

Bulawayo City Council



**REVIEW AND PREPARATION OF THE
BULAWAYO MASTER PLAN (2019 – 2034)**

VOLUME TWO (2)

**REPORT OF
SURVEY**

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LIST OF ABBREVIATIONS

ADB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
ARV	Anti Retroviral Therapy
BCC	Bulawayo City Council
BBR	Bulawayo Beitbridge Railways
CABS	Central African Building Society
CBD	Central Business District
CBO	Community Based Organisations
CBR	Crude Birth Rate
CIDA	Canadian International Development Agency
CVR	Central Vehicle Registry
DDC	District Development Committee
ECD	Early Childhood Development
EMA	Environmental Management Agency
EMP	Environmental Management Plan
EIA	Environmental Impact Assessment
EID	Early Infant Diagnosis
ESAP	Economic Structural Adjustment Programme
FBC	FBC Bank Limited
FGD	Focus Group Discussion
GFR	General Fertility Rate
HAART	Highly Active Antiretroviral Therapy
HTC	Hillside Teachers College
HIV	Human Immune Virus
HPZ	Housing People of Zimbabwe
ICT	Information Communication Technology
ICU	Intensive Care Unit

IDBZ	Infrastructure Development Bank of Zimbabwe
IDS	Intercensal Demographic Survey
I – PRSP	Interim Poverty Reduction Strategy Paper
JJA	Jairos Jiri Association
KG VI	King George 6
LA	Local Authority
LSU	Lupane State University
MBA	Masters in Business Administration
MDGs	Millennium Development Goals
MDP	Municipal Development Partnership
MLGPW&NH	Ministry of Local Government Public Works and National Housing
MoA	Ministry of Agriculture
MoHTE	Ministry of Higher and Tertiary Education
MoPSE	Ministry of Primary and Secondary Education
NGO	Non Governmental Organisation
NHF	National Housing Fund
NRZ	National Railways of Zimbabwe
NSSA	National Social Security Authority
NUST	National University of Science and Technology
O – Level	Ordinary Level
PDC	Provincial Development Committee
PDL	Poverty Datum Line
PMTCT	Prevention of Mother to Child Transmission
POSB	Post Office Savings Bank
PPP	Public Private Partnership
PSMI	Premier Service Medical Investment
RUAF	Resource Centre for Urban Agriculture and Forestry
RTCPA	Regional Town and Country Planning Act
SADC	Southern African Development Corporation
SDCs	School Development Committees
SDGs	Sustainable Development Goals
SEIA	Strategic Environmental Impact Assessment
SIDA	Swedish International Development Agency
STIs	Sexually Transmitted Infections
TB	Tuberculosis
ToR	Terms of Reference
UBH	United Bulawayo Hospitals
UCE	United College of Education
UDI	Unilateral Declaration of Independence
UN	United Nations Development

UNAIDS	United Nations Programme on HIV and AIDS
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children’s Fund
USAID	United States International Development
VCT	Voluntary Counseling and Testing
WB	World Bank
WHO	World Health Organisation
WITC	Westgate Industrial Training College
ZDF	Zimbabwe Defence Forces
ZECO	Zimbabwe Engineering Company
ZETDC	Zimbabwe Electricity Transmission and Distribution Company
ZHPF	Zimbabwe Homeless Peoples Federation
ZITF	Zimbabwe International Trade Fair
ZIMASSET	Zimbabwe Agenda for Sustainable Socio Economic Transformation
ZIMSTAT	Zimbabwe National Statistics Agency
ZINACHO	Zimbabwe National Association of Housing Co-operatives
ZINARA	Zimbabwe National Road Authority
ZINATHA	Zimbabwe National Traditional Healers Association
ZPC	Zimbabwe Power Corporation
ZPCS	Zimbabwe Prison and Correctional Services
ZRP	Zimbabwe Republic Police
ZSM	Zimbabwe School of Mines
ZTV	Zimbabwe Television

CHAPTER 1

1.0 INTRODUCTION

1.1 GENERAL BACKGROUND

1.1.1 Bulawayo is the second largest city in Zimbabwe and the capital of Matabeleland Province in the South Western part of Zimbabwe. The city was founded as a centre by Lobengula, King of the Ndebele in 1870. It was occupied by the pioneer column under the leadership of Rhodes on 4 November 1893 and was declared a town by Dr. Jameson on 1 June 1894. The city became a municipality on 27 October 1897 and was elevated to city status in 1943.

1.1.2 As at 1946 the city had a population estimate of 33 322 and in 1956 the population had increased to 65 500¹. In 1962 the city had a population of 210 600 people growing to 236 320 people in 1969. The 1st Master Plan for Bulawayo became operative on the 18th March 1980 and had a population projection of 392 300². The population grew to 495 317 in 1982 and 620 935 a decade later. The moderate population growth continued to 676 650 in 2002 before taking a downward turn to 655 675 in 2012. According to the Intercensal Demographic Survey of 2017 there were about 741052 people in 2017 during the intercensal survey.

1.1.3 Over the past fifty six (56) years, the city has recorded considerable growth in terms of population and residential expansion which has called on the need for up to date integrated comprehensive development guides for the entire city. See Map 1 which shows the City's Historical Growth.

1.1.4 The preparation of the operative Master Plan for Bulawayo commenced in the year 2000 but was approved on the 29th January 2004. That was more than eighteen (18) years ago and with the passage of time, the physical, economic, social and environmental conditions upon which the plan's proposals were premised have changed significantly. There are new planning challenges and issues which have emerged and some of the old issues as indicated in the Terms of Reference (ToR) have continued to persist. This is more so given that planned activities are not always developing as intended as conditions are ever changing and dynamic. Under such circumstances, the review of the current plan and the preparation of a new plan for Bulawayo Planning Area is in line with international best practices where periodic revisions should be the norm.

1.1.5 The present study for all practical purposes comprises of two major components which are, the review of the Bulawayo Master Plan (2000 – 2015) and the preparation of Bulawayo Master Plan (2018 – 2033). The plan review exercise should be seen as a stage

¹ The City of Bulawayo – Official Guide, 2nd Edition, March 1957

² Bulawayo Master Plan, The Written Statement, November 1981

in the planning process aimed at enhancing the plan's responsiveness to changes in the planning environment which calls for appropriate planning intervention measures. In view of the foregoing, this project may be viewed as a re-planning exercise, since some new proposals and recommended strategies in the operational plan will change.

- 1.1.6 The decision to review and prepare a new Master Plan for Bulawayo stems from the high priority accorded to the city which was once the industrial hub of the country and its role as a major catchment and service centre for the western region. There is a need to address the planning issues and challenges facing the city as identified in the ToR, the need to prepare a Master Plan for Bulawayo cannot be over emphasized. There is need for the preparation of a Master Plan which is comprehensive and which will ensure that envisaged developments proceed in a plan-led orderly manner resulting in the creation of an image and character befitting of Bulawayo as a well-planned since its establishment in 1893. It is against this background that the City of Bulawayo engaged the services of a planning consultancy, given capacity constraints, to work in close liaison with their staff in order to prepare a revised Master Plan for the City of Bulawayo covering the period 2018 – 2033.

1.2 FORM AND CONTENT OF THE MASTER PLAN

- 1.2.1 The plan is presented in two parts that are largely integrated. Part 1 consists of a study of the area, presents data on the existing situation in the City of Bulawayo, including an analysis of such data. In addition, problems, constraints, issues and potential in terms of development are identified, plan considerations, development growth scenarios are evaluated and the preferred development growth scenario. The Study is also aimed at understanding and analyzing trends so that future issues can be identified. The Study is intended as a background and leads into part two, called the Written Statement. The Written Statement presents the spatial structure of the chosen development growth scenario, sets out a set of strategies, policies and programmes for the future development and growth of the area. Traditionally Master Plans have been mainly concerned with allocating sufficient land in appropriate locations to enable settlements to grow and develop in an efficient and harmonious way and setting down detailed proposals to control development. It has become apparent that while this is still a key requirement modern Master Plans need to go further and suggest policies and programmes that may strengthen the local economy and where possible assist in employment creation. A modern Master Plan also needs to take due regard of the need for sustainable development and therefore place environmental considerations in the fore front.
- 1.2.2 Overall the Study will seek to come up with a set of issues, based upon thorough research and understanding of Bulawayo's situation which will provide the basis for preparing proposals for future development in the Written Statement.

1.3 NEED AND JUSTIFICATION FOR THE PLAN

1.3.1 The current Master Plan for the City of Bulawayo was prepared eighteen years ago in 2000 and since then the city's population has continued to grow. Population increase has continued to exert pressure on available services and facilities and has resulted in increased needs by the communities. At the same time, there is pressure to redirect city growth in a new growth path during an era where the city has endured a long drawn out period of economic depression. In addition, most of the physical, social, economic and environmental conditions and considerations upon which the current plan was prepared have changed and there are new emerging issues and challenges which the operational plan had not anticipated at the time of preparation. All these necessitate the preparation of a revised Plan for the City of Bulawayo.

1.3.2 The need for a review of the 2000 plan and the preparation of the Bulawayo Master Plan (2018 – 2033) becomes more compelling and justified due to the fact:

- i) There have been a lot of new developments which have taken place in the city since then which necessitates that an up to date existing and land use map be prepared;
- ii) With an increase in the demand for various land use categories, there is a need to prepare local area development plans, detailed layout plans, precinct and subject development plans to satisfy the development demands and pressures in the city;
- iii) An increase in development applications and the intensification of development ensures the efficient use of land and prevents urban sprawl. This however, strains existing infrastructure capacities. Such developments call for intervention by way of aligning demands and corresponding infrastructure capacity.
- iv) The operational plan was prepared without the benefit of a Strategic Environmental Impact Assessment Study resulting in the production of an Environmental Management Plan (EMP) is an important aspect in view of the need to assess and evaluate the environmental implications of recommended proposals prior to their implementation so as to put in place appropriate mitigation measures.
- v) The 2000 plan downplayed the issue of urban agriculture in the city. It is important that the city be self-sustaining with regards to agricultural production and for this reason the revised plan should recommend strategies for developing agriculture in the planning area.
- vi) The city has always been the industrial hub for the country but most industries in

the city relocated or closed down. As a result, there is need for the revised plan to formulate strategies and policies aimed at inducing economic growth in the City and also to guide investment decisions.

- vii) The city has over the years faced challenges with strategic infrastructure services particularly regarding the security of water supply, electricity supply, sewage disposal and protection of natural resources. Service infrastructure master plans become essential requirements in charting a definitive way forward in providing services for the population and for planning for the city's local economic development;

- 1.3.3 The above requirements and considerations largely inform the need and justification for the preparation of a new Master Plan for the City of Bulawayo. The new Master Plan (2018 – 2033) for the City of Bulawayo will deal with all issues not addressed in the current plan such as economic and tourism development, quality and standards of residential neighbourhoods which will make Bulawayo a liveable, functional, safe and environmentally friendly city in line with the principles of new urbanism and modernity. Importantly, it is expected that the revised plan would lead to an improved quality of life for the residents by addressing key issues such as housing, social and community facilities, infrastructure and economic activities amongst others.

1.4 PURPOSE AND SCOPE OF THE PLAN

- 1.4.1 The primary purpose of the Bulawayo Master Plan is for the City to have a comprehensive document which is founded on a development trajectory which has a clear development vision, mission and explicitly articulates the goal, objectives and policies which will guide and shape the future development of the city in a sustainable manner. In addition, the plan will contain policy statements and proposals which deal with major issues of population, housing, the economy, employment, social and community needs, infrastructural services, transport, the environment and the overarching budgetary element for the city boundary over the span of the Master Plan.
- 1.4.2 A well-planned city will place the Bulawayo Metropolitan area on a developmental path underpinned by a rational spatial structure and form that will make it cost effective and efficient for the Local Authority to fulfill its service delivery mandate. A clearly articulated plan for service delivery in the short, medium to long term in terms of the provision of planned infrastructure, creation of a decent living environment and leveraging for local economic development and the associated spinoffs. This exercise should be a pivot and axle aimed at reasserting Bulawayo's status as major investment destination in this critical development stretching from the Cape through Bulawayo to Cairo. This Master should in the long term synchronise itself with government's economic revival agenda and serve as a magnet to reassert it as part of critical movement and investment corridor. The idea should be geared towards breaking the

isolationist regional policies and initiatives which have over the years resulted in the creation of secondary transportation and investment corridors between the southern and northern tips of the African continent. Bulawayo is undoubtedly a strategically positioned regional growth node in southern Africa.

1.4.3 The role, functions and Purpose of the Master Plan area as follows:

- i) Developing a spatial model informed by a spatial vision which takes into account city spatial expansion, compact poly-centricity and encouraging spatial integration;
- ii) To provide a spatial development framework by which the City of Bulawayo can establish priorities and prepare Capital Improvement Budgets and Programmes.
- iii) To review the existing land uses, make proposals for changes where required and zone land for specific purposes with a view to meeting future development needs.
- iv) To provide Bulawayo City Council with a technical document which will provide a framework to inform development control decisions through land use management tools within the city limits
- vi) To provide a coordinating role for the programmes of private, state and parastatal organisations
- vii) To promote the physical environment of Bulawayo as a setting for human activities which is functional, efficient, healthy and conducive
- viii) To promote optimum use of land underpinned with a need to safeguard the environment.
- ix) To focus attention and discussion on the future development character of the City of Bulawayo by encouraging public participation in the planning process and formulation of proposals.
- x) To take into consideration professional and technical knowledge to ensure that informed political decisions are made concerning the utilization of land within the city boundary.
- xi) Development of clear urban development zones and spatial development policy regulations

1.4.4 Although the Bulawayo Master Plan has a bias towards land use, it none the less addresses key issues of environmental concerns, the informal sector, investment promotion and urban agriculture. The plan is much wider in scope than traditional Master Plans. The challenge facing the city is to promote economic growth strategies in light of the economic stagnation and decline which has characterized the city in recent years.

1.5 SCOPE, FUNCTIONS AND UNDERLYING PRINCIPLES

- 1.5.1 The scope of this project is such that it entails the review of the current Bulawayo Master Plan (2000 – 2015) and the preparation of a long term forward development guide for Bulawayo covering a period of 15 years (2019 – 2034). The revised Master Plan is meant to be used as a development guide and framework for land use management tool by the City of Bulawayo. At this scale of planning, the Master Plan provides strategies, policy statements, proposals, recommendations and guidelines that deal with major issues of population dynamics, land use dispositions and land use activities and spatial modelling. It also deals with economic growth, investment promotion and employment creation, housing provision, social and community services and requirements, sustainable development and natural resources conservation and infrastructure provision and requirements. Importantly the plan should also make recommendations on how land in the Planning area will be utilised during the plan period, in terms of land use and zoning arrangements. The scope of the plan requires that it not only addresses physical elements but also addresses issues of environmental concern which will necessitate that all the development proposals be subjected to a Strategic Environmental Impact Assessment (SEIA). The Master Plan is expected to be comprehensive and multi sectoral in content and coverage.
- 1.5.2 As a technical and working document, the Bulawayo Master Plan (2019 – 2034) will serve the following functions:
- i) To provide the City of Bulawayo with a tool for spatial development guidance and a framework for land use management within the Planning Area.
 - ii) To provide a framework for city economic revival and development of the local economy;
 - iii) To provide a spatial framework by which the City of Bulawayo can model city growth, establish development priorities and draw up estimates of funds that will be used to provide social and community facilities and infrastructure;
 - iv) To promote the rational use of land, while at the same time balancing the requirements of developing the physical environment and the need to safeguard and protect the natural environment in order to ensure sustainable development;
 - v) To project future population estimates as a basis to project future land use requirements, identify and reserve land to meet these requirements within the constraints and opportunities identified
 - vi) To provide technical and professional information to the political decision making process to aid in making informed decisions regarding the physical developments in the Planning Area.

1.5.3 In addition, the preparation of Bulawayo Master Plan (2019 – 2034) is informed by the following underlying principles;

- i) **Consultations and Consensus Building** – Community members and stakeholders must be given the opportunity to participate in the plan preparation process and make valuable inputs in the areas of spatial analysis, establishment of planning issues/challenges and making proposals;
- iii) Use of **Credible Data** on which the plan preparation process is based;
- iv) **Adoption of a spatial model** for a new developmental spatial outlook;
- iii) **Sustainable Development**, the developments should meet the needs of the present generation without compromising the ability of future generations to meet their own needs. This implies the protection as well as conservation of the natural and built environment;
- iv) **Implementability and Cost Effectiveness** of the Development Plan's proposals and recommendations

1.5.4 In addition, the preparation of the Master Plan for the City of Bulawayo will be informed by the following general guiding principles:

- i) An action oriented and proactive plan that primarily addresses areas of conflicts, existing planning issues/challenges and at the same time identify development opportunities on a new growth trajectory;
- ii) Instilling public participation and promotion of a strong sense of ownership of the plan by the community and stakeholders;
- i) A dynamic approach to planning based on a spatial development model with clear monitoring and review mechanisms in place to ensure the accommodation of ever changing conditions upon which the plan is premised;
- ii) Putting in place mechanisms for enabling implementation of the plan by the various role-players including government as well as evaluation of the plan's performance periodically or through implementation of various elements through subordinate plans and instruments;
- iv) Responsibility and accountability among institutions and stakeholders which have a stake in the development of the city;
- v) Integration of physical, social, economic and environmental consideration and elements into the plan;
- vi) Capacity building and training as part of the planning process and output;
- vii) Observance of international environmental conventions and protocols of which Zimbabwe is a signatory, especially with regards to sustainable human settlements e.g. Agenda 21 and other relevant national policies and Acts relating to development planning.

- 1.5.5 The plan will also be aligned to Sustainable Development Goals (SDGs). This is because the SDGs concepts resonate well with the country's development ideas which puts a lot of emphasis on themes such as sustainable development, environmental protection, consultation etc.
- 1.5.6 It is therefore important that the preparation of this plan is underpinned by these principles and that all the other underlying and general principles indicated above be applied in the preparation of this plan and be reflected in the development proposals. Finally during the preparation of lower level plans down to detailed layout plans, principles of social integration will be key in the provision of residential plots and other social facilities and amenities.

1.6 STATUTORY PROVISIONS

- 1.6.1 The legal provisions for the preparation of Bulawayo Master Plan are enshrined in part IV of the Regional, Town and Country Planning Act (1976) Chapter 29: 12 revised edition 1996, as read with the Regional Town and Country Planning, Master and Local Plans Regulations. The provisions of these sections of the Act apply to Bulawayo on account of it being a Local Authority. The preparation and revision of Master Plans are statutorily provided by Sections 13 (1) (b) and (c) of the Act. Section 13 (1) mandates a Local Planning Authority to undertake a study of the planning area to the extent it considers necessary of any neighbouring area examining matters it considers may be likely to affect the development or redevelopment of the area.
- 1.6.2 The study area for the Master Plan will constitute a 10 km radius from the current Master Plan Boundary. In terms of Section 13 (b), before altering or replacing any Master or Local Plan, the Local authority must undertake a fresh study of the planning area or any part thereof or of a neighbouring area in this case Umguza Rural District Council, examining matters which are likely to affect development. Section 13 (2) further indicates that when reviewing a Master or Local Plan any matters relating to a neighbouring area, the Local Planning Authority shall consult with any local planning authority or local authority which has jurisdiction in that area concerning those matters.
- 1.6.3 Section 14 (2) states that a master plan prepared in terms of subsection (1) shall:
- (a) formulate the policies of that authority and its general proposals for the planning area in respect of the co-ordinated and harmonious development or re-development and other uses of land, including measures for:
 - (i) the regulation of the use of land and the construction and use of buildings;
 - (ii) the conservation and improvement of the physical environment, including the preservation of buildings of special architectural merit or historic interest;
 - (iii) the economic development of the planning area; and
 - (iv) the movement of traffic therein, including the closure and diversion of roads

- (b) set out the relationship of the proposals to the major proposals for land use and traffic in any neighbouring area which may affect the planning area; and
 - (c) indicate the manner in which the policies and proposals are justified by the study and by any other information obtained by the local planning authority;
 - (d) indicate the parts of the planning area which are of high scenic value and should be protected
- 1.6.4 Section 14 (3) provides that in preparing the master plan, the local planning authority shall:
 - (a) consult neighbouring local planning authorities and local authorities and any other statutory or other body whose activities or plans may affect the master plan with the objective of ensuring co-ordination of policies; and
 - (b) have regard to-
 - (i) the information obtained in the study and any other information obtained by that authority
 - (ii) the provisions of any regional plan, whether in operation or in the course of preparation, which may affect the planning area or, in the absence of such a plan, the relationship between the planning area and the surrounding area and
 - (iii) the current economic and social circumstances prevailing in the area and the surrounding areas; and
 - (iv) the phasing of any development in terms of the master plan, the order of priorities in respect of proposals and the reasons therefore and
 - (v) the resources likely to be available
- 1.6.5 Section 14 (4) : the Local Planning Authority shall indicate in its master plan any part of the planning area which it has selected for comprehensive development, redevelopment or improvement as a matter of priority.
- 1.6.6 Section 14 (5) : the master plan shall consist of a written statement with proposals illustrated on a map as appropriate and accompanied by other maps, diagrams, illustrations and descriptive matter as the local authority considers appropriate.
- 1.6.7 Section 14 (6) : A master plan may include proposals in relation to any neighbouring area if the Minister after consultation with any other local planning authority concerned has authorized the local planning authority to include that area within the master plan, but the inclusion of such neighbouring area shall not be construed as meaning that the local planning authority which has prepared the master plan shall be the local planning authority for that neighbouring area for the purposes of any other provision of the Act.
- 1.6.8 Section 15 (1) : In formulating and before finally determining the contents of the master plan, the local planning authority shall take such steps as will in its opinion ensure that

there is adequate consultation in connection with the matters proposed to be included in the master plan.

1.6.9 Section 15 (2): After adopting the master plan but before submitting it to the Minister, the local planning authority shall;

- (a) place on public exhibition for two months a copy of the draft master plan with a statement indicating the time within which objections to or representation in connection with the draft master plan may be made to the Minister with copies thereof being sent to the local planning authority; and
- (b) give public notice of the place or places at which and the period for which the draft master plan will be exhibited and the time within which objections to or representations in connection with the draft master plan may be made.

1.6.10 Section 16 (1): At the expiry of the two (2) months the local planning authority shall submit to the Minister

- (a) the draft master plan exhibited
- (b) a report of the study carried out
- (c) a report on the objections and representations received indicating the views of the local planning authority on such objections or representations

1.6.11 Section 16 (2): The Minister may return a draft master plan submitted with directions as to-

- (a) the submission to him of additional information;
- (b) the giving of further publicity in respect of any particular matter

1.6.12 Section 16 (3): In considering a draft master plan submitted or resubmitted the Minister shall-

- (a) take into account the reports submitted and any other matter which appears to him to be relevant, whether or not it was taken into account by the local planning authority; and
- (b) consider any objections or representations made in so far as they have not been met or withdrawn, may refer them to the Administrative Court for determination or to a local inquiry for investigation; and
- (c) cause a local inquiry to be made into any matter which in his opinion should be the subject of such an enquiry

1.6.13 Section 16 (4): The Minister may approve the draft master plan submitted or resubmitted subject to such modifications or reservations if any as he deems fit or reject such draft master plan and shall thereafter give notice in the gazette of his decision which notice shall if he has approved such draft master plan specify the date on which the master plan shall become operative.

- 1.6.14 Apart from the provisions of the RTCPA mandating the preparation and review of Master Plans, there are Acts, Policies and Regulations whose provisions are considered relevant to the Review and Preparation of Bulawayo Master Plan. These are listed in Box 1.1. This is in the sense that the proposals and recommendations of the plan must be in harmony with and be guided by these relevant Acts, Policies and Regulations. The Bulawayo Master Plan must be seen as a sub set of the national development planning framework upon which other levels of plans and policies draw inspiration from. There are interrelationships, complementarities and linkages between these various levels of plans and policies in the sense that lower order plans and policies are informed and draw inspiration from the higher order plans and policies.

Box 1.1: Plans, Acts, Policies and Regulations considered Relevant to the Preparation of Bulawayo Master Plan (2019 – 2034)

- Regional Town and Country Planning Act 29: 12
- Urban Councils Act (Chapter 29:15)
- Sustainable Development Goals
- National Housing Policy 2012
- Environmental Impact Assessment Act 2007
- Statutory Instrument 216
- Mines and Minerals Act
- Interim Poverty Reduction Strategy Paper
- Forestry Act CAP 19:05
- Education Act 25:04

1.7 INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS

- 1.7.1 This section is aimed at documenting the existing institutional and administrative structures that underpin the planning and implementation of projects, programs and strategies within the Bulawayo planning area. It highlights and analyses the major roles

and responsibilities, coordination and cooperation linkages between various development agents within Bulawayo. The major purpose of this analysis is to establish unnecessary duplication of efforts as well as ways to enhance efficiency in the delivery of services.

- 1.7.2 Central and Local Government institutions undertake various development projects that have a bearing on the successful implementation of the Bulawayo Planning Area. At the national level, all Ministries, Departments and parastatals are involved in one way or the other in the development of Bulawayo. However, Ministries such as the Ministry of Local Government, Public Works and National Housing, Ministry of Lands and Resettlement, Ministry of Health and Child Care, Ministry of Education and Skills Development and the Ministry of Water and Energy Resources play a pivotal role in the city.

1.8 NATIONAL LEVEL INSTITUTIONS

- 1.8.1 The main pieces of legislation which define the operations of the Local Government Sector are the Provincial Councils and Administration Act, The Urban Councils Act, the Rural District Councils Act, the Traditional leaders Act and the Regional Town and Country Planning Act. As shown in table 1 Local Government is responsible for Urban and Rural Local Authority services, Traditional Leadership Support Services, Physical Planning services and Civil Protection services while Public Works is responsible for Architectural Services, Engineering Services, Quantity Surveying, Construction and Maintenance, Valuation and Estates Management Services, National Housing and Social Amenities. The Ministry also co-ordinates policies, plans, programmes and strategies for rural and urban development at national, provincial and local levels – that is between Central Government Ministries and Departments and Local Authorities in the various provinces.
- 1.8.2 Under the Regional, Town and Country Planning Act (1976) Chapter 29: 12 revised edition 1996, as read with the Regional Town and Country Planning, Master and Local Plans Regulations, the Minister responsible for the Ministry of LGPW & NH is currently responsible for the orderly and progressive development of land in both urban and rural areas. On a day to day basis, the Minister's responsibilities have been delegated to several Departments such as the department of Physical Planning and Urban State Land. The Department of Physical Planning is responsible for formulating national policies and guidelines on all aspects of physical planning. At present, responsibilities for preparing Master and Local Plans have been delegated to Local Authorities although the Department of Physical Planning prepares Master and Local Plans on behalf of the Minister especially for the Local Authorities which do not have the capacity.

1.8.3 The MLGPW & NH provides national leadership and directions on customary and traditional policy matters to all tribal administrative institutions across the country as well as provision and management of senior human resources for all Local Authorities (through the Local Government Board). The Department of housing is responsible for the formulation of housing policies and advising Local Authorities on all issues related to implementation of housing policies.

1.9 SUB NATIONAL LEVEL INSTITUTIONS

1.9.1 The Minister of State for Provincial Affairs

1.9.1.2 The Minister of State for Provincial Affairs represents the office of the president and cabinet at the Provincial level. The Minister of state is the interface between the general public and the office of the President and Cabinet. In addition to being a political head of provincial government official the roles of the Ministers of State includes the following amongst others:

- To be the interface between the general public and the office of the President and Cabinet.
- To preside over state occasions such as Independence Day Celebrations and burial of Provincial Heroes within the province.

1.9.2 Provincial Administration

1.9.2.1 The Provincial Administration is headed by the Provincial Administrator who in principle heads and coordinates all Central Government Departments in the Province. As the chairperson of the Provincial Development Committee, which consists of heads of Central Government Departments, Local Authorities, Non Governmental organisations and other key stakeholders in the Province. The Provincial Administrator is responsible coordinating the various activities of Central Government ministries and agencies at Provincial level to ensure coordinated planning, development and implementation as well as overseeing the preparation, implementation and monitoring of Provincial Development Plans. As a result the Provincial Development Committee is the fulcrum of Provincial development and planning.

1.9.3 Bulawayo City Council – The Local Authority

1.9.3.1 The Planning Area for the Bulawayo Master Plan is administered by the City of Bulawayo, the 2nd largest city on Zimbabwe. The powers and functions of the Bulawayo City Council are derived from the Constitution of the Republic of Zimbabwe and a range of local government legislation such as the Urban Councils Act (Chapter 29:15) provides

for the setting up of town and municipal councils by the President. The Act empowers the Minister of Local Government to give direction to the local councils concerning administration, control and management of the council. The Local Authorities are mandated with powers to exercise good governance and promote development within their areas of jurisdiction including the provision of:

- | | |
|---------------------|-----------------------|
| • Primary Health | Roads |
| • Primary Education | Environmental Health |
| • Housing | Sanitation |
| • Water Supply | Electrical Department |

1.9.3.2 Other activities which LAs are undertaking include Town Planning, social and community development and trade licensing. Although the provision of water is being undertaken by the city of Bulawayo, in practice ZINWA provides water and sewerage.

1.9.3.3 Bulawayo City Council is composed of 29 wards with an elected councilor residing within the ward. The Local Authority is tasked with responsibilities of performing all functions as per Urban Councils Act. The main offices for the city are located at the city hall and tower block but there are sub offices in the various high density residential areas.

1.9.4 District Administration

1.9.4.1 The District Administration is headed by the District Administrator who in principle heads and coordinates all Central Government Departments in the district. As the chairperson of the District Development Committee, which consists of heads of Central Government Departments, Local Authorities, Non Governmental organisations and other key stakeholders in the district. The District Administrator is responsible coordinating the various activities of Central Government ministries and agencies at District level to ensure coordinated planning, development and implementation as well as overseeing the preparation, implementation and monitoring of Provincial Development Plans. As a result the District Development Committee is the fulcrum of district development and planning. However, there is a weak link between central government district administrators and the City's officers responsible for residential areas such as housing officers.

Table: 1 - Major institutions involved in the preparation and implementation of Bulawayo Master Plan

LEVEL	INSTITUTION	RESPONSIBILITIES
NATIONAL	Ministry of Local Government Works & Public Housing	<p>Various Departments in the Ministry are responsible for:</p> <ul style="list-style-type: none"> • Formulation and implementation of housing policies • Formulation of policies and guidelines on physical planning matters • Approval of Master Plans • Overseeing Tribal Administration • Coordinating, formulation and implementation of rural and urban development plans
PROVINCIAL	Office of the Resident Minister	<ul style="list-style-type: none"> • To be the interface between the general public and the office of the President and cabinet. • To preside over state occasions such as independence day celebrations and burial of Provincial Heroes within the province. • To ensure the successful implementation and completion of all Government Programs and projects at district and provincial level. • To assist members of the public the public with information on Government programmes and projects in the Province. • To direct members of the public to relevant Ministries for assistance. • To liaise with Local Authorities and residents to ensure adequate and efficient service delivery.

	Office of the Provincial Administrator	<ul style="list-style-type: none"> • Coordination of preparation and implementation of Provincial Development Plans, • Overseeing implementation of projects and programmes funded through Central Government departments and other stakeholders at Provincial level
DISTRICT	Local Authority	<ul style="list-style-type: none"> • Good Governance • Spearheading developments • Provision of roads, water, health, education etc • Physical Planning,
	District Administration	<ul style="list-style-type: none"> • Coordination of preparation and implementation of District Development Plans • Overseeing implementation of projects and programmes funded through Central Government departments and other stakeholders at District level
LOCAL AUTHORITY	Bulawayo City Council	<ul style="list-style-type: none"> • Preparation and implementation of Bulawayo Master Plan through line function departments in conjunction with relevant stakeholders
LOCAL COMMUNITY	Residents and interested and affected parties	<ul style="list-style-type: none"> • Expression of needs and aspirations for incorporation into the master plan

Source: Job Jika & Associates

1.9.4.2 While there is a well-defined institutional hierarchy, there is no strong alignment of the respective institutional or sector plans (either bottom up or vice versa) with the Bulawayo Master Plan and this is generally the case nationally. Line function or internal departmental sector plans are not structurally integrated as they find expression in the master plan. Successful master proposals implementation is best achieved through integrated and coordinated roles in the service delivery process.

1.9.4.3 Communities in Bulawayo are consulted in the planning and development process but this can be strengthened through ward-based planning where community needs are

captured under the microscope. More can be done public consultation in order to gather views on how the people desire their spaces to be shaped as well as their vision for the future of their city in line with the city's development vision.

1.9.5 CHALLENGES AND OPPORTUNITIES

1.9.5.1 The existence of various institutions involved in development planning and administration reflect the evolution and development of various Government structures and the country's development needs. Provincial and District Administration structures were a common phenomenon in the rural areas and pre-date the country's independence while Local Authorities were later established. District Administration structures were established to co-ordinate and support the various sector programs in the districts while Local Authorities were established to perform similar functions within the districts. This has created dual structures – one coordinating vertical linkages and the other horizontal linkages – which creates a new problem of coordinating vertical and horizontal linkages. Planning functions are assigned to the City Council as well as the Department of Physical Planning. In fact, local authorities, district, provincial and national tiers of government should be viewed as spheres of government which are equal, distinctive, interdependent and interrelated. The prevailing intergovernmental relations where the tiers of government are hierarchically ordered in a top-down subordinate relationship is problematic.

1.9.5.2 The establishment of Provincial Development Committees (PDC) and District Development committees (DDC) is an attempt to provide a forum for various institutions to co-ordinate development as well as align their various initiatives. As coordinating committees, the Provincial and District Development Committees are composed of staff from the District Administration, Central Government, Local Authority and various development agencies. To date these committees co-ordinate the preparation of Provincial and District Development Plans which are largely socio-economic plans. Despite these efforts, the program activities of the various stakeholders are hardly synchronized as there is not enough consultation with the Local Authority on some of the Government programs. Government departments tend to operate as separate entities, those in the district report to their provincial headquarters, while those in the provinces report to the resident Minister or report directly to their headquarters in Harare.

1.9.5.3 In summary, Bulawayo Planning Area has multi layered administrative structures with overriding powers and at times overlapping responsibilities. In addition, the city has to compete for attention and resources with Harare. There is need to rationalize these

structures in order to improve on decision making processes and improve on service delivery.

1.10 CONSULTATIONS

1.10.1 The preparation of this Report of Study has been undertaken in through consultation with both Department of Physical Planning and the Bulawayo City Council/ They have provided key information and have acted as a reference panel to review progress. Widespread consultation has also been attempted with the full range of both the public and private sectors in Bulawayo in order to obtain up to date and relevant information as well as to appreciate the point of view of different sections of opinion in the city. A consultation letter was sent to more than one hundred (100) organisations including the Minister of State and the Provincial Administrator. More detailed letters and meetings requesting specific information were also sent to a number of critical agencies who held vital information concerning the development potential of Bulawayo. Some households and industrialists were involved through a household and industrial questionnaire.

1.11 STUDY AREA

1.11.1 From the onset of the study an important decision had to be made about the area to be covered as simply studying the area currently gazette as the Municipal boundary would not provide sufficient long term vision. A Master Plan needs to look at least 15 year ahead. It was therefore agreed to widen the study area to incorporate properties within a 10km radius from the existing boundary so that consideration could be given to possible expansion area in future. In accordance within this decision it was agreed for purposes of the Report alone to incorporate into the study the following:

- The gazette Municipal boundary
- Umguza Irrigation Schemes
- Khami Prison
- Worringham
- Sihlengeni communal lands
- Heany Junction

1.11.2 The Study area is shown on Map Two (2). It should emphasized again that the whole point of this wide coverage is simply to provide a relatively unconstrained view of Bulawayo and its surrounding areas. It should not be interpreted in any way as an attempt to incorporate the areas into the Bulawayo Municipal boundary. The Written Statement of the Master Plan will need to address issues of additional land that may need to be incorporated into the long term if it can be shown that such a need exists. The Report of Study will among other analyse the need, the prospects and existing land availability and suitability to meet the development needs.

1.12 REPORT STRUCTURE

- 1.12.1 This project being a review of an operational Master Plan and consequently the preparation of a new plan will mean the review of the current plan in terms of proposals and the recommendation of new proposals, strategies and policies in the light of current planning challenges facing the city. The review process will cut across all the sectors which were dealt with by the 2000 Master Plan by way of benchmarking each sector against issues identified, proposals made to address the challenges identified per sector. The review process will also establish the extent to which the various sectoral proposals were addressing the issues identified in each sector and the extent to which the proposals have been implemented as well as implementation constraints.
- 1.12.2 The Report of Study is presented as a situational profile of Bulawayo Planning Area reflecting our basic findings of our studies into all aspects of Bulawayo's development and likely future trends. It is a combination of data collection, data analysis and issue highlighting. The report is structured into 3 parts. The 1st part consists of background matters and includes this introduction and chapters of the Regional context and historic setting of Bulawayo and its natural resource base. Part 2 looks at the existing situation with regard to the demographic profile, land use dispositions, activities and practices; state of social and physical infrastructure, traffic, connectivity of land uses and transport modes, state of the environment, economic structure and indicators amongst others. Part 3 is a concluding section designed to bring together the main problems and issues which have to be addressed in the Written Statement. In addition the Report of Survey presents a spatial analysis of the Planning Area both from an urban planning and urban design perspective in order to establish land use conflicts and assess if the City of Bulawayo meets the liveability, safety, functionality and local character/image befitting the second city in Zimbabwe.
- 1.12.3 The report has been structured in such a manner that all the required information follows a logical and sequential order. This is intended to facilitate a clearer understanding of the whole report. Below is an outline of the report structure:

Chapter 1 - This chapter serves as a general introduction to the Report of Survey, as it gives a general background and overview about the project. This is in terms of explaining the nature of the project, a review and preparation of the Master Plan for Bulawayo Planning Area. The chapter goes on to provide information for understanding the statutory framework under which the plan is currently being reviewed and highlighting its justification. This chapter also assesses the existing institutional and administrative arrangements within the Bulawayo Planning Area to facilitate governance, project implementation and delivery of services. In the process the chapter notes the levels of coordination and cooperation among the various structures and departments responsible for plan implementation, services delivery and governance in the Planning Area. The chapter also assesses and evaluates the existing institutional

framework for physical planning within the Planning Area. It concludes by highlighting the limitations and constraints of existing institutional and administration arrangements in the Planning Area. It further provides the underlying principles guiding the review and plan preparation process.

Chapter 2 – This chapter contextualizes the Planning Area in terms of location, size and boundaries and assesses the extent to which the 2000 plan captured the functions, linkages and impacts of the Planning Area in national, regional and international contexts. In this chapter changes in Planning dynamics and give an update on such changes since the plan was prepared in an effort to reflect the existing situation. This chapter will serve in providing the base line information necessary for understanding the role and place of Bulawayo both regionally and nationally.

Chapter 3 – This chapter provides information on the physical environment of Bulawayo Planning Area and deals with variables such as vegetation, climate, physiography and landforms, geology etc as well as an analysis of these elements and implications for physical developments. The chapter also provides an inventory of the natural resource base of the area, mineral resources on the environment as well as programmes for the sustainable utilization of natural resources. Also presented in this chapter is information on prevailing physical constraints to developments in the Planning Area and an analysis of the impacts of developments on the physical environment. The chapter concludes by providing a constraints zoning map of the Planning Area. The information and analysis presented in this chapter lays the foundation upon which some spatial development decisions are recommendations area made later.

Chapter 4 – This is a critical and important chapter of the Study in that it presents a situational profile of the existing land use disposition, activities and practices as they obtain in the Planning Area. The chapter also focuses on assessing the form and structure of Bulawayo in terms of general morphology, connectivity and liveability. Informal sector activities (as land use activities); urban agriculture practices; use and management of open spaces and recreational parks; tourism development. These various land uses will be assessed and evaluated as they presently exist. Importantly also, the chapter examines the implications of intensification of land uses and concludes by presenting a summary of all identified issues and challenges facing the Planning Area with regards to land use activities and practices. The formulation and generation of revised land use proposals will be based on emerging land use issues, challenges and present realities.

Chapter 5 – This chapter reviews population growth trends, structure, composition, distribution and densities in the Planning Area and takes cognizance of changes in population dynamics since the 2000 plan was prepared and the implications on developments in the Planning Area.

Chapter 6 - This chapter also presents an existing economic profile in terms of economic indicators – employment, unemployment and labour force amongst others. It further examines economic indices such as growth patterns, poverty levels and poverty alleviation programmes which are in place. The current economic challenges facing Bulawayo are also presented. An economic viability assessment of the Planning Area will also be presented in this chapter by identifying Bulawayo's areas of comparative advantages which may be harnessed to make Bulawayo competitive nationally and also induce economic growth. Areas of tourism development and the informal sector economy will be closely examined so that issues and challenges from an economic point of view are highlighted.

Chapter 7 – This chapter deals with housing, begins by presenting the National Housing Policy and the institutional framework for housing in the country so as to put the issues of housing into perspective. The chapter examines and analyses the available housing stock, housing conditions and household characteristics in Bulawayo. Importantly also, the chapter examines the housing stock. The quality and standards of residential neighbourhoods in Bulawayo is also dealt with in this chapter. From an analysis of all the variables in the housing sector as they presently exist in Bulawayo, key housing issues and challenges facing the city will be clearly highlighted in the chapter.

Chapter 8 – This chapter deals with various educational facilities in the city. It begins by presenting the National Educational Policy and the institutional framework for education in the country so as to put the issues of education into perspective. The chapter examines and analyses the available educational facilities, their adequacy with regards to types, numbers and spatial distribution within the Planning Area. From an analysis of all the variables in the educational sector as they presently exist in Bulawayo, key issues and challenges relating to educational facilities in the city will be clearly highlighted in the chapter.

Chapter 9 – This chapter focuses on the health sector in city and begins by outlining the national health policy and the institutional framework for health delivery in the country. It goes on to examine primary health care services and analyses the available health facilities in the Planning Area in terms of their types, numbers, conditions and spatial distribution bearing in mind the population being served. This chapter presents an overview of the health status in Bulawayo as well as examines the question of environmental health. It also deals with environmental health. In the course of all these analyses, key health issues that emerge are highlighted.

Chapter 10 – This chapter deals with existing social and community facilities. It examines the levels, types and spatial distribution of social and community facilities in the city with a view of determining their adequacies and the population served. It further highlights the issues and challenges identified.

Chapter 11 – This is an important chapter as it deals with the extent and adequacy of infrastructural services in the Bulawayo. It assesses the sources of water supply and the degree to which demand is met; examines the sanitation situation; assesses the road network and conditions of roads by analyzing their hierarchies, connectivity and functionality; assesses traffic flows and transportation modes as well as issues of parking and transport terminals in the city; examines the sources of energy and extent of electricity supply, reticulation and also levels of communication infrastructure. All these will be undertaken with a view of determining infrastructure capacities as well as identifying issues and challenges facing infrastructure developments within the Planning Area.

Chapter 12 – This chapter seeks to examine and assess environmental concerns as an important component in the plan preparation process. The chapter constitutes an Environmental Audit of selected key and major physical infrastructural developments within the Planning Area aimed at identifying environmental elements which have been impacted by such developments. In this chapter it would be important to clearly indicate how such environmental elements are impacted by such developments. The chapter further assesses existing environmental practices in the planning area and the state of the environment in Bulawayo. Outcomes of the environmental audit in this chapter will constitute a base for mitigation measures that will be recommended at the development proposals stage.

1.13 THE PLAN PREPARATION PROCESS

1.13.1 The review and plan preparation process of Bulawayo Master Plan (2018 – 2033) constitutes of nine (9) project execution stages and 5 milestone reports as presented below.

Project Stage 1

- i. Mobilisation and start up, leading to the production of an Inception Report.

Project Stage 2

- i. Extensive and embracing consultation process with stakeholders that runs throughout the duration of the project;
- ii. Carry out a skills transfer and training of BCC planners attached to the consultancy firm during the duration of the project;
- iii. Literature review, sourcing and collection of all existing relevant schemes, plans, reports, policy documents, maps etc;

- iv. Desktop studies and reviews of all collected literature/reports and plans.

Project Stage 3

- i. Carrying out an indepth review and assessment of Bulawayo Master Plan (2000 - 2015), including an appraisal of the prevailing conditions upon which the plan's proposals were predicted;
- ii. Assessment of the plan's proposals and recommendations, as well as its performance and implementation;
- iii. Identification of implementation constraints and also the identification of emerging planning issues and challenges.

Project Stage 4

- i. Field Surveys and data collection on all sectoral aspects as they presently exist in Bulawayo;
- ii. Situational, spatial and resource analyses relating to all collected data from field surveys and desktop studies;
- iii. Demographic and Economic Analysis;
- iv. Identification of land use issues, emerging planning challenges, growth management issues and development opportunities;
- v. Carrying out of an Environmental Audit of key and major existing developments and determine the state of the environment;
- vi. Mapping of all information obtained from the various surveys and analyses in a remote sensed and GIS generated manner;
- vii. Projections and Forecasts of future requirements

The completion of tasks in projects stages 2 to 4 will result in the production and submission of the Report of Survey.

Project Stage 5

- i. Generation and formulation of development goals and vision for Bulawayo that will be reflective of the time frame of the plan;

- ii. Translation of the results of the spatial, situational, land use and resource analysis into frameworks that identify possible options, proposals, guidelines, strategies, policies and programmes which may be adopted in an effort to address the identified planning issues and challenges;
- iii. Generation of alternative Spatial Development Framework and Growth Management options;
- iv. Generation of options and strategies to address the identified planning challenges;
- v. An evaluation of the spatial Development Framework and growth management options and strategies;
- vi. An evaluation of all possible physical development options and proposals, guidelines, policies, strategies and programmes to come up with those preferred based on appropriate evaluation criteria.

Project Stage 6

- i. Prepare a spatial Development Framework and growth management strategy;
- ii. Generate sectoral proposals, recommend development guidelines, policies and programs;
- iii. Integration of all the preferred options, strategies and proposals into a Draft Master Plan;
- iv. Prepare a SEIA of Development Proposals;
- v. Map all the Development Proposals

The completion of tasks in project stages 5 and 6 will result in the production of Draft Master Plan.

Project Stage 7

- i. Address all comments from consultations and public scrutiny on the Draft Master Plan.
- ii. Produce a Draft Final Master Plan and present to Physical Planning.
- iii. Present the Draft Final Master Plan to the Minister.

Project Stage 8

Incorporate all the comments from the Minster and produce a Final Master Plan Document.

Project Stage 9: Project Completion Report

This report will briefly highlight the issues encountered during the preparation of the Master Plan including challenges and lessons learnt including recommendations for embarking on this project in future.

CHAPTER 2

2.0 GEOGRAPHIC AND CONTEXTUAL SETTING

2.1 GEOGRAPHIC LOCATION, SIZE AND BOUNDARIES

- 2.1.1 In terms of location, Bulawayo is a separate provincial area from Matabeleland – it is a Metropolitan Province. Bulawayo Metropolitan is located in the south western region. The region covers Bulawayo Metropolitan, Matabeleland North, Matabeleland South, Midlands and Masvingo. Map 3 shows the location of Bulawayo within its regional setting.
- 2.1.2 In geographical terms Bulawayo lies on latitude 29° 9" south of the equator and longitude 28° 58" East of the Greenwich Meridian. In terms of Spatial Size, Bulawayo's area of coverage is 439 000 hectares (439km²). Bulawayo is the largest settlement in the south western region. According to the 2002 census of population and housing the city had a population size of 650 000 and in 2012 it was 655 675. The city's population represents 45.6% of Matabeleland North & South's population and 21.4% of the south western region's population of 3 047 851. It is worthy to note that Bulawayo ranks as the 2nd largest city as well as 2nd largest in terms of population size (2012 census). Table 2 below shows how Bulawayo compares with other urban settlements in the country in 2002 and 2012.

Table 2: Demographic Characteristics of the Urban settlements in Zimbabwe (2002 – 2012)

Settlement	Population		Annual Growth (%) 2002 - 2012
	2002	2012	
Harare	1 435 784	1 468 767	2.3
Bulawayo	676 650	655 675	-3.0
Chitungwiza	323 260	354 472	9.7
Mutare Urban	170 466	188 243	10.4
Epworth	114 067	161 840	41.8
Gweru Urban	140 806	158 233	12.4
Kwekwe Urban	93 608	100 455	7.3
Kadoma Urban	76 351	92 469	21.1
Masvingo Urban	36 408	88 554	143.2
Chegutu Urban	43 424	49 832	14.8
Marondera Urban	51 847	62 120	19.8
Ruwa	23 681	56 333	137.9
Zvishavane Urban	35 128	45 325	29.0
Bindura Urban	98 018	44 033	-55.1

Beitbridge Urban	N/A	42 218	N/A
Hwange Urban	39 543	37 602	-4.9
Redcliff	32 453	35 924	10.6
Victoria Falls	31 519	33 710	6.9
Rusape Urban	N/A	30 718	N/A
Chiredzi Town	25 849	30 594	18.4
Kariba Urban	23 820	26 742	12.3
Chipinge Urban	N/A	25 675	N/A
Gokwe Urban	N/A	24 136	N/A
Shurugwi Urban	16 863	22 456	33.2
Gwanda Urban	13 363	20 420	52.8
Plumtree	N/A	11 660	N/A
Lupane Urban	N/A	6 171	N/A
Total	3 502 908	3 874 377	

Source: Zimstats

***Note:** As at 2002 the settlements which are indicated as N/A had not been accorded town status and hence the populations were counted as part of the rural population in the respective District Councils/Provinces.*

2.2 THE PLANNING AREA IN REGIONAL AND NATIONAL CONTEXTS

2.2.1 INTRODUCTION

2.2.1.1 In examining, Bulawayo in its regional context, its place and role in the south western region and its immediate environments where Bulawayo's boundaries are focused. The south western regions under which Bulawayo falls is endowed with mineral resources with gold, coal, platinum being amongst the most dominant minerals. In addition, the southwestern region has good surface water resources as represented the river systems. With all these resources and with good infrastructure the region has the potential to grow. This is not surprising given the fact that the favourable conditions and resources available are bound to serve as pull factors for the attraction of population. With a population of 653 337 and representing 5% of the total national population, what this means is that nearly half of the country's population reside in the south western region under which Bulawayo lies. The locational factor of Bulawayo within a region endowed with substantial amount of natural resources, good climatic conditions, good levels of infrastructure services and established markets has largely contributed to the growth and development of Bulawayo. The city can be classified as the regional capital of southern Zimbabwe.

2.3 NATIONAL CONTEXT

- 2.3.1 Bulawayo is strategically located and form the axis of the road and rail network links to the rest of the country and the southern African region providing important railway linkages to South Africa, Botswana and Zambia. The city can be classified as junction settlement to Victoria Falls and Zambia to the West, Plumtree and Botswana to the South, East to Beitbridge and South Africa, North to Harare. As a result of the locational advantage in a national context, the city reaps the benefits of transit trade, tourism and other spin-off economic benefits. Map 4 show Bulawayo in its national setting.
- 2.3.2 Bulawayo is some distance in relation to some major and other centres in the country. Bulawayo is some road distance of 438 km to Harare, the capital city of Zimbabwe, 438 km to the major tourist attraction of Victoria Falls, 320 km to Beitbridge and 100 km to Plumtree. Distances to some other centres from Bulawayo are as follows; 655 km to Kariba; 412 km to Binga and 282.5 km to Masvingo. The long distances to these centres has financial and social implications on the people who originate from Bulawayo.
- 2.3.3 In terms of population size in a national context, Bulawayo's population of 653 337. Which represents 5 % of the total national population of 13 061 239 (2012 population census). Compared to the 2002 census figures, there was a decrease in Bulawayo's population unlike in some cities in the country. The population then was 676 650 With regards to spatial size in the national context, Bulawayo with a land coverage of 439 000 hectares (439km²) hectares represents just 0,1% of the country's total land area of 390 757 km².

2.4 REGIONAL AND NATIONAL FUNCTIONS, LINKAGES AND IMPACTS

- 2.4.1 Bulawayo benefits from resources in the south western region in the form of water supplies, energy for electricity, food products and other consumer goods, as a primary centre, catchment area and headquarters of Bulawayo Metropolitan Province. The province performs key administrative functions and provides services to surrounding areas within its area of jurisdiction and immediate regions in five districts namely Bulawayo Central, Imbizo, Khami, Mzilikazi and Reigate. The districts ensure delivery of administration and other services to settlements in the region while at the same time coordinating service delivery between Local Government and Central Government departments. In terms of the Urban Councils Act (Chapter 29:15) Bulawayo provides such services as primary health care, primary education, road maintenance, social and community development as well as environmental health in its area of jurisdiction.
- 2.4.2 In order to facilitate its role as an administration centre and primary centre, a number of Central Government Departments are located in Bulawayo to provide services to residents within the Bulawayo and the hinterland. These include departments such as Agriculture, District Administration, Police, Veterinary Services, Agritex, Zimbabwe

Power Corporation, ZETDC, Tel One maintain offices in Bulawayo. The Resident Minister and Provincial Administrators office for Bulawayo are located in Bulawayo. The Resident Minister and Provincial Administrator are the head of government representative in the Bulawayo Metropolitan under which the Planning area falls.

- 2.4.3 Bulawayo also serves as the major regional centre servicing smaller towns such as Victoria Falls, Hwange, Gweru, Zvishavane, Gwanda, Beitbridge and Plumtree in adjoining provinces namely; Matabeleland North, Midlands and Matabeleland South.

2.5 ECONOMIC LINKAGES

- 2.5.1 In terms of economic linkages and impacts within the region, nationally and to some extent internationally, Bulawayo is well located and endowed with resources that are tapped by other centres within and outside its region. There are several industrial establishments and a power station in the planning area. Furthermore, the presence of such facilities has in turn played a significant role in boosting employment opportunities in the planning area historically although the city's dominance as the major economic and industrial hub has diminished in recent years. In addition, Bulawayo has strong economic linkages with other areas outside its region. It receives most of its goods for commercial trade from within the city though others are received from Harare in view of a limited number of operational industrial and manufacturing concerns in Bulawayo. This situation is a matter of great concern because Bulawayo has always been the industrial hub of Zimbabwe and it has all the potential to regain its status as the major industrial hub if its comparative and competitive advantages are exploited to the fullest as the city has adequate electricity supply, good national road linkages, availability of water supply and the railway lines passing through and linking Bulawayo to other parts of the country and broader trans-boundary region. There are some designated industrial sites in the city but what is lacking is adequate servicing of these industrial stands for the attraction of major industrial and manufacturing concerns. These are issues that should be addressed in the plan.
- 2.5.2 Bulawayo to a very large extent depends on the hinterland surrounding farms in Nyamandlovu for food products in the form of vegetables, maize meal and other cereals. However. It should be noted however, that some residents in the city especially those who own large plots also produce a lot of food products to supply the city. The situation should be seen as a pointer to the need for developing strategies for sustainable agricultural practices in the planning area. Some people who grew up in Bulawayo but work outside the city in places such as Harare, Mutare, Masvingo, Victoria falls etc as well as those who are in the diaspora still maintain strong economic and social relations with the city. As a result, they invest some of their disposable incomes back into the local economy in the construction industry and household support.

- 2.5.3 As a primary centre and a catchment area for the hinterland in the region, Bulawayo serves as a major commercial and shopping hub in the Planning Area. Regular monthly shopping trips are made to Bulawayo by the retail customer population from the hinterland for the purchase of basic goods ranging from groceries, clothes and household goods. This results in the injection of cash into the local economy of Bulawayo. However an issue which should be noted is that while Bulawayo has the benefits of being the secondary capital city, its strategically located and is also a primary centre with a higher level of infrastructure and service provision there are other competing urban centres within the region which are major catchment centres. These include Plumtree, Gwanda, Hwange, Victoria Falls, Beitbridge, Masvingo and Gweru. The challenge is therefore how to identify areas of Bulawayo's comparative advantages and exploit them to the fullest so that it remain competitive and continues to attract developments and investments as well as create additional employment opportunities.

2.6 ADMINISTRATIVE AND SOCIAL LINKAGES

- 2.6.1 As the second largest urban area in Zimbabwe, there are several government ministries found in the city. The headquarters of the National Railways of Zimbabwe, other government ministries, state house and some Non Governmental Organisations are located in Bulawayo.
- 2.6.2 Bulawayo falls within the 3rd tier of government (Local Government) responsible for running the city. It is constituted of elected councillors headed by the Mayor. However, the chief administrative officer of the Local Authority is the City Clerk. The Ministry of Local Government, Public Works and National Housing (MLGPW & NH) is the supervisory ministry in charge of the city and other Local Governments in the country.
- 2.6.3 Bulawayo is an educational and cultural hub of the country and it used to be an industrial city. It is a final destination for most migrants from the south western part of the country and who still maintain contacts with their roots.

2.7 TRANSPORT AND COMMUNICATION LINKAGES

- 2.7.1 Bulawayo is a focal point and terminus for the various types of transportation systems in Zimbabwe. These include, air, road and rail transportation systems. Map 5 shows the air, road and rail transportation network between Bulawayo and major settlements in the country and the SADC region.

2.8 ROAD LINKAGES

- 2.8.1 The good road linkages to all the major centres in the region and other parts of the country have been stated earlier on in the document. To emphasize the point, these linkages are represented by the main Southeast – Northwest road linking Bulawayo to

Beitbridge and Victoria Falls as well as South Africa, Namibia and Zambia. To the west it is linked with a good tarred road and has a direct link to Botswana through Plumtree. To the Northeast it has a directly link with other urban centres such as Gweru, Kwekwe, Chegutu as well as the capital city of Harare. To the east the city has a direct link with Zvishavane, Masvingo and Mutare through to Mozambique. The good road network and linkages have improved intercity connectivity resulting in good public transportation between Bulawayo and other settlements in the country including transboundary linkages.

- 2.8.2 This means that Bulawayo is in a good position to easily receive goods and services from other parts of the country and beyond. The city has a high potential for investment and tourism development as a result of easy movement of people into its area of influence. However, there still remains a challenge with regards to some of the poor road links between Bulawayo and some of settlements in the region as a result of poor road conditions due to wear and tear and lack of maintenance e.g. Nkayi road.

2.9 RAILWAY LINKAGES

- 2.9.1 Viewed as part of the proposed Cape to Cairo railway line, there has always been strong linkages between the National Railways of Zimbabwe (NRZ) and Botswana and South Africa. Today NRZ forms a crucial link in the railway systems of the Southern African region. Equally to the advantage of Bulawayo is that the headquarters of the National railways of Zimbabwe (NRZ) and Bulawayo - Beitbridge Railway (BBR) line are located in the city. The good rail links with all the urban centres in the country as well as neighbouring countries such as South Africa, Botswana and Zambia give the city an added advantage in terms of rail transport. The NRZ provides an unbroken railway line to Zambia, the Democratic Republic of Congo, Angola, Mozambique, Tanzania and Malawi. The rail line currently handles bulk freight particularly petroleum and other products from these neighbouring countries. The railway line is also well linked to several industrial areas in the city.

2.10 AIR LINKAGES

- 2.10.1 Air transport has become important in the facilitation of socio-economic development especially with increased globalization over the last decade and which has boosted the local tourism industry. Joshua Mqabuko Nkomo International airport located about 21km from the city centre handles regional flights and direct passenger services are available to South Africa. This route is plied by Air Zimbabwe and South African Airways through Air link. On the domestic scene Fast Jet and Air Zimbabwe are in operation.

2.11 TELECOMMUNICATION AND POSTAL LINKAGES

- 2.11.1 With regards to telecommunication, the Planning Area is well linked to all areas in the city, region, nationally and internationally by a good national telecommunication network system operated by Tel One, a government parastatal. Automatic telephone exchanges have been installed and direct dialing services to all parts of the country and abroad are available. Public sector institutions, businesses and commercial enterprises as well as the residential areas have good quality telecommunication services. In addition, due to technological development internet connectivity has greatly improved in the city which has resulted in the availability of full complement of electronic information technology in the city. To date most public institutions, large medium, small scale as well as a growing number of residences are connected to the system. Mobile telephone networks provided by Buddie, Easy Call and Telecel have improved communication as these have become affordable to a majority of the residents in the city and country. The improved telecommunication network situation is a good development for Bulawayo in so far as meeting the needs of investors wishing to invest in the city. This is more so given the fact that an effective and reliable means of communication is very important for business.
- 2.11.2 Bulawayo enjoys linkages with the international fibre optic cable network. This is a fiber optic cable which connects one country to the rest of the globe for voice and data transmission. It transmits most of the world's telecommunications and internet traffic. These cables carry telecommunication signals across the ocean; carrying telephone, internet, and private data traffic. Tapping into this network will radically change communications in the plan area.

2.12 THE MEDIA

- 2.12.1 Local Radio as well as local television and foreign broadcasting networks play an important role in keeping Bulawayo residents well informed and entertained. The majority of households in the city own or have access to a television or radio set. There are 8 radio stations in the country namely, Khulumani FM, Skies FM, S FM, Star FM, Zimbabwe FM, National FM, Power FM and Radio Two. However, only three radio stations namely Zimbabwe FM (ZIM FM), Khulumanai FM and Skyz FM are located operating from the city. ZIM FM is owned by government and broadcasts throughout the country while Skyz FM and Khulumani FM are privately owned and are limited to Bulawayo and the surrounding area approximately within a 40km radius. On the other hand there is only one public owned television station – ZTV.
- 2.12.2 The print medium is dominated by the private sector. Government publishes The Chronicle, Sunday News, as well as the Herald and Sunday Mail. However, the Chronicle and Sunday News are the newspapers which are mostly in circulation in the South Western Region and Bulawayo in particular. However, other well-established privately

owned newspapers such as the Daily News, News Day, Financial Gazette and the Zimbabwean Independent are also in circulation in Bulawayo. These are all commercial newspapers which compete with South African newspapers especially the Sunday Times which is readily available. The country has not yet implemented digital migration which is a process of moving from analogue to digital broadcasting with clearer sound and superior picture.

CHAPTER THREE

THE PHYSICAL ENVIRONMENT AND NATURAL RESOURCES

3.1 INTRODUCTION

- 3.1 The aim of this chapter is to analyse the physical environment in terms of the natural context i.e. physiology and land forms; geology; surface hydrology; soils; climate; vegetation; wildlife and scenic features. In addition the man-made environment i.e. settlement pattern and spatial layouts are also analysed.

3.2 NATURAL ENVIRONMENT

- 3.2.1 The Physical environment is generally described in terms of features that are a result of the natural processes influenced mainly by climate and time. The description of the physical environment in this chapter is limited to the planning area. A 10km boundary from the existing boundary with Bulawayo at the centre was demarcated as study area. It is this area which is described under the headings below.
- 3.2.2 Within the study area, there is the built up area of Bulawayo which is the main centre and is characterised by buildings for residential, commercial, industrial, recreational and other civic purposes. The main land uses abutting Bulawayo are residential, agricultural namely farms, small scale agricultural plots as well as cattle ranching. The various agricultural activities in the urban periphery are being undertaken on a subsistence as well as commercial level and the produce is being sold in Bulawayo.

3.3 GEOLOGY AND SOILS

- 3.3.1 Geology and soils are important in development as they are indicators of possible directions of expansion. The rocks in the Bulawayo area are of the Bulawayan Group sequence of the Archaean age (Garson, 1995). Topographically the area is of the Post-African erosion surface of Miocene age. In broad terms, the geology of Bulawayo is divided into two main formations underlain by a rather complex crystalline geology, mostly based on a granite and greenstone belt. Towards the east and south there are potential gold deposits and some mining claims already exist. Towards the west the granite rock is dominant and is close to the surface which may result in additional costs during development. Map 5 shows the general soil characteristics in the plan area.
- 3.3.2 Soils in Bulawayo fall into two broad categories, the regosal and siallitic group. These type of soils are found in low rainfall areas and they have a high base status and clay content. The soils have low water holding capacity and tend to limit root depth. Throughout the plan area there are some pockets of clay deposits which may cause construction challenges due to expansion and contraction. There is need for some soil tests to be undertaken in the new development areas.

3.4 TOPOGRAPHY AND HYDROLOGY

- 3.4.1 Bulawayo lies on a plain in the south – west of Zimbabwe on the western extreme of the central watershed of the country which divides the Shashe-Limpopo drainage system from the Zambezi drainage system. The city slopes gently down to the north and north west whereas to the south the terrain is more undulating merging into Matobo Hills. The study area is generally flat and featureless but becomes more rugged to the south and south – east of the study area, where there are a number of granite kopjes. To the north east there are a series of low flat-topped hills. Bulawayo is underlain by the Balawayan formation that comprises the Upper Greenstone Belt and the surrounding granitic terrain, both of Achaean age, which is cut by Proterozoic plugs and dykes of gabbro and dolerites (Garson & Mutsvangwa, 1995; Rusinga & Taigbenu, 2004). Its topography is closely controlled by the geology and to some extent by the horizontal tectonic processes. The topography is characterised by abrupt slopes resulting in napes of metabasalt rocks being transported over older greenstone. Minor, but fairly persistent, thin-branded iron-formation horizons in parts of northern Ilanda and eastern Greenhill are interflow exhalites formed during interruptions in volcanic activity. The hilly areas have excellent exposures of both volcanic types, and also of associated sills and minor intrusions of very resistant metadolerite and metagabbro (Garson & Mutsvangwa, 1995). Map 6 shows the drainage within the planning area.
- 3.4.2 At an altitude of 1 350m above sea level and mostly cooled by a south – eastern airflow, Bulawayo enjoys a subtropical climate. The study area is crossed by a number of rivers and watercourses which are seasonal. The water courses are important sources for open space and vegetation and in some cases for horticulture. However, the water courses can also become a hazard during the rainy season especially when storms create severe and dangerous water courses running through residential areas.
- 3.4.3 There also exists some boreholes throughout the city. In the high density areas, the boreholes are a source of water for the residents while in the low density areas, boreholes have been sunk by individuals for use in the gardens or for agricultural purposes. This points to the importance of groundwater resources in the plan area.

3.5 CLIMATE

- 3.5.1 The city is characterised by variations in both rainfall and temperature with a semi – arid climatic condition. The city's average annual rainfall is 594 mm though it varies considerably from year to year. Bulawayo experiences three broad seasons, a dry cool winter season from May to August, a hot dry period in early summer from late August to early November and warm wet period from early November to April. However, throughout the year, there are occasional days of cool cloudy weather with drizzle at times. The rainfall is not very reliable which makes the planning area vulnerable to droughts as rainfall tends to vary sharply from one year to another. Much of the rainfall is due to showers and thunderstorms activity, hail is infrequent.

3.6 TEMPERATURE

- 3.6.1 Temperatures are generally warm in summer with periods of hot weather of 30 Degrees Celsius or even more when the skies are clear. The mean annual temperature is 19.16 °C. Like much of southern and eastern Zimbabwe, Bulawayo is cooled by a prevailing south easterly airflow. The hottest month is October, which is usually the peak of the dry season but the temperatures fall as the rainy season becomes established. The average maximum temperature ranges from 21 °C in July to 30 °C in October. During the rainy season, daytime maxima are around 26 °C, nights are always cool, ranging from 8 °C in July to 16 °C in January. During the winter months the weather is mild by day and a short period cold night with occasional frosts. Apart from such days a generous measure of sunshine is available each day.

3.7 SOLAR RADIATION

- 3.7.1 There is a fair amount of sunshine throughout the year (7 – 9 hours daily) with the highest sunshine occurring during the months of May to October. On the other hand, the least amount of sunshine occurs during the months of November to March. Bulawayo is ideal for the promotion of green energy sources.

3.8 RELATIVE HUMIDITY

- 3.8.1 Relative humidity is moderate in most months and there are few days that are very warm and humid. It is highest during the early hours of the morning and lowest in the afternoon. Low relative humidity of under 10% is often experienced on hot afternoons.

3.9 WIND

- 3.9.1 The prevailing wind direction in the city is from the south east as the wind rose recorded in Bulawayo. Throughout the year, the winds from the South East quadrant are predominant and the speeds are usually moderate at about 10 knots, while there are some days when a speed of 20 - 25 knots is reached. Despite the calm conditions the winds can become dusty towards the end of winter. Strong winds can also be experienced during rainy seasons, particularly at the beginning and at the end of the rainy seasons. These winds are associated with thunderstorms resulting in damage to property and causing wind erosion. Wind direction is important in built-environment design processes such as siting of polluting industries.

3.10 VEGETATION

- 3.10.1 The ecological zone within which Bulawayo falls is covered by a generation of secondary vegetation that is closely related to the underlying rock type and environmental changes that occurred. The planning area falls within an ecological zone which is characterised

by vegetation which is mainly shrub and tree savanna with favourable grazing resources. There is some variation in vegetation type based on the main soil types. On the granitic sandy soils to the west of the study area, Mopane woodland is the main vegetation type whilst acacia woodland dominates the brown and red clays to the east. Tree species that produce fruits and those with medicinal properties like *Z. mucronata*, *S. birea* and *A. garckeana* are also found in the some parts of the city. The river valleys and water courses naturally maintain thicker vegetation covers due to the availability of water most of the time.

3.11 NATURAL RESOURCES BASE AND INVENTORY

3.11.1 This section focuses on undertaking an inventory, analyzing and examining the natural resource base of the Planning Area with a view to determining the utilization and conservation practices; impacts of current utilization practices; what regulatory and management instruments and programmes are in place for the sustainable utilization of these resources. Bulawayo Planning Area is evidently endowed with natural resources and these include groundwater resources, mineral resources, forest resources and wildlife resources. The identified natural resources in the Planning Area are presented and analysed as outlined hereunder.

3.12 GROUNDWATER RESOURCES

3.12.1 The major part of the city is underlain by the Matsheumhlope aquifer and the rest underlain by a low yielding granitic aquifer. These two aquifer systems form the Bulawayo urban aquifer system (Hlatywayo et al., 2013). Matsheumhlope Wellfield is the main underground water resource aquifer serving the City. It is in the greenstone formation which has two variations, namely the 'Avalon' formation and the 'Umganin' formation. The Matshemhlophe wellfield is a marginally good acquifer but it cannot support large drawdowns which could make it vulnerable to contamination from urban sewer and the landfill. Rusinga and Taigbenu (2004) reported that the Matsheumhlope wellfield is demarcated into three aquifers according to the abstraction rate per day (namely: *the high yielding aquifer* (yield of more than 120 m per day), *medium yielding aquifer* (20-120 m per day) and the *low yielding aquifer* (less than 20 m per day). The granite formation is low water yielding while the greenstone is classified as possessing a reasonable groundwater development potential (Martinelli and Hubert, 1985).

3.12.2 Average hydraulic conductivity is moderate (0.55 m/d) and sustainable yields are in the range of 100 to 250 m³ /d (Rusinga, 2002). The aquifer under consideration is mainly unconfined and relatively shallow with an average saturated thickness of 40 m. Depth to the water table varies spatially throughout the aquifer. The general direction of flow is north-easterly with average hydraulic gradient of 1:250 and average flow velocity of 0.4 m/d. Borehole failure within the area is attributed to the occurrence of shallow depth of the bedrock underlying some parts of the acquifer. The pattern of groundwater flow

generally follows the surface topography with seasonal variations in water levels characterised by rising water levels during the wet months from November to March and declining water levels during the dry months.

- 3.12.3 Groundwater quality is good but there is a potential risk to underground pollution due to the septic tanks, industrial effluent and the landfill. An aquifer vulnerability map can be used for planning purposes to protect the groundwater resource.

3.13 MINERAL RESOURCES

- 3.13.1 The main resource in the Planning Area is Gold and is being mined by Old Nick. The Planning Area is endowed with this resource such that the mineral constitutes more than 80 % of the rock volume in the area.

- 3.13.2 There are several mining claims and special grants within the Municipal boundary and the study area. Some of the claims are in Cement Siding, Umganini, Norwood, Umvutcha, Richmond, Upper Rangemore, Aisley Farm, Umvutcha, Windermere, Three Fountains and Heany Junction. There are some mining activities within the Municipal boundary being undertaken illegally by small scale miners (artisanal miners). Mining claims within the Municipal boundary cannot be mined without the consent of key stakeholders such as the Local Authority.

- 3.13.3 There are deposits of sand and gravel in the bed of the major rivers as well as alluvial mud and silt are used for brick making. Notable in this regard is Macdonald Brick Manufacturing which is the largest brick manufacturing company in the region.

- 3.13.4 From the foregoing it is evident that the Study Area is endowed with mineral resources which have the potential of transforming the local economy of Bulawayo in all aspects.

3.14 MINERAL EXPLOITATION

- 3.14.1 Gold is the main mineral being exploited and mined in the planning area. The main methods being used are open cast methods. The major challenge with the open cast method are the mine dumps which remain exposed to the surface leaving the area not available for any other uses.

- 3.14.2 There are mining claims on the outskirts of the built environment and the city receives applications for prospecting permits within the city limits including farms which are owned by the municipality. Some mining claims are located within dam servitudes such as those of Ncema and Inyankuni dam. There are implications of mining activities on the city's river system.

- 3.14.3 Construction aggregates in the form of gravel stones, river and pit sand are being mined from within the city at Davies Granite, from the river banks and in the bush. These

practices especially river and pit sand have serious environmental implications in terms of destroying the river line and general landscape as well as erosion. There are also a number of unrehabilitated burrow pits which not only deface the landscape but also become a major constraint to physical developments. Uncontrolled extraction of sand has had adverse environmental impacts as manifested through land degradation, loss of vegetation and soil erosion.

3.15 AREAS OF SCENIC BEAUTY, CULTURAL AND HISTORICAL SIGNIFICANCE

- 3.15.1 The Planning Area and areas around it are endowed with a number of interesting areas/sites of scenic beauty, cultural and historical/archaeological significance. Most of the sites have opportunities for tourism and recreational development as well as the preservation of the cultural heritage of the city. However, some of the sites of scenic beauty, historical or cultural importance are not being maintained and preserved, hence they have become derelict and in bad condition.
- 3.15.2 Some of the important sites and areas in and around Bulawayo have been identified, discussed and presented as follows:

3.16 INXWALA FESTIVAL SITE

- 3.16.1 The Inxwala Festival site is located between Masotsha Avenue and Selous Street in North End and over the years the local authority has been hiring it out to the Lunar Park. Historically, the site was set aside by the council after the realisation of its importance in terms of cultural heritage. Inxwala is a sacrificial ceremony of giving the first fruits in a harvest to the ancestors, who are believed to be responsible for the abundance of food. Traditionally, it marked a time of prosperity in the good harvests experienced after the seasonal agricultural period. The activity also brought the nation together, unifying people at a time of merry-making and quashing fears of famine. However, at the time of the study some individuals had turned the Inxwala festival site into churches as they conducted illegal open air services.

3.17 BULAWAYO AND THE INDABA TREE

- 3.17.1 When King Lobengula succeeded Mzilikazi, after a succession struggle and established his first royal kraal and associated settlement just south of present day Bulawayo near Hope Fountain. It is then that the name Bulawayo was given to the settlement and became an important component of Zimbabwean history. After 10 years at what has now come to be called "Old Bulawayo", Lobengula moved the capital in 1881 to the site which is partly occupied by the State House in Bulawayo. King Lobengula continued to direct the affairs of the Ndebele State from Bulawayo. The site for the indaba tree is an important historical site which used to be in the goat kraal under which the king held his court and received state visitors.

3.18 BUILDINGS OF ARCHITECTURAL & HISTORIC INTEREST

3.18.1 Bulawayo has a number of buildings which are of Architectural or Historic interest. Below is a list of the buildings in the city.

- **St. Mary's Cathedral Basilica** (Cnr 9th Avenue and Lobengula Street)
- **Wesleyan Methodist Church** (Cnr J. M. Nkomo and 11th Avenue)
- **Anglican Church** (6th Avenue and George Silundika street)
- **Jewish Synagogue** (Cnr Jason Moyo Street and 3rd Avenue)
- **St Georges Building** (J.M Nkomo and 10th Avenue)
- **Grand Hotel / The Grand Hotel Extension** (J.M Nkomo and 9th Avenue)
- **Drill Hall** (Cnr Basch Street and 10th Avenue)
- **Fairway Hotel** (102 George Silundika Avenue)
- **Preece and Mackenzie Bookshop** (80A Jason Moyo street)
- **A. Radowsky Building** (Jason Moyo Street)
- **Exchange Building** (Cnr J.M Nkomo & L. Takawira Avenue)
- **Post Office Building/Exchange Bar** (J.M Nkomo Street)
- **Post Office Gardens** (J.M Nkomo street)
- **Douslin House/Willoughby's Building** (Cnr Leopold Takawira Avenue and J.M Nkomo Street)
- **Goldfields Building** (J.M Nkomo Street between L. Takawira & 6th Avenue)
- **Barclays Bank** (Cnr J.M Nkomo and 8th Avenue)
- **Taramel House (Imperial Building)** J.M. Nkomo Street between L. Takawira & 6th Avenue
- **Rhodes Building** (Along 9th Avenue)
- **Beverly Court** (101 Herbert Chitepo Street)
- **Railway Offices** (Top end of Railway Avenue)
- **Old Memorial Hospital** (Cnr Herbert Chitepo Street and 10th Avenue)

3.19 FOREST RESOURCES

3.19.1 Forest resources in the Planning Area consist of woody tree species, medicinal and some veld products. The Forestry Act CAP 19:05 and EMA Act CAP 20:27 are the principal Acts in the regulation and management of forest resources. The dominant tree species in the city constitutes of the following though exotic trees are the dominant tree species:

- i) Colophospermum mopane
- ii) Acacia,
- iii) Ziziphus mucronata
- iv) Schlerecyrea birea

- v) Pine
- vi) Jacaranda
- vii) Eucalyptus
- viii) Azanza garkeana
- ix) Z. mucronata
- x) S. birea and
- xi) A. garckeana
- x) Jacket Plum, Indaba tree; Ndebele: Isagogwane

3.20 WILDLIFE

3.20.1 The urban fauna in the city is related to the vegetation, open spaces and areas with virgin landscape. In most urban areas there is very little wildlife except smaller mammals, reptiles and birds. In the low density suburbs (residential/agricultural areas) in the southern and eastern areas there is a greater variety of smaller mammals and reptiles and occasional small antelope and an increased number of birds. In the peri-urban areas there is a large number of all forms of wildlife within the farms. This is also complemented by game parks and game sanctuaries which are being run by the Department of National parks and Wildlife management and the City of Bulawayo such as Tshabalala, Mguza and Mazwi where wildlife species can be found. In addition, other areas such as Chipangali Wildlife Orphanage is located within the Study area. The parks, sanctuaries and Chipangali are mainly for educational and conservation purposes as they host a number of wildlife species. However, due to urban expansion, the number of wildlife in these game parks and sanctuaries has reduced due to poaching and migration away from the urban periphery.

3.21 NATURAL RESOURCE UTILISATION AND CONSERVATION PRACTICES

- 3.21.1 The existing natural resources in the Planning Area are being put to use for different purposes including the provision of income for households. In this regard, the major consideration is whether these resources are being used in a sustainable manner for the benefit of future generations. For example, with regards to forest resources which comprise of woody tree species, their utilization is mainly for fuel wood for cooking by a majority of the households. The demand for fuel wood has even become higher due to an increasing number of households who cannot afford electricity costs and have resorted to wood for cooking. Some households cut trees for sale as sources of income. Such practices lead to unsustainable utilization of this resource. Another problem which is related to the conservation of forest resources are high incidences of bush fires in the Planning Area.
- 3.21.2 Human activities and practices also put groundwater and surface water resources at the risk of pollution. The extensive use of pit latrines in some parts of the city, discharge of industrial effluent, discharge of treated effluent into the river systems and the land fill

are some of the potential sources of pollution. In addition to the above other sources of potential pollution include agricultural practices, fuel spillages and the power station.

3.22 REGULATORY AND MANAGEMENT PROGRAMMES FOR THE SUSTAINABLE UTILISATION OF NATURAL RESOURCES INCLUDING MINERAL EXPLOITATION

3.22.1 There are a number of statutory instruments in place used to regulate the utilization of natural resources to ensure sustainability. The conservation and sustainable utilization of mineral resources in the planning area and whole country is guided by the Mines and Mineral Act 21:05 which is being administered by the Ministry of Mines, Minerals and Energy Resources. The Department is responsible for regulating the extraction of mineral resources. The provisions of the Act is important for the operations of all mines in the sense that it empowers the Department of Mines to monitor all the mining activities to ensure sustainable extraction. Furthermore, the mines are obliged to put in place management programmes to preserve land as much as possible for the conservation of the natural environment.

With regards to forest resources, the regulatory instruments for the sustainable utilization include the Forestry Act. The Forestry Commission is responsible for the management and protection of forestry resources. Through its various regulations, it prohibits the exploitation of forestry resources without permits. The Commission organizes forestry and conservation clubs in schools as well as undertaking tree planting campaigns.

3.23 IMPACTS OF NATURAL RESOURCE ENDOWMENT AND UTILISATION IN THE PLANNING AREA

3.23.1 The natural resources which Bulawayo and the surrounding environments are endowed with have some social, economic and environmental impacts. Some of the impacts are positive while others are negative as highlighted below:

- i) Mineral Resources – The presence and exploitation of gold deposits in the planning area has presented opportunities for economic growth and diversification as well as the creation of employment opportunities for Bulawayo residents. Some businesses have been established in Bulawayo to supply the mining industry with material, spare parts and chemicals. However, there are some negative aspects relating to the environmental impacts as a result of mining activities.
- ii) The exploitation of trees and other woody species is gradually leading to the depletion of forest resources particularly to areas in close proximity to the settlement. This is mainly attributed to the rampant felling of trees since the majority of the households use this resource for cooking while others make a living out of selling fire wood. The environmental implications of such practices

relate to a loss of amenity, habitat for small animal species and the implications of such practices on the atmospheric conditions.

3.24 PHYSICAL CONSTRAINTS AND IMPACTS OF DEVELOPMENT ON THE PHYSICAL ENVIRONMENT

3.24.1 Some of the Physical constraints to development identified in the Planning Area include;

- i) The flood plain areas along the banks of rivers though they are a constraint to physical developments, they have ecological and environmental value;
- ii) Existing burrow pits limit the use of some areas for physical developments, save if they are properly rehabilitates;
- iii) Former dumpsites limit the use of some physical developments;
- iv) The railway line running through the city means that the railway reserve is precluded from developments.

3.24.2 With regards to developments on the physical environment, it is important to note that developments come with a price of the physical and indeed the natural environment. These are in the form of impacts resulting from developments such as infrastructure service provision, commercial and physical infrastructural developments. Within the Planning Area these have been realized in the form of:

- i) The increased use of concrete for surfacing of large area for example in shopping complex (car parks) has resulted in increased runoff which if not properly channeled may lead to problems of erosion. Such developments also lead to land surface impermeability and often ponding in the car parks.
- ii) Air and noise pollution from the activities of industrial developments such as Delta brewery, the power station, Macdonald bricks, PPC and other industrial establishments in the city. These have long term implications with regards to the health of the population.
- iii) Degradation of the physical environment as a result of extraction of gravel and pit sand for road construction which are never rehabilitated. In addition, indiscriminate dumping of construction rubble defaces the landscape, making such areas not available for development.

3.25 ENVIRONMENTAL, ECOLOGICAL AND CONSTRAINTS ZONING OF THE PLANNING AREA

3.25.1 An analysis and assessment of the physical environment of the planning area is important to overlay the physical, ecological and constraints which have been established in an effort to come up with an environmental zoning analysis of the Planning Area. The primary purpose of the exercise is to establish from the onset site

suitability analysis for future development and areas more likely suitable for settlement expansion bearing in mind limitations of environmental zones.

3.25.2 The following factors have been taken into account in establishing the environmental zones;

- i) Site Slope
- ii) Ground water Vulnerability
- iii) Land Suitability for agriculture (as defined by the MOA)
- iv) Groundwater protection zones (as defined by BCC & ZINWA)
- v) Flood Plains
- vi) Physical constraints to developments (line infrastructure servitudes, railway corridor and mobility corridors, airport etc)

3.25.3 Should there be need to extend the Municipal boundary at the development proposals stage, this type of environmental zoning and constraints analysis shall be extended to such areas.

CHAPTER 4

LAND, LAND USE AND RESERVATIONS

4.0 LAND AS A RESOURCE

4.1 INTRODUCTION

4.1 Land is a national resource that is a gift from God and constitutes the wealth of many nations. It is endowed with many natural resources such as minerals, flora/natural vegetation and fauna / wildlife. Land has economic and social values. As a commodity land is considered as one of the three factors of production.

4.1.1 In Bulawayo land is endowed with many types of minerals however of note is the presence of the precious mineral gold as shown by the operational Old Nick Mine which used to be one of the largest mines in the country many years ago, the defunct Mamba Mine next to Masiyephambili Junior School, numerous old gold diggings around the city as well as current small scale mining activities within the city's boundary.

4.1.2 Land as natural resource in Bulawayo which covers some 643 square kilometres including the northern areas that were incorporated through Statutory Instrument 212 of 1999 and most of it lies within a radius of 10 to 20 kilometres. Since expansion of the city is heavily dependent on the surrounding hinterland, it is considered prudent to examine the city's hinterland in terms of its land uses, potential for agriculture and suitability for urban development.

4.2 LAND OWNERSHIP

4.2.1 Land ownership is an important aspect in terms of the city's development as well as financial considerations as private land could be charged rates to provide the much needed revenue for the local authority. Although most of the land in the Master Plan Area is privately owned, the city council owns a considerable amount of land (developed or undeveloped) especially in the western areas of the CBD and most of this land has been developed for high density/low cost residential purposes. In the south eastern areas of the city for example 97% of properties are privately owned (Local Plan NO 14-South Eastern Areas) whilst few properties are owned by the government and public institutions such as schools and post offices have been developed on such sites. Government also owns a number of residential properties housing civil servants. Council on the other hand owns public open spaces, public recreational areas leased to clubs (e.g. Bulawayo Country Golf Club), road ways and road reservations that have been transferred to it.

- 4.2.2 Most of the land owned by council in the western areas has now been taken up by low cost housing development as the city continues to sprawl outwards in many directions. As a result of exhaustion of developable land within the city's boundaries particularly for housing and industrial purposes, there is urgent need for acquisition of more land in the immediate hinterland of the city. According to council records Bulawayo City Council properties are scattered all over the city and cover some **5 499.3355 hectares** of land. This land includes water and sewerage pump stations, water reservoirs, community halls, stadia, primary schools amongst others. Table 3 below shows municipal properties and their sizes.

Table 3: Municipal Properties, Land Areas and values

DESCRIPTION	Land size (ha)	Land value
Water and Sewerage Pumps	3 171.1521	\$805 895.87
Communal Halls	12.5019	\$180 531.00
Clinics and Hospitals	21.0214	\$388 800.00
Swimming Pools	4.6250	\$69 800.00
Primary Schools	172.7574	\$777 600.00
Community Administration Offices	13.5707	\$158 920.00
Pre Schools	5.2105	\$182 900.00
Parks and Camp Sites	2036.8640	\$483 528.00
Stadiums	26.8331	\$91 000.00
Fire Stations	4.7970	\$80 200.00
Residential Flats	2.9037	\$179 900.00
Depots and Stores	2.6639	\$42 000.00
Arts and Crafts	1.3581	\$42 000.00
Youth Centre and Recreational Facilities	8.1089	\$297 600.00
Bus Terminus	2.1050	\$155 900.00
Public Conveniences	0.7000	\$15 000.00
Industrial	8.9775	\$176 968.00
Other Properties	3.1853	\$245 700.00
Total	5 499.3355	\$4 374 242.87

Source: City Valuation Branch-BCC

- 4.2.3 Government properties are found in various suburbs around the city and these cover some 3 500 hectares. There are 46 state owned properties in the city and these include residential properties and stands, hospitals, schools, police stations, post offices, tertiary educational institutions, magistrate courts, the High Court and government offices among others. Some government properties which are not on records are those that have recently been transferred to government through endowment for example those emanating from subdivision processes. Development of government land by the Local Authority does not pose any serious problems/delays since exchange of land with central government is relatively easy. A list of government properties is provided in the appendices.

4.3 LAND TENURE

- 4.3.1 Land tenure is the way or system land is held or owned by individuals, groups of people, associations and companies. It forms the basis of development policy performing both an indirect facilitating role and a direct and active role. Land tenure interacts strongly with other elements of the urban economy being closely linked to the mortgage market which takes a substantial proportion of borrowed funds in most countries. It is a major determinant of the tax base, significantly affects the quality of and returns on investments undertaken in land structures (World Bank). Land tenure is more than a relationship between people and land as it embraces cultural, social and political concerns.
- 4.3.2 Before the colonial period the whole of Zimbabwe was made up of communal/tribal land. However, when the country was colonized two other land tenure categories were introduced state land and freehold land. Zimbabwe has three land tenure systems, namely tribal (communal), state and freehold land. The main distinctions in these land tenure systems are in their title holdings and authorities responsible for their administration. Communal land is owned by tribal authorities in trust for communities since it is communally owned and they perform land administration functions which include the granting of usage rights. On the other hand, state land is held and administered on behalf of the Government by the State Lands Office, while its allocation is on a Fixed Period State Grant (FPSG) basis. Freehold land is freely and wholly owned by individuals and held in perpetuity.

Types of Land Tenure

- 4.3.2 In the city there are two (2) main types of land tenure namely freehold and leasehold.
- (i) **Freehold tenure:** is absolute ownership of land where no land right holder is superior to the other. A freehold is of indefinite duration and is inheritable. A freeholder has title deeds and is bound by laws of the country/land and nothing else.

(ii) **Leasehold** is a contract granting exclusive rights to possession of land or buildings for a fixed or determinable period shorter in duration than the interest of the person making the grant. All leases are necessarily derived directly or indirect from leasehold. To obtain freehold title several processes have to be followed. In Zimbabwe's urban areas those who are offered land by councils, first obtain and sign an agreement of sale with the local authority. Development conditions are stipulated in the agreement including the period within which the beneficiary is expected to complete the construction. Title to the property may be obtained after development has reached a certain stage, in terms of the local authority's laid down rules.

4.3.3 Lease agreements are also entered into by individuals and institutions with council for utilisation of pieces of land for a certain period. Sometimes leases with option to purchase are offered to the applicant.

4.3.4 In Bulawayo most properties are held under freehold tenure although in the high density areas a substantial number of beneficiaries from council land sales still hold agreements of sale awaiting freehold tenure after fulfilling development conditions.

4.4 LAND USES

4.4.1 Map 8 depicts existing land uses dispositions within the Municipal boundary and the hinterland. An analysis/assessment of the existing land uses from a spatial point of view and in terms of land use practices is made with a view to identify land use conflicts and issues as well as taking into consideration spatial development potential and opportunities. Outcomes of such assessments/analysis will help in addressing the identified land use issues and conflicts as well as taking advantage of the spatial development potentials and opportunities when it comes to drawing up of development proposals.

Residential

4.4.2 This zone is the most predominant land use and consists of both developed and vacant properties. Residential areas cover approximately more than 70% of the total land areas which includes all density categories. The 2000-2015 Bulawayo Master Plan projected that there would be an additional 13 560 hectares of land required for housing during the 15-20 year plan period. Bulawayo City Council received 71 096 building plans over these years which is 35% of the projected demand of 200 000 houses (assuming residential was 70 000 plans and the remainder to other uses) therefore it can be assumed that some 35% of land required for housing development was taken up, that is 4 070 hectares. Therefore from the Master Plan's projection roughly 9 490 hectares are still needed to meet the Master Plan's projected land requirements.

- 4.4.3 During the last 15 – 20 years some residential neighbourhoods were developed in the city. In Cowdray Park more than 22 000 stands were created on 1 049 hectares, in Emganwini more than 4 000 stands were developed on 760 hectares while in Pumula South and Pelandaba West developments are still ongoing. Layouts in the high density areas have been prepared for Magwegwe North, Magwegwe West and in fills of Emganwini. Overall in the high density areas 29 264 stands were planned in the last 2 decades and of these 12 969 had been developed as at the end of 2017, over 15 000 stands remained undeveloped as shown in the table 4 below. It is important to note that land for residential development within Bulawayo municipal boundary is fast depleting due to high demand for housing especially low cost housing in order to meet the ever increasing housing waiting list which is now over 115 000. The development of residential stands has continued in the high density areas at a reasonable pace despite the unfavourable economic situation in the country. The most notable were developments in Cowdray Park, Emganwini and Pumula South.
- 4.4.4 In the medium density housing Mahatshula underwent a substantial development with over 2 000 stands developed. It is noted that there has been a substantial increase in the demand and provision of medium income housing and therefore more land should be set aside for this housing category. In pursuit of this objective the remainder of Umganwini has been set aside and layouts providing more than 6 000 stands have been prepared.
- 4.4.5 In the low density areas stands were created at Emhlangeni (391), Parklands East (418) and these were allocated and development is ongoing, meanwhile the development in Selbourne Park phase 2 and 3 continues. Table 4 below gives details on the position of stands with regard their development status. The 2 400 hectares of land proposed for this low density residential development have almost been depilated. There are tracks of developable land for this sector in Richmond area and part of Trenance as well as the northern areas that need to be considered for low and medium density housing.

Table: 4 - Existing Residential Stands by Density

Type	No of Stands Planned	No of Stands Developed/Developing	No of Stands undeveloped
High Density	29 264	12 969	15 295
Medium Density	3 289	2 835	454
Low Density	3 839	2 019	1 820
Total	36 392	17 823	17 569

Source: Department of Housing and Community Services-BCC

- 4.4.6 As at mid-2017 there were 17 569 undeveloped stands in all different density areas as shown in the table above. Most of these stands had been allocated and some of them

were being developed. The main areas where such stands occur are Cowdray Park, Pumula South, Pelandaba West, Luveve, Magwegwe North, Magwegwe West, Emganwini, Mqabuko Heights, Selbourne Park, Mahatshula, Parklands East, Emhlangeni, B2 of Bellevue and RE of Umganwini (stands not serviced, not allocated).

4.4.7 The above table may not create a correct picture on the actual scenario on the ground for the following reasons;

- (i) Vacant stands do not have any structures or buildings on them, regardless of ownership. In almost all low density areas most of the stands are privately owned (e.g. Mqabuko Heights) and may not be relied upon to satisfy housing demand as owners would develop at their own pace.
- (ii) Those vacant stands that have been sold by council are subject to an Agreement of Sale and cannot be sold to another party without consent of the local authority. The current difficult economic situation means that a number of vacant stands that have been bought will remain undeveloped for a long time. Even if the repossession procedure is undertaken, there is no guarantee that the next purchasers will develop the stands, therefore the availability of these stands does not give any assurance for any housing program implementation.
- (iii) Persons that have bought council stands are automatically removed from the housing waiting list but this is not matched properly with the pool of vacant stands.
- (iv) Apart from newly serviced residential stands all other stands would be considered non-available even though they are vacant.
- (v) At the present moment except for layouts at RE of Umganwini, Cowdray Park (new area next to Luveve High), Magwegwe West infill, Emganwini infills, most vacant stands are subject of agreements of sale implying that they are non-available.

4.4.8 It is necessary therefore that there is integrated planning and co-operation amongst relevant stakeholders to ensure that suitable land is zoned, planned, allocated and developed to satisfy housing demand and reduction of the housing waiting list.

4.4.9 With regard to areas outside the current Municipal boundary land for residential development has been identified particularly in the south, northwest, north and east of the city. In Lower Rangemore Lot 27A, remainder of Lot 27A and Emthunzini township a total of 3 214 hectares for residential development is currently under development. The development of Emthunzini (293 hectares) is almost complete whilst a layout for Lot 27A providing for some 4 000 stands has been prepared. In Upper Rangemore, there is a total of 1 029 hectares of land earmarked for residential development. Eight private properties in the area have approved layouts with a total of 411.5 hectares.

- 4.4.10 To the north, Reigate has had substantial medium density development whilst a new suburb, Hopeville is currently constructing 1 039 houses occupying 149.8 hectares. Other peri-urban areas that have private residential development on - going include Helenvale Block (over 7 000 stands), Montgomery (mostly 2 hectare plots), Douglasdale, Willsgrove (over 8 000 stands) and Kensington. With these developments being undertaken in the immediate hinterland of the city it is of paramount importance that the incorporation efforts/negotiations or memorandum of understandings that have been undertaken in the past years or so should be concluded as a matter of urgency in order to facilitate co-ordinated development.

4.5 LAND AVAILABLE FOR RESIDENTIAL DEVELOPMENT

High Density

- 4.5.1 Land for high density development is scarce within the Municipal boundary as almost all large vacant stands in areas set aside for high density residential development within the municipal boundary have been planned through detailed layouts. However, there is still a large piece of vacant land available in Hyde Park measuring approximately 5 164 hectares which could be developed into low cost housing. The challenge facing this land is sewer ability since the area lies on lower ground than the Southern Areas Sewage Treatment Works (SAST). However, due to a great demand for low cost residential development means must be found to connect this area to the existing sewerage works or to the proposed Northern Areas Sewage Treatment Works (NAST).
- 4.5.2 Lot 27A, Lower and Upper Rangermore and Dunkirk currently outside the municipal boundary present a natural area for expansion calculated for detailed proposals in the Written Statement. To the northwest of the city in the Helenvale Block there still exists some 5 000 hectares of land immediately adjacent to Cowdray Park but this is privately owned and hence development in the area is likely to be slow. Council may need to enter into negotiations with the owner to determine how there could co-operation to facilitate the development of low cost housing in this area. This potential high density residential area would be close to Cowdray Park Sewerage ponds and hence sewer connectivity would be easy. The solution again may lie in the development of NAST. More tracks of land in this area can be available for low cost residential development but this will ensure that there is acquisition of private land up to Siphaziphazi Siding.

Medium Density

- 4.5.3 This income bracket of residential development has been growing fast as witnessed by the springing up of Mahatshula and areas such as Emhlangeni. A layout plan for the provision of 760 stands is available in Mahatshula East and this is already planned and awaits funding to facilitate service provision. To the south of the city there is RE of Umganwini that is planned for medium density housing as mentioned before providing

for over 6 000 stands. However, there shall be provision for medium cost housing in all land acquisitions for residential development in the immediate hinterland of the city.

Low Density

- 4.5.4 Municipal land for low density/high cost residential development exists within the municipal boundary, in areas such as Richmond and the northern areas. The site lying between Princess Road, Masiyephambili Drive and Gleinvile Road appears suitable for low density residential development although more investigations to establish land suitability are needed. In northern areas to the west of Airport Road from Umguza River northwards the area could be used for high cost residential development in the near future using Aisebly farm for waste water disposal. Montgomery immediately to the east of Woodville provides a natural growth in that direction for high cost/low density residential development. The demand for stands in this income category continues to increase and to cater for this Selborne Park, Parklands Extension, Parklands East, Killarney East and Emhlangeni are being developed by council. However, this is not enough and as a result the Local Authority should encourage subdivisions of large properties that are found in the east and north of the city centre and also undertake large scale infill development to cater for this sector.
- 4.5.5 There over 5 000 flats and hostels scattered throughout the city with the highest concentration being in the central business district and older high density suburbs. Development of flats has been slow since Independence due to prohibitive costs although sites are planned for this type of development in almost all new layouts. There is a huge potential for flat development once the economic conditions in the country improve.

4.6 INDUSTRIAL

- 4.6.1 In the last decade there has been a decline in industrial activity in the city with industrial companies scaling down or completely closing down. Some of the industries affected include textiles/clothing, furniture, food processing, Cold Storage Commission and related industries like canning, polish making and tanneries. Some industries have even scaled down to as low as 25%. The decline/shutdown of industry has resulted in serious unemployment in the city resulting in high levels of poverty. Recently Bulawayo was declared a Special Economic Zone and preparations for this program's implementation are underway with Belmont industrial having been selected as the first study area. This Special Economic Zone will encourage the development of industries that are linked to the raw materials coming from the hinterland and resuscitation of old industries where necessary. Industries that are based on local raw materials include abattoirs (CSC) e.g. based on livestock as Matabeleland region is largely a ranching area, textiles based on cotton, foundry and steel industries, furniture industries based on the hardwood forests such as teak and mukwa which are abundant in Matabeleland North. It is therefore

imperative that development of Special Economic Zone leads to improved agricultural production and mining in the hinterland and beyond in order to supply the industries with the much needed raw materials.

Existing industrial Development

- 4.6.2 The industrial area of Bulawayo is well developed and consists of these major industrial areas as shown in the table below.

Table 5: Existing Industrial Area

Area	Industrial use
Barham Green	General
Belmont	General
Belmont East	Light
Belmont South	Light
Daviston	General
Donnington	General
Donnington West	Light
Kelvin	General/Special
Kelvin North	Light/Service
Luveve	Light/Service
Steeldale	General
Thorngrove	Light
Westerndale	Light

Source: Job Jika & Associates

- 4.6.3 In addition to these industrial areas there is a small amount of light and service industry in the central area (small workshops) and to the east of the city in the vicinity of Cement Siding there is an industrial complex specialising in cement and clay products and bricks which are important to the construction industry. Wills Grove also to east of the city along Gwanda road manufactures bricks.

- 4.6.4 At the time of the study there were 1 517 industrial properties in the city inclusive of all types of industries as well as the undeveloped industrial areas at Umvumila and Hyde Park industrial area which belongs to Old Mutual Properties.

Industrial Zoning

Zone 1: Service Industry

- 4.6.5 This comprises of industrial operations conducted for the express purpose of rendering services concerned with the day to day needs of the community. These types of industries include repairing, servicing, cleansing and general maintenance. Service industries are mainly located in Kelvin north and Luveve and they are mainly located near residential areas. Reservations for service industries have also been made in all shopping centres particularly in the high density areas. The development of service industrial stands has been rather slow which may be attributed to a lack of funding. There has been an increase in the development of overnight car parks in almost all high density residential areas and the ancillary activities which have emerged include tyre mending, firewood and gas sales.

Zone 2: Light Industry

- 4.6.6 Industrial operations in this zone are geared solely towards light manufacturing of articles and include altering, repairing and finishing off of various articles. This zone includes the present light industrial area in Belmont, including the industrial park in Doncaster Road up to 23th Avenue. Donnington West is also in this category of industrial zone.

Zone 3: Light Service Industry

- 4.6.7 This is a combination of zones 1 and 2. Industrial activities permitted in this zone are those permitted in light and service industrial zone. Three main areas which have been reserved for this zone include Daviston, Thorngrove and a portion of (undeveloped) Umvumila industrial areas.

Zone 4: General Industry

- 4.6.8 This zone includes the present industrial areas that is Donnington, Steeldale and Kelvin West.

Zone 5: Warehousing/Storage

- 4.6.9 These areas, strategically located adjacent to major distributor roads have been reserved for this purpose, include Thorngrove which serves the western industrial zone

and the southern area which can be linked to National Railways of Zimbabwe containerisation depot near Donnington. The northwest (Umvumila) may serve as an export processing zone.

Zone 6: Special Industry

- 4.6.10 This type of industry constitutes of works and processes (which in the opinion of local planning authority) are considered to be detrimental and potentially injurious to the health and safety in the surrounding areas. Such types of industries are noxious and highly polluting in nature. Most of the special industries are located in Kelvin and Donnington, as well as a portion of Steeldale has been zoned as a special industrial area. Future special industrial development has been considered in Westgate. In addition the area adjacent to the Cold Storage Commission which incorporates Sidojiwe residential flats has been zoned as a special industry.

Industrial Parks

- 4.6.11 Three main areas have been set aside for industrial parks namely a triangle covered by Gleinvile drive, Victoria Falls and Stuterford Road. These constitute of:
- (a) An area between Famona and Doncaster Road (existing)
 - (b) An area between Old Falls Road to the north and unnamed stream to the south
 - (c) The strip of land in west Summerton between Plumtree Road and the railway line to the south of Ianvale farm could be considered for an industrial park.

This type of industrial development (industrial parks) allows for an attractive mixture of uses with good landscape settings, well designed buildings and some supportive facilities and has been located along principal routes and adjacent to residential areas and proposed nature parks since they present good visual appearance.

Rail Provision

- 4.6.12 Rail service is of paramount importance to industrial development. A considerable number of properties in the old industrial areas of Steeldale, Belmont, Donnington and Kelvin are served by rail. There is potential for expansion of rail services in the developed industrial areas.
- 4.6.13 The future industrial area that could be economically rail serviced is the area is around cement siding, due to the following reasons:
- (i) Relatively flat to gentle sloping terrain.
 - (ii) Close proximity of industries dependent on rail for ferrying their goods e.g. Portland Cement and Clay products. These could satisfy the requirements of National Railways of Zimbabwe.

- (iii) Vast expanses of undeveloped land.
- (iv) Well developed road infrastructure (Harare Road in close proximity).

Future Industrial Land Needs

4.6.14 The land presently zoned for industrial development within the city's boundary has almost been depleted. However, there are two distinct areas that have not yet been developed namely:

- (i) Hyde Park close to Kelvin North owned and serviced by Old Mutual.
- (ii) North-western Commonage/Umvumila proposed for Export Processing Zone (EPZ) and partially serviced (256 stands). Westwards this piece of land stretches up to Masiyephambili Drive although there are a few residential properties within it.

4.6.15 There is also a smaller piece of land which is designated industrial in Cowdray Park area along the railway line and this can be developed for light/service industries.

4.6.16 There is need to identify suitable land for industrial development around the city. It should be pointed out that industrial land use by virtue of its nature lends itself to the challenge of suitable siting. Various factors such as soil types, wind direction, accessibility and railway links need to be considered at the onset. Thus these factors limit the land that can be considered for future industrial development.

4.6.17 Other constraints that heavily influence the location of industrial areas are:

- (i) The need to maintain links with established industrial areas and the Central Area.
- (ii) The need for good transportation linkages, including rail with the rest of the city. Some areas are therefore difficult to zone industrial because they cannot be provided with rail services economically. Also there is need for an effective public transport system for industrial-residential areas linkages.
- (iii) The polluting nature of some industries tends to keep them away from incompatible land uses e.g. residential areas as well as from the Airport safeguarded area, and this also has the effect of reducing the options on the choice of land.
- (iv) The need to separate residential and industrial development through effective buffers to protect residence from pollution and the need to effectively monitor pollution. However, at the same time there is even more pressing need to locate industry at points where they are easily accessible to labour.

Possible Land within Municipal Boundary

4.6.18 There is very little land within greater Bulawayo boundary that can be considered for future industrial development and this includes:

- (i) Railway operational land stretching from Donnington to Luvuvu Road. This area could provide a substantial amount of land but the local authority would be required to engage NRZ.
- (ii) Land sandwiched between Plumtree Road and the railway line running from Lanvale farm to Hlekweni turnoff. This site could be used as an industrial park due to its location as a gate way into the city from the south, so that an attractive and well landscaped environment is created.
- (iii) The above mentioned industrial areas of Hyde Park (Old Mutual) and Umvumila (EPZ) need to be prioritised as they have been lying idle for many years.

4.6.19 Important to note is the national vision 2030 which forecasts Zimbabwe as an upper middle income nation. Industrialisation and modernisation take centre stage in efforts to achieve this vision. Bulawayo as a selected Special Economic Zone is expected to play a leading role in this noble national program.

Possible Land outside the Municipal Boundary

4.6.20 With the shortage of industrial land within the Municipal boundary it would appear the best option for council is acquisition and incorporation of the identified suitable areas. Identification of some suitable land for the foreseeable has to be done. This option immediately lends itself to one major problem/obstacle that industrialists prefer to agglomerate and benefit from economies of scale. This factor is evidenced by the fact that industrial areas in the city have links to each other. It should also be noted that the land identified immediately outside the Municipal boundary is at least some 20 kilometres away causing accessibility problems from the Central Area. As a result there is a likelihood of reluctance or resistance to the development of this land as demonstrated by the slow pace of developing Luvuvu industrial area.

4.6.21 The identified areas are as follows:

- (i) The 400 hectares in a new estate in the Cement Siding area will complement the cement and clay industries as there is good access to Harare Road
- (ii) The 100 hectares in Willsgrange area are earmarked for light industry, service industry, small businesses, workshops and the informal sector

- (iii) Land to the west of Cowdray Park along the railway line up to Siphaziphazi Siding. Access will be from Tsholotsho Road or through Cowdray Park.

4.6.21 It will be prudent for this study to identify more prospective and suitable land for future industrial development immediately outside the city.

4.7 COMMERCIAL

The Central Area

4.7.1 The Central Area constitutes the hub of all commercial activity in the city. It has 95 blocks between 3rd and 15th Avenue, J Tongogara and Lobengula Street. According to the City Valuation records the CBD has 1 480 properties.

4.7.2 Development in the Central Area is controlled through Local Plan NO 4-Central Area and has been delimited by that plan as shown on Plan NO TPD 276/1. This local plan constitutes the main legal document for development control in the Central Area. Local Subject Plan NO 15 guides development of proposed 8th Avenue - Jason Moyo Street Mall. As a result this study will not detail activities of the Central Area, but refer to these plans. However, a few notable features that are of significance to this study are presented below:

Land Uses in the City Centre

4.7.3 Commercial activities constitute the dominant land uses in the Central Area but there also exists some residential, recreational, governmental uses, local authority uses, educational, industrial, railway, transportation, informal sector and office uses in the area. Local Plan NO 4 currently constitutes the guiding framework in terms of land uses but needs to be revised to accommodate current needs and development trends. For example there is an increasing number of applications to change the residential zone to commercial zone. Local Plan NO 18 has been prepared to establish the feasibility of such changes.

4.7.4 In response to the deteriorating economic situation in the country affecting all urban and rural areas there has been a move by the local authority to provide an enabling environment for the informal sector as demonstrated by its actions to accommodate the activity in the CBD. Fifth Avenue from R.G Mugabe Way to Lobengula Street has been designated as a vending area for the informal sector. The southern lane of the avenue has been closed and vendor bays created and allocated to the informal sector thus establishing a one-way, west-east vehicular traffic movement. The resultant vending area sites have been divided into sections for different types of informal sector

activities such as fruits and vegetables, odds and ends, old and new clothing, electrical goods amongst others.

- 4.7.5 Council has also authorised the establishment of 6 indoor flea-markets within the CBD demonstrating its progressive and responsible approach to local economic trends. Of note also is the establishment of outdoor flea-markets on 2nd Avenue and Lobengula Street, and the site next to Highlanders Football Club at corner Masotsha Ndlovu Avenue/Fife Street, as well as 3rd Avenue/Lobengula Street bus terminus which was converted into an informal trader's site.

Undeveloped Stands in the City Centre

- 4.7.6 There are many undeveloped stands in the Central Area whose owners do not appear to be eager to develop or sell them. In some instances some of the buildings have become derelict and unsightly. The local authority should enforce existing relevant statutory instruments to encourage or compel the owners to develop or sell these stands to facilitate meaningful development.
- 4.7.7 In general development within the CBD has been very slow since Independence and certain parts are viewed as underdeveloped as single storey buildings predominate. The envisaged large scale development in the Central Business Area is the proposed redevelopment of Lobengula/Basch Street bus terminus into an up market public transportation interchange hub that will also produce an upmarket commercial complex. Work on the project has just started and its completion is bound to improve the CBD's outlook and behavioural patterns.

Suburban Areas

- 4.7.8 In addition to the Central Business District there are numerous suburban shopping centres scattered throughout the various residential areas. Under ideal circumstances each suburb should have a commercial centre serving that locality. However the newly developed suburbs of Selborne Park, Buena Vista, Burnside and the old suburb of Killarney are some of the few that do not have commercial centres or even small corner shops for convenience shopping.
- 4.7.9 There are over 300 local commercial centres in all residential areas. There are 3 established district commercial centres in the city namely Entumbane and Nkulumane district commercial centres in the high density areas and Ascot Shopping Centre in the eastern suburbs. Other large commercial centres in the low density residential areas include Hillside, Zonkizizwe (Famona). Retreat, Bellevue Spar, South world and Bon Marche serve as neighbourhood commercial centres. City Council has proposed the redeveloping of former Ascot Race Course into a multi-purpose complex that will consist

of commercial uses, health centre, town house development, hotel, amusement/recreational uses as well as limited horse related sports.

4.7.10 Entumbane and Nkulumane District Commercial Centres also have country bus termini which help boost customer clientele of these shopping centres. However it is worthy to note that several shops at these District Commercial Centres are not occupied due to the current economic situation. The effect of these district commercial centres on the viability of local commercial centres in the neighbourhood is unknown. A study of this phenomenon would be of interest to the city.

4.7.11 Almost all local shopping centres particularly in the high density areas have informal sector sites particularly for informal traders who sell fruit and vegetables, odds and ends and old clothing.

Future Needs

4.7.12 The number and location of future commercial centres will be determined at local plan level and more accurately at layout preparation stage. The siting and provision of district commercial centres would be determined in this Master Plan Review proposals.

4.8 URBAN AGRICULTURE IN THE CITY

Introduction

4.8.1 Urban agriculture is the growing of plants and rearing of livestock for food and other uses within the urban and peri-urban areas. This may also include related activities such as production and delivery of inputs and the processing and marketing of products. The scale of agricultural activities is determined by the land size, availability of water, skills, labour, legislative framework as well as finance.

Urban Agriculture as an Important Land Use

4.8.2 Bulawayo City Council showed interest in promoting urban agriculture in 1995 when it sent an official to Washington to attend a workshop on urban agriculture. During that time urban agriculture was a relatively a newly recognised land use and very few countries appreciated its existence and importance. The Local Authority established an interdepartmental committee to study urban agriculture in the city and recommend how it could be supported. A first draft policy document on urban agriculture was produced and adopted by council in 2000.

4.8.3 The City Council also entered into a partnership agreement with Municipal Development Partnership (MDP) –RUAF in 2005 for a four (4) year urban agriculture development program. During the program implementation a number of activities were undertaken

such as the formation of a multi-stakeholder Urban Agriculture Forum which steered the promotion of urban agriculture activities and formulation of Bulawayo Urban Agriculture Policy in an effort to promote urban agriculture. The policy was approved by council in 2008, meanwhile for the first time urban agriculture had been incorporated into the city's budget in 2007.

Types of Urban Agriculture

- 4.8.4 Urban agriculture in the city is practiced under difference practices and arrangements. It is undertaken by households, groups or companies on designated plots or off plots, permitted or unauthorized, on a river/stream bank, on road reserves, on a farm or on illegally occupied land through rainfed or irrigation. At the time of the study some of the dominant urban agricultural activities in the city constituted of the following:

Designated/Zoned Areas

- 4.8.5 Residential/agricultural areas mainly constitute of land areas which are over 2 hectares that have been designated through the city's master or local plans. These plots are largely in peri-urban areas such as Douglasdale, Montgomery, Umvutsha, Upper and Lower Rangemore, Umguza agricultural plots, Norwood and Hyde Park. In addition to the above some of the areas where urban agricultural activities are being undertaken include the low density residential areas of Burnside, Lochview, Waterford, Buena Vista, Riverside, Trenance and Richmond. Cropping in these areas is mostly dependent on irrigation through the use of boreholes as the city is in a low rainfall area. Produce includes crops such as vegetables, maize, fruit, fodder crops, poultry, goats, sheep and dairy cows. The produce is marketed in the city especially at the wholesale markets which are in the central business district.

Special Consent Areas

- 4.8.6 Applications for special consent are mostly being received from the low density residential areas and involves applying for certain types of urban agricultural practices that require Council's special consent. Poultry and market gardening are the dominant agricultural uses being applied for. Sometimes applications are considered for cattle pen feeding, horse keeping and dairy production. Permits are granted by council with special health and environmental conditions.

Council Farms

- 4.8.7 Council has two (2) productive farms within its boundaries namely Aisleby and Goodhope. Aisleby Farm covers an area of 1 286 hectares and lies to the north of the city and this is where Aisleby sewerage works are situated. Treated effluent from the works is used for irrigating the farm pastures. A successful livestock production project

is being run by Ingwebu Breweries at Aisleby. There is also a project for keeping sheep which started in 2004.

- 4.8.8 Goodhope Farm adjacent to Aisleby produces maize and wheat. At a yield of 3 tonnes per hectare production is being harvested and this is considered low. This may be attributed to imbalances in nutrients as a result of shortages of farming inputs.

Garden Allotments

- 4.8.9 Over many years the city council has set aside areas for garden allotments in the high density areas. These were established in selected areas especially those with relatively fertile soils on vleis and along rivers or streams. There are twelve (12) garden allotments in the city, wholly funded by council which are scattered throughout the low cost residential areas. Some of the garden allotments are located in Makokoba near St Columbus, West Park near Mzilikazi, in Mabutweni, Mpopoma and Njube. These garden allotments were created particularly for the underprivileged members of society such as the elderly, destitute, the poorest and widows. There are more than 1 000 beneficiaries and each plot averages 130 square meters. The size of each garden allotment ranges from 0.42 to 4 hectares.
- 4.8.10 Poultry, mushroom production, rabbit rearing and the gardening project referred as PMRG was an initiative of NGOs in an effort to alleviate poverty. The project is operational in wards 15, 16, 17, 18, 19, 28 and 29. The project is located at Luveve near Luveve cemetery. It was initially funded by World Vision Zimbabwe but SNV later joined the project. The two NGO's have since pulled out and the Local Authority through the Housing and Community Services Department has since taken over.

Gumtree Plantation Project

- 4.8.11 The Gumtree Plantation project is located near Old Luveve Cemetery. This project was initiated in the late 1980's after the abandonment of sorghum fields by Ingwebu Breweries. The project beneficiaries are from wards: 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 29. The beneficiaries are mainly the elderly and pensioners. The selection was done by the Local Authority's Social Services section. The project was later funded by MDP and RUAF who constructed the canal and supplied inputs to the group e.g. seed and fertilizer. The project has more than one hundred (100) participants. The beneficiaries were recruited by the council social workers. Currently the project is striving on its own and council is coming in with the capacity building and irrigation system.

Khami School Leavers and Co-operatives

- 4.8.12 Khami School Leavers Training Centre is located near the Southern Areas Treatment Works (SAST). This is one of Bulawayo City Council's initiatives for training youths and

co-operatives. The centre offers general agriculture training practice and theory in both livestock husbandry and agronomy. In the livestock section emphasis is on cattle and piggery.

Unauthorized Urban Agriculture activity

4.8.13 This is the most prevalent form of urban agriculture in the city although it is seasonal, occurring mostly during the rainy season. Maize is the dominant crop under cultivation although other crops like sweet potatoes, melons, beans and pumpkins are also grown. This type of urban agriculture is being undertaken almost everywhere where there is an open space and during the rainy season maize fields become so much part of the city's landscape that goes even unnoticed as one moves around the city. Urban agricultural activities are being undertaken within residential stands, on open spaces, along road servitudes, on vleis, water courses and stream banks, on hill slopes, on old rubbish dumps, along servitudes for electricity water and sewers. A lot of urban agriculture is carried out on land that is planned, surveyed and even serviced, awaiting development in some cases.

4.8.14 The majority of households who are engaged in urban agricultural activities constitute of those in the low income groups who grow crops on part time basis for subsistence and improving food security and generate income. Usually the whole family is involved in maize cultivation although women appear to take a leading part. The sizes of the maize fields range from small patches measuring a few square meters to a number of hectares. There are no records on the yields and overall production of these unauthorized cultivations but the activity contributes to staple food production for the majority of the poor households.

4.9 THE HINTERLAND

4.9.1 The city's hinterland bordering the east, north and south of Bulawayo mainly consists of privately owned properties. In these areas developments are mainly privately initiated as demonstrated by residential development projects in the Rangemore area, but the Local Authority may encourage subdivision of properties within its boundaries and areas immediately outside, and the sale of such properties so as stimulate development.

4.9.2 The area surrounding Bulawayo has basically similar climatic and physical environmental characteristic to the city. Surveys by Agritex during preparation of this plan and earlier have shown that the areas immediately around the city are devoted to different agricultural activities with varying scale and intensity. The city is surrounded by commercial farming entities, that is large farms and plots whilst new resettlement areas are within some 20 to 30 kilometres and the nearest communal land area is some 40 kilometres away. It is therefore clear that the expansion of the city will require the acquisition of some of these properties albeit considering their agricultural potential

and contribution to the city's and national economy. A more detail study will be required on the utilization of these farms/plots in order to determine which plots can be acquired without seriously affecting agricultural production in the area.

- 4.9.3 In addition to the recommended study by Agritex, individual farmers were also consulted during the preparation of this plan through a questionnaire on their day to day activities and linkages and relationships with the city of Bulawayo pertaining to what they contribute to the city and what services they benefit from the city. A summary of the findings is outlined below.

Rangemore

- 4.9.3.1 Rangemore area lies about 14km from the city centre. The main land use in these agricultural plots is horticulture. The main source of water is from boreholes and produce comprises of a variety of fruits and vegetables sold locally and in Bulawayo. Of late there is substantial high density residential development initiated by private land developers such as Mbundane township, Nkulumane township and Nhlalo township. Although this area has a high agricultural potential its closeness to Emganwini and Nkulumane makes it suitable for immediate city expansion for high density residential development.

Douglasdale

- 4.9.3.2 It is about 16 kilometres from the city centre and is adjacent to Waterford suburb to south east from city centre. The major form of land use in the area is horticulture which is complimented by maize, small stock, piggery, dairy, poultry. Most of the farmers in the area depend mostly on borehole water with a few connected to the municipal system. Also there are specialised farming activities such as horse breeding, fruit and vegetable seedlings, dog kennels and cattery. Agricultural potential is limited due to poor availability of water. Many plots have an average size of 2 hectares and these can be readily incorporated into the city boundary.

Sauerdale Block

- 4.9.3.3 A large portion of Sauerdale has been invaded by gold panner's who have caused serious damage to the land by digging all over and making the area environmental vulnerable to soil erosion. The northern part of Sauerdale is used for agricultural research, forestry research and a game sanctuary.
- 4.9.3.4 There area has a huge potential for agriculture. Part of this land has been used for long term experiments on indigenous and exotic tress. Soils are suitable for mixed farming. Otherwise the portion close to the city's low density residential areas like Hillside South are considered suitable for residential expansion.

Pioneers Rest and Claremont

4.9.3.5 The major form of land use in these area is semi intensive livestock production coupled with horticulture and dryland farming.

4.9.3.6 The agricultural potential of these areas is limited by poor underground water supplies. There would be no immediate need to incorporate these areas into the city's boundary due to their location.

Kensington

4.9.3.7 The major land use in this area is agriculture namely piggery, poultry, semi intensive livestock production coupled with horticulture and dryland farming. Intensive agriculture is limited due isolated parches of suitable sites mostly in valley sections and isolated upland areas. The underground water is also very low. Kensington is considered suitable for inclusion into the city's boundary because of its closeness to the city.

Montgomery

4.9.3.8 The major land use in the area is horticulture and poultry supported by semi-intensive livestock production with dryland crop farming. Specialised farming such as dairy and greenhouse horticulture production is found in this area. There is a high potential for horticulture in areas with suitable soils and sufficient water. However, there is a section with deep Kalahari sands where limited agricultural activity is taking place. As Montgomery adjoins Woodville suburb in the north eastern part of Bulawayo, it forms a potential natural area for the city's expansion in that direction and more so, the soils are suitable for development.

Reigate and Umvutsha

4.9.3.9 The major form of land use in the area is dry land cropping supported by irrigation, poultry and some mining. There is substantial new development of medium density housing in Reigate as well as newly established suburb of Hopeville with 1 029 stands. There is also specialised farming in certain areas, notably dairying and ostrich farming. In terms of agricultural potential the soils are suitable for crop production as long as there is sufficient water but in addition there is potential for horticulture and specialised agriculture. This area was incorporated into the city for election purposes in 1999 through Statutory Instrument 212 of 1999, although it was not taken over by Bulawayo City Council for administration purposes. It is a natural area for Bulawayo's expansion to the north extending up to the airport and this is supported by proposals of Local Plan NO 10- Northern Areas as well as the 2000 Master Plan.

Dunkirk and Dunstal

4.9.3.10 Properties in this area constitute of small plots whose main activities include limited horticulture under irrigation, small stock production (i.e. piggery) and semi-extensive livestock production. In recent years council has subdivided parts of the area to the west of Khami River and offered plots to residents for horticulture on 25 year leases. If this area was to be incorporated for urban expansion the zoning may remain as residential/agricultural.

4.9.3.11 Agricultural potential in this area is most appropriate as horticulture under irrigation, although the soils are sandy with isolated patches of heavier soils.

Springs

4.9.3.12 The major form of land use is semi-intensive ranching. There is agricultural potential supported by irrigation development and intensification of livestock production. The current infrastructure makes the area suitable for ranching.

Upper and Lower Nondwene

4.9.3.13 The major form of land use is ranching with wildlife. The terrain is relatively flat to undulating.

4.9.3.14 In terms of agricultural potential the western part of Upper Nondwene lies on Kalahari sands where the potential is limited to extensive ranching. This area has already been incorporated into the city's boundary through Statutory Instrument 212 of 1999.

Willsgrove

4.9.3.15 The major form of land use is extensive ranching with quarrying for clay. There is limited agricultural potential on this property. Due to its closeness to the city it lends itself to incorporation. The owners have already taken the initiative as they have prepared a residential layout of mixed densities.

CHAPTER 5

POPULATION AND ECONOMIC PROFILE

5.1 INTRODUCTION

- 5.1.1 An analysis of population characteristics in urban and other spheres of planning is important in both urban and regional planning contexts. This population and economic profile chapter is founded on the principled need to attempt to have a good understanding the demographic characteristics and economic situation in the plan area through past trends, present situation and the likely future population and economic scenarios in the short, medium to long term. The demographic analysis will feed into other sectoral studies dovetailed towards successful achievement of the task at hand: Review and Preparation of a new Master Plan for the City of Bulawayo.
- 5.1.2 The coordinated efforts of the various role-players in the built-environment (City of Bulawayo in this case) i.e. experts and communities is aimed at not only shaping the city at present and in the future, but planning for, satisfying and making provision for the needs of the population presently and in future. The needs of the population and shape of the city's physical environment find expression through spatial planning; population distribution; provision of service infrastructure; community facilities and amenities.

5.2 POPULATION AND DEVELOPMENT PLANNING

- 5.2.1 In this chapter, various population factors and dynamics will be studied as they relate to the plan area. The analysis focuses on understanding population in terms of its size, distribution, growth and trends over time and the three key population factors, namely: fertility, mortality and migration as they impact on city planning and general service delivery.
- 5.2.2 Focussing the study solely on the City of Bulawayo would not give a good picture and fair understanding of the abovementioned population characteristics at a wider geographic context. The study will therefore draw comparisons with other towns and cities, provinces, the country at large and elsewhere as they impact on the city. In the national context, comparison is made with the capital city Harare and Zimbabwe's population characteristics, dynamics and trends.

5.3 CONSIDERATIONS IN ESTIMATING OR PROJECTING POPULATION SIZE

5.3.1 In analyzing the population trends in the City of Bulawayo it would be essential taking note of the following:

- i. Estimating or projecting population size at a given time is a critical aspect for planning purposes at various scales, be it national, regional or local scale;
- ii. Established through the Census and Statistics Act of 2007, the Zimbabwe National Statistics Agency (ZIMSTAT). The agency is the main source of official statistics in Zimbabwe and is mandated to play a coordination and supervisory role within the National Statistical System. ZIMSTAT has the authority to certify and designate any statistics produced in the country as official statistics having been satisfied that all the quality requirements of good statistics were met.
- iii. There are alternative methods for estimating population size and projection and these can neither be precluded nor excluded;
- iv. Population figures are an estimate at any given time due to the difficulty in confirming the figure as definitively accurate for a variety of reasons;
- v. When estimating the population size or projection, it would be useful to “compare with an equally accurate or more accurate method”;
- vi. Estimating population size is based on a scientifically grounded method tends to have a good measure of reliability and dependable results.

5.4 POPULATION COMPOSITION BY AGE AND SEX

5.4.1 Age and sex characteristics are critical factors in the demographics of an area. At the various age categories, people demand a wide variety of public services and programs, including facilities for children, jobs, schools, and needs for the elderly. The human sex ratio for Bulawayo has been in favour of females over males and the country falls within the category of countries with more females than males. The population of Bulawayo has consistently exhibited a preponderance of females over males in recent demographic historical population composition by sex. There was a marginal increase in the female composition from 52.2% in 2002 to 53.6% in 2012. Males on the other hand constituted 47.8% in 2002 declining to 46.4% in 2012. This calls for policies, interventions, programmes, etc. to ensure that females are catered for or empowered by not only the city but national government as well.

Table 6: Bulawayo Province Population 2012

Age Group	Number	Males % of Total	Number	Females % of Total	Total Population
Total	232	0.03	235	0.04	467
8422	3378	0.5	5044	0.8	8422
5499	2266	0.3	3233	0.5	5499
7652	3375	0.5	4277	0.7	7652
11186	5392	0.8	5794	0.9	11186
16812	8144	1.2	8668	1.3	16812
22125	9945	1.5	12180	1.9	22125
23251	10475	1.6	12776	2.0	23251
30848	15119	2.3	15729	2.4	30848
38995	18691	2.9	20304	3.1	38995
50660	23831	3.6	26829	4.1	50660
64078	28817	4.4	35261	5.4	64078
73239	31803	4.9	41436	6.3	73239
78205	33923	5.2	44282	6.8	78205
69510	32940	5.0	36570	5.6	69510
67679	32980	5.0	34699	5.3	67679
85176	42035	6.4	42674	6.5	84709
653337	303 346	46.4	349 991	53.6	653 337

Source: ZIMSTATS

5.4.2 The female 15 to 64 years age group increased from 33.6% in 2002 to 34.2% of the population in 2012. Meanwhile, the male population decreased from 30.2% in 2002 to 28.5% in 2012.

5.4.3 There was a decline for both males and females in the 15 to 24 year age group. Furthermore, there a decline in the composition of the 15 to 49 age group for males while there was an increase in female representation. The decline was from 27.1% down to 24.9% in 2012 for male representation. Female representation generally increased between the censuses. It is likely that considering that this is the labour force, the male composition decrease (183 265 in 2002 to 162 659 in 2012 (i.e. by 20 606 males within the labour force) could be attributed to migration for economic reasons and possibly emigration to destinations out of the country. The city's economy is currently depressed and tends to be a push factor for the labour force. This is further explored on the section dealing with migration.

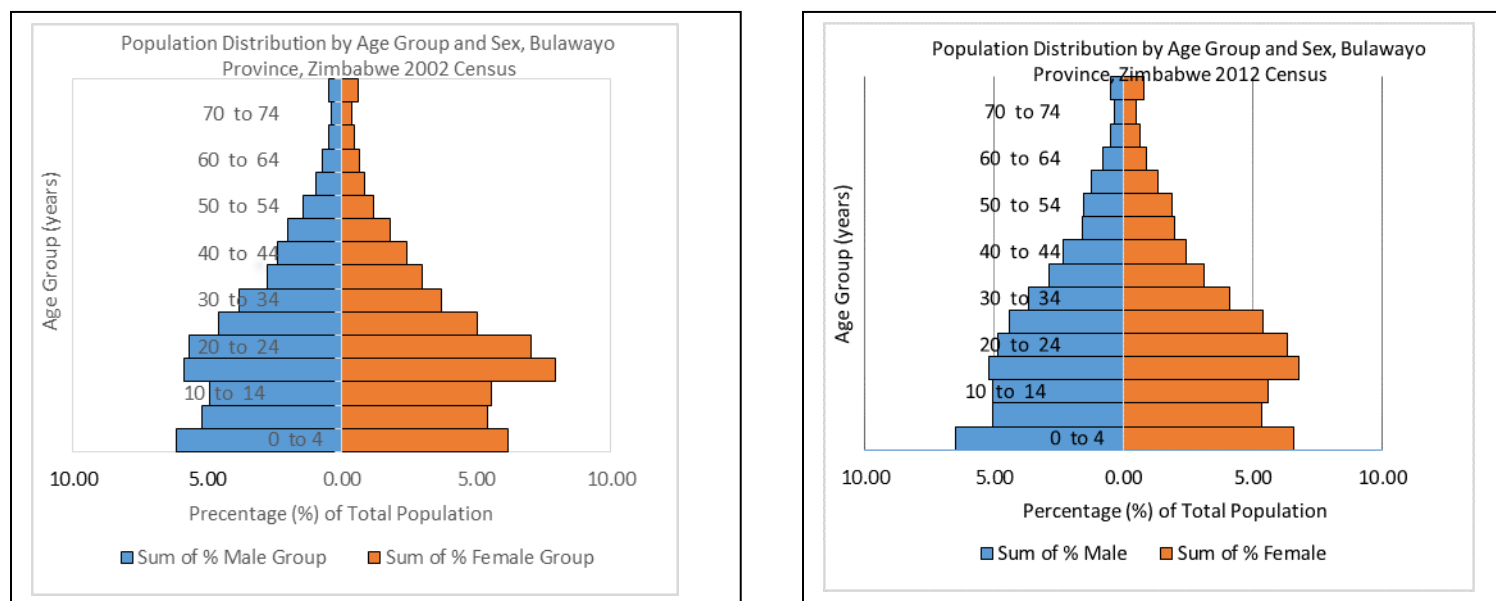
- 5.4.4 Table 7 is a summary of the population composition for Bulawayo in 2002 and 2012 Censuses respectively as extracted from Table 3 above. A graphic presentation of the population profile in 2002 and 2012 is depicted on the population pyramids in Figure 1. The population pyramids are wide at the base showing the presence of a youthful population while the bulge in the middle parts of the pyramids showing a significant number within the labour force and marked continuity in the growth of this age group. The old age population has the least representation as shown by the thinning of the pyramid towards the top.

Table: 7 Summary of the Population Composition

Age Group	2002		2012	
	Total Population	Percentage (%)	Total Population	Percentage (%)
65+	18699	2,76	21573	3,3
50 to 64	39177	5,79	50123	7,67
15 to 49	392785	58,05	359276	54,99
0 to 14	225989	33,4	222365	34,04
Total	676650	100	653337	100

Source: ZIMSTATS

- 5.4.5 The population of Bulawayo was characterised by a youthful population where the age group 0 to 14 years constituted a third of the population in 2002 and 2012. There was a slight increase in the composition from 33.4% in 2002 to 34.04% in 2012. The working age group 15 to 64 years has been the dominant cohort at 63.84% in 2002 decreasing to 62.66% in 2012. The fact that a third of the population were youthful in Bulawayo in 2012, means that the municipality will have to focus the provision of services for the youth such as public facilities and amenities for example early childhood learning centres, schools, healthcare and other public amenities in the short term. In the medium to long term, the youthful population will contribute to population growth and demand for jobs.

Figure 1: Population distribution by Age and Sex 2002 & 2012

Source: ZIMSTATS

5.4.6 In 2012, the 15 to 64 year cohort (labour force), Bulawayo and Harare had higher percentage compositions of 62.7 and 63.5% respectively. At national level, this cohort had a lower 55 percentage composition in 2012. This shows a higher inclination for residence by this age group in bigger urban centres due to the economic lure by big cities for employment and opportunities and subsequently, the pressure they exert cities in various sectors such as housing, the social scene, etc.

5.4.7 The old age cohort (65 years and above) increased from 2.76% in 2002 to 3.3% in 2012 in Bulawayo. This might be attributed to better medical care and social security in the urban centres of Bulawayo. The aged bring along pressures of their own in terms public healthcare and social welfare responsibilities of national government.

5.5 POPULATION BY AGE GROUP

5.5.1 In light of the decrease in population in Bulawayo according to the 2012 Census results, a close analysis is made with a view to establishing where in the population structure and composition there were changes including possible reasons. The age group 0 to 4 years grew in percentage composition in the national population in Bulawayo from 12.35% in 2002 to 13.04% in 2012 an increase by 0.7%. This coincides with an increase

in the Crude Birth Rate in Bulawayo from 26.99 per 1000 in 2002 to 27.3 per 1000 in 2012 and decreased to 26 per 1000 in 2017. On the other hand there was a decrease in the Crude Death Rate from 13.9 per 1000 to 9.3 per 1000 in 2012 with a further decrease to 4.7 per 1000 in 2017.

- 5.5.2 The composition of the 10 to 14 years age group grew marginally in Bulawayo's population composition from 10.5% in 2002 to 10.6% in 2012. There was a 3,3 percent decrease in composition of the 15 to 24 year age group from 26.5% in 2002 to 23.2% in 2012. This is part of the working age population.
- 5.5.3 It can be deduced from these figures the crude birth and crude death in Bulawayo was likely not responsible for the decline in population. In fact, as would be seen in the ensuing sections, there a natural increase of 0.5% from 1.3% in 2002 to 1.8% in 2012. It is likely that migration for economic reasons cannot be ruled out for this decrease considering that this cohort is also of child-bearing age and when they migrate, it does affect population growth.
- 5.5.4 The 25 to 39 cohort experienced an increase from 22.9% in 2002 to 23.5% in 2012. There was however a slight dip in population percentage composition from 8.62% in 2002 to 8.28% in 2012 for the age group 40 to 49 years. The 50 to 64 year cohort increased from 5.79% to 7.67% in 2012. These age groups cumulatively accounted for a decrease of 35 956 people as a result of decreases in the age cohorts 5 to 9 years, 15 to 19 years, 40 to 44 years and 45 to 49 years from 2002 to 2012. The reasons vary from cohort survival to the economic migratory tendencies of this group. Those aged 65 years and above increased from 2.8% in 2002 to 3.3% in 2012 which may be attributed to improved medical care for the aged, decrease in the crude death rate from 13.9 per 1000 in 2002 to 9.3 per 1000 in 2012 and an increased in life expectancy.

5.6 CRUDE BIRTH RATE AND CRUDE DEATH RATE

5.6.1 Fertility

- 5.6.1.1 The number of women of childbearing age women was 209 160 (31%) in 2002 decreasing to 196 617 (30%) in 2012. The 2012 Census indicates that there was a decline in the number of women of childbearing age by 12 543 women in this category. The Total Fertility Rate for Bulawayo increased 2.6% in 2002 to 2.8% in 2012. The Total Fertility Rate increased for Harare and the country during this time. Table 8 below shows the Crude Birth Rate (CBR), General Fertility Rate (GFR) and Total Fertility Rate

(TFR) for Bulawayo, Harare and Zimbabwe. Comparison is made between the Crude Birth Rate and the General Fertility Rate which is the number of births per 1000 of reproductive ages for Bulawayo, Harare and Zimbabwe at large. The General Fertility Rate, like the Crude Birth Rate has consistently been lower for Bulawayo compared to Harare and the country from 2002 to 2012 save that it was higher than that for the country in 2002. When the General Fertility Rate was 87 per 1000 women in Bulawayo it was 100 and 117 in Harare and Zimbabwe respectively. It increased to 91 per 1000 women in 2012 but was again lower than Harare (110) and Zimbabwe (127). The intercensal demographic survey of 2017 showed a decline for Bulawayo, Harare and Zimbabwe. This trend has an impact on the population growth rate for the city in that it has an inclination for lower growth compared to the capital and the country meaning that even other provinces registered higher rates than the City of Bulawayo.

Table: 8 Crude Birth Rate, General Fertility Rate and Total Fertility Rate for Bulawayo, Harare and Zimbabwe.

Year	Crude Birth Rate per 1000	General Fertility Rate per 1000 women 15 to 49 yrs	Total Fertility Rate	Crude Birth Rate per 1000	General Fertility Rate per 1000 women 15 to 49 yrs	Total Fertility Rate	Crude Birth Rate per 1000	General Fertility Rate per 1000 women 15 to 49 yrs	Total Fertility Rate
Bulawayo				Harare			Zimbabwe		
2002	26,99	87	2,6	30,56	100,5	2,8	33,8	30,2	3,6
2012	27,3	91	2,8	33,3	110	3,1	31,9	127	3,8
2017	26	85,5	2,6	30,6	99,8	3	29,8	119,9	3,7

Source: ZIMSTATS

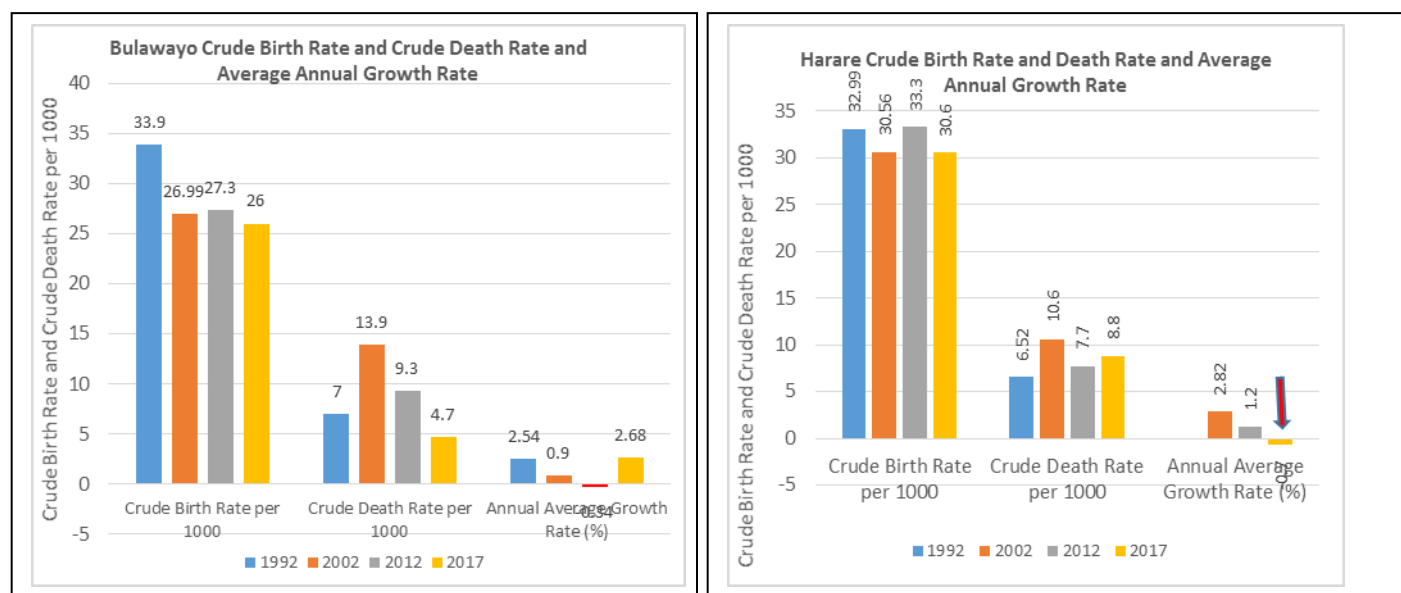
5.6.1.2 The Crude Birth Rate for Bulawayo is analysed within the national context with particular comparison with the country at large and the capital city, Harare. Table 9 and Figure 2 show that the Crude Birth Rate for Bulawayo declined for 33.9 per 1000 in 1992 to 26.99 per 1000 in 2002. During the same period the Crude Death Rate doubled from 7 per 1000 in 1992 to 13.9 per 1000 in 2002 resulting in a decrease in the average annual growth rate from 2.54% in 1992 to 0.9% in 2002. The Crude Birth Rate increased slightly from 27 per 1000 between 2002 and 2012 while the Crude Death Rate further declined from 13.9 per 1000 in 2002 to 9.3 per 1000 in 2012. This situation prevailed while the population declined at an annual average decrease of 0.34% or by 23 313 people. This decline has generated debate among the relevant stakeholders regarding the city's population status and growth over the years. By 2017 the Crude Birth Rate in Bulawayo declined to 26 per 1000 while the Crude Death Rate has continued to decline since 2002 reaching a low rate of 4.7 per 1000 in 2017.

Table 6: Crude Birth Rate and Crude Death Rate: Bulawayo, Harare and Zimbabwe

Bulawayo				Harare				Zimbabwe			
Year	Total Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Year	Total Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Year	Total Population	Crude Birth Rate per 1000	Crude Death Rate per 1000
1992	620935	33,9	7	1992	1478810	32,99	6,52	1992	10412548	36	10,6
2002	676650	26,99	13,9	2002	1896134	30,56	10,6	2002	11631657	33,8	17,22
2012	653337	27,3	9,3	2012	2123132	33,3	7,7	2012	13061239	31,9	10,2
2017	738600	26	4,7	2017	1973906	30,6	8,8	2017	13572560	29,8	10,2

Source: Zimstat Census 1992, 2002, 2012, 2017 ICDS

5.6.1.3 The Crude Birth Rate for Bulawayo has consistently been lower than that of Harare and the nation from 1992 to 2012 Census through to the Intercensal Demographic Survey undertaken in 2017. While a lower birth rate may be perceived in a positive light in terms of management of population growth, it can adversely affect the future development and growth of the city especially in terms of strengthening of the population momentum of the city and its sustainability in the future development of the City of Bulawayo.

Figure 2: Crude Birth, Death and Average Annual growth rate for Bulawayo and Harare

Source: 2017 ICDS

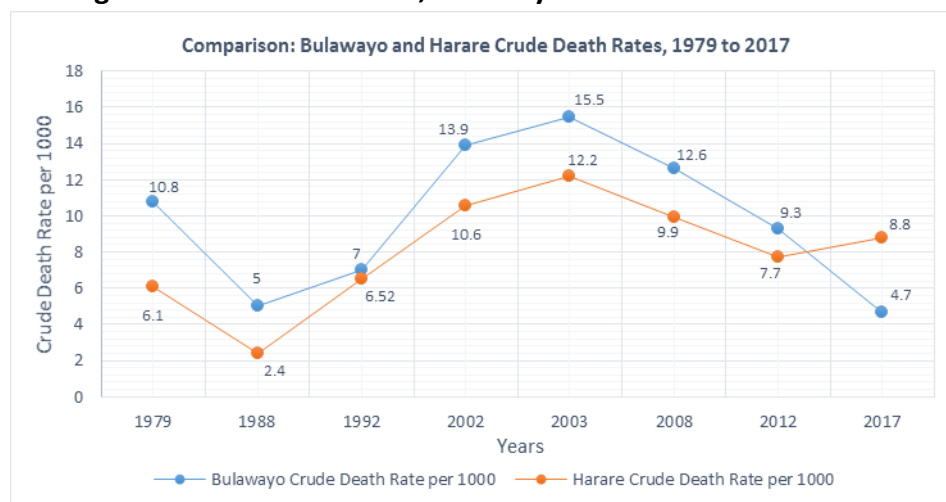
5.6.2 Mortality Rate

5.6.2.1 The death rate for Bulawayo reduced between 1979 and 1982 and declined at a reduced rate between 1982 and 1984 rising again between 1985 and 1988. As from 1988, the crude death rate for the city grew alarmingly peaking at 14 per 1000 in 2002. The spike in the crude death rate may be due to deaths arising from the HIV/AIDS pandemic. When the death rate began to decline after the introduction of Antiretroviral Therapy in 2004.

5.6.2.2 The high death rate can be attributed to high prevalence of HIV/AIDS across the country. The Crude Death Rate fell from 13.9% in 2002 to 9.3 percent in 2012 with a further fall to 4.7% in 2017. In terms of the Intercensal Demographic Survey: 2017, the Crude Death in Bulawayo fell further by 4.6% from 9,3% in 2012 to 4,7 percent in 2017.

5.6.2.3 Figure 3 shows that the crude death rate for Bulawayo has historically been higher than that for Harare since 1979 to 2012. The death rate for Bulawayo reduced between 1979 and 1982 and declined at a reduced rate between 1982 and 1984 rising again between 1985 and 1988. As from 1988, the crude death rate for the city grew alarmingly peaking at 14 per 1000 in 2002. The spike in the crude death rate was due to deaths arising from the HIV/AIDS pandemic. When the death rate began to decline after the introduction of Antiretroviral Therapy in 2004, although it still remained higher than that of Harare. Despite the decrease in the death rate, City of Bulawayo's health sector faces the challenge of ensuring that this rate declines even further. The death rate should serve as a guide for planners to properly plan for not only medical facilities burial land uses.

5.6.2.4 HIV/AIDS had a devastating effect in the country where in Bulawayo and Harare the death rate increased alarmingly between 1989 and 2002 where after it subsided in 2004 increasing again before falling again in 2006.

Figure 3: Crude death rate, Bulawayo and Harare 1979 to 2017

Source: ICDS 2017

5.6.2.5 According to the Zimbabwe Demographic and Health Survey, 2015 Bulawayo had the lowest under 5 years mortality rate of 50 deaths per 1000 live births compared to Harare's 58 and Mashonaland's 112 deaths per 1000 live births respectively. Child mortality was 40 per 1000, infant mortality at 40 per 1000, post neonatal mortality was 14 per 1000 and neonatal mortality was 26 per 1000 population in 2015. This is a positive reflection on the health sector achievements in lowering child mortality.

Table: 10 Early childhood mortality rates, 2015

City	Neonatal mortality per 1000	Post neonatal mortality per 1000	Infant mortality per 1000	Child mortality per 1000	Under-5 mortality per 1000
Bulawayo	26	14	40	10	50
Harare	23	20	42	16	58

Source: Zimbabwe Demographic and Health Survey 2015

5.6.2.6 Anti Retroviral Therapy has had a huge impact in reducing the number of deaths in Bulawayo and other centres in the country. Despite the decrease in the death rate, City of Bulawayo's health sector faces the challenge of ensuring that this rate declines even further. The death rate should serve as a guide for planners to properly plan for not only medical facilities but burial land uses.

5.6.3 Natural increase

5.6.3.1 The rate of natural increase in Bulawayo has gone up from a period of high in death rates between 1992 and 2002 from which there has been an upward trend in the

natural increase from 1.3% in 2002 to 1.8% in 2012 with a further increase to 2.1% in 2017 during the intercensal demographic survey. What is noticeable from table 11 is that as the natural increase went up from 2002 to 2012, the net migration was going down during the same period. The decline in population during this period could likely be a result of a decline in net migration than natural increase. The Intercensal Demographic Survey 2017 shows an increase in both the Net Migration and Natural increase. This has resulted in population growth from an annual average decline by 0.34% to 2.6 an annual average population growth of 2.68%. Should this trend be sustained into the future, Bulawayo will see its population grow considerably meaning that the city should have adequate plans to service the population needs.

Table: 11 Crude Birth, Crude Deaths and Natural Increase for Bulawayo, Harare and Zimbabwe

Year	Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Natural Increase (%)	Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Natural Increase (%)	Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Natural Increase (%)
Bulawayo						Harare				Zimbabwe		
2002	676650	26,99	13,9	1,3	1896134	30,56	10,6	2	11631657	33,8	17,22	1,3
2012	653337	27,3	9,3	1,8	2123132	33,3	7,7	2,6	13061239	31,9	10,2	2,2
2017	738600	26	4,7	2,1	1973906	30,6	8,8	2,2	13572560	29,8	10,2	2

Source: ICDS

5.6.4 Migration

5.6.4.1 Bulawayo like other provinces in the country is subject to the processes of migration through in-migration as people coming into the city and out-migration being people leaving the city. The movement of people occurs internally between towns, districts, provinces, etc and across international borders. These migration types would be assessed through net migration as a measure of either population gain or loss. In-migration increases the population while out-migration decreases it. Table 12 below shows migration statistics from 2002 to 2017 by way of a comparison between Bulawayo and Harare.

Table 12: Interprovincial Migration

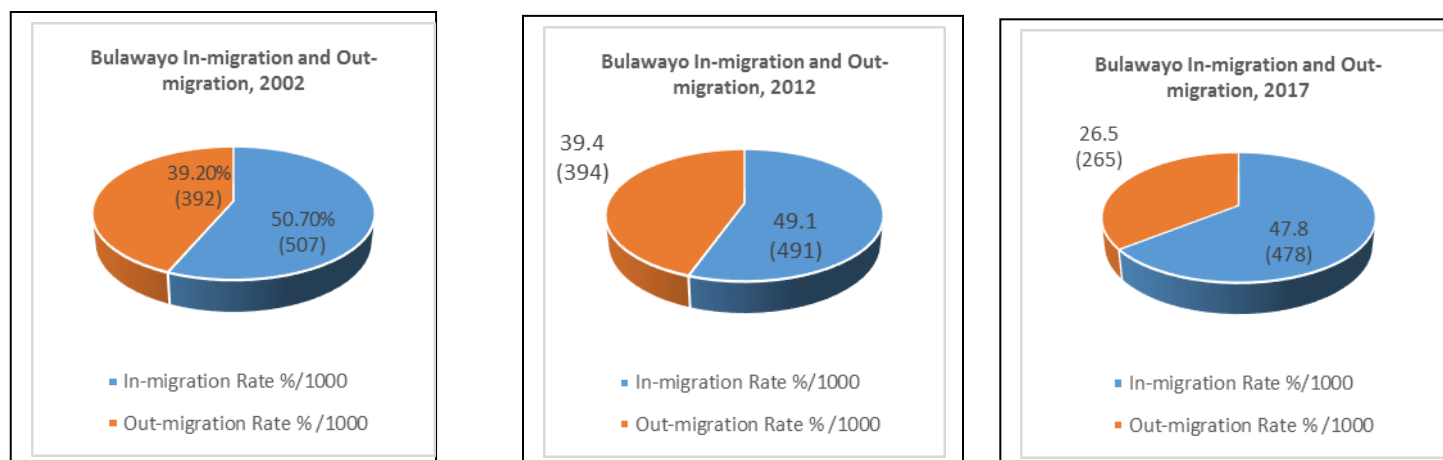
Province	Population	Born and Residing in Province	Born in Province	In-migration	Out Migration	Net Migration	In-migration Rate %/1000	Out-migration Rate % /1000	Net-migration Rate %/1000
2002 Census									
Bulawayo	664973	328008	539466	336965	211458	125507	50,67 (507)	39,2 (392)	23,27 (233)
Harare	1826075	868136	1430422	957939	562286	395653	52,46 (525)	39,31 (393)	27,66 (277)
2012 Census									
Bulawayo	652592	332103	547745	320489	215642	104847	49,1 (491)	39,4 (394)	19,1 (191)
Harare	2050699	1040864	1695303	1009835	654439	355396	49,2 (492)	38,6 (386)	21 (210)
2017 Intercensal Demographic Survey									
Bulawayo	738600	366 658	552 962	336 218	186 304	149 914	47,8 (478)*	26,5 (265)*	21,3 (213)
Harare	1973906	995 547	1 791 721	974 358	796 174	178 184	49,5 (495)*	40,4 (404)*	0.09 (90)

Source: ZIMSTATS

5.6.5 In-migration and Out-migration

5.6.5.1 In-migration

5.6.5.1.1 Bulawayo had about half (50%) of its population as immigrants at 507 per 1000 people in 2002, decreasing to 491 per 1000 people in 2012 and further down to 478 per 1000 people in 2017 as shown on Table 12 above and Figure 4 below. This had the effect of a decline in population growth especially in a scenario where in-migration was declining and out-migration was increasing between 2002 and 2012 resulting in a decline in net migration from 233 to 191 per 1000 between the respective censuses. The same trend is noticeable in Harare between 2002 and 2017. In 2012 Bulawayo and Harare had high in-migration rates of 491 and 492 per 1000 people. By 2017 Bulawayo and Harare maintained high levels of in-migration save that while Harare's in-migration rate rose, Bulawayo saw a decline in in-migration rate from 491 to 478 per 1000 between 2002 and 2012 respectively. It would be noted that although Bulawayo experienced a decline in the in-migration rate, it had the highest net migration rate at 213 per 1000 in 2017 compared to Harare's 90 per 1000 during the same period.

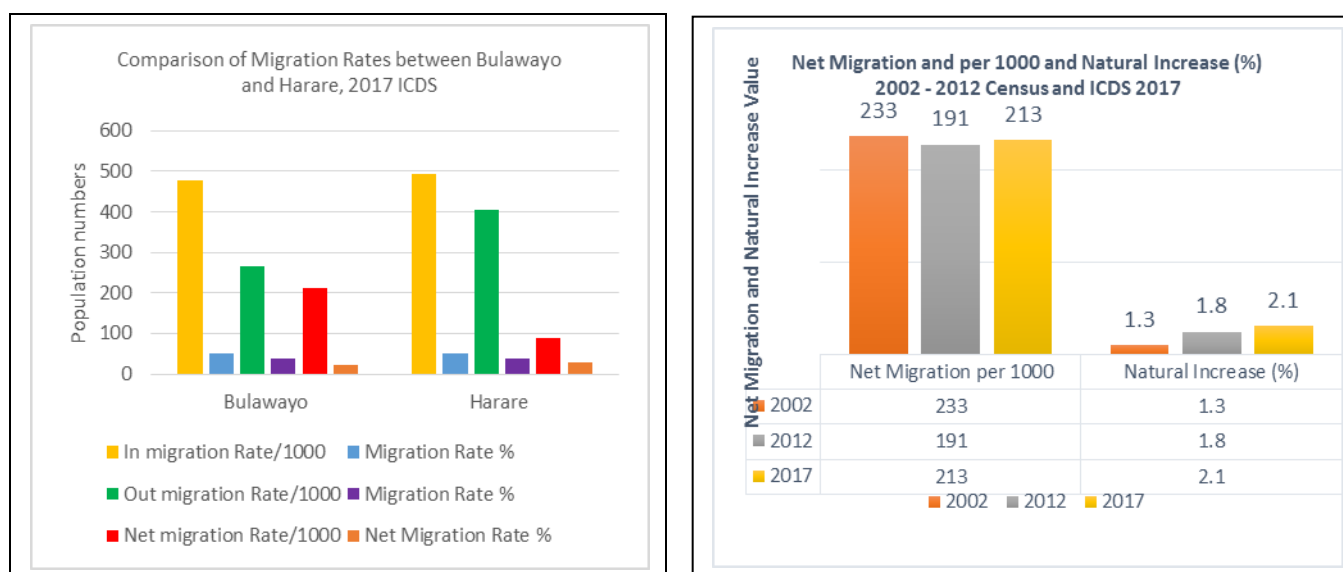
Figure: 4 Bulawayo In migration and Out migration 2002, 2012 & 2017

Source: ZIMSTATS 2002, 2012 & ICDS 2017

5.6.5.1.2 On the other hand, Bulawayo is a major urban centre in the south western region of the country and it still possesses a huge population pull force in the region due to an array of opportunities it offers to people. These high levels of immigration put pressure on the service delivery mandates of the city and therefore calls for various sectors to gear up and have appropriate plans in place to cater for the needs of a growing population.

5.6.5.2 Out-migration

5.6.5.2.1 On the other hand, out-migration has marginally changed in Bulawayo during the intercensal periods 2002 to 2012. Out-migration increased from 392 per 1000 in 2002 to 394 per 1000 in 2012. As a result of a decline in the in-migration rate and an increase in the out-migration, the resultant effect has been a decline in the rate of net migration. This could be a contributory factor in the decline of the city's population between 2002 and 2012 without discounting the effect of fertility and mortality and natural increase in the city's population decline during the same period. Out-migration decreased significantly from 394 to 265 people per 1000 during a period when in-migration increased to 478 per 1000 between 2012 and 2017. Put differently, Bulawayo is on an immigration-induced population.

Figure: 5 Migration Rates between Bulawayo and Harare & Net Migration per 1 000

Source: ICDS 2017

5.6.5.3 Net migration

5.6.5.3.1 Net migration in Bulawayo decreased from 23.27% (233 per 1000) in 2002 to 19.1% (191 per 1000) in 2012. This translates to a decline in net migration from 125 507 people in 2002 to 104 847 people in 2012. However, this was a positive net migration rate meaning that there were more people coming into the city than those leaving despite the decline referred to above. In 2017, as shown on table 13 below, Bulawayo had the highest net migration of 213 per 1000 while the rest of the provinces had lower net migration rates or negative net migration where the number of people leaving the province was higher than those entering.

Table 13: Inter-Provincial Lifetime Migration Proportion Matrix, Zimbabwe ICDS 2017

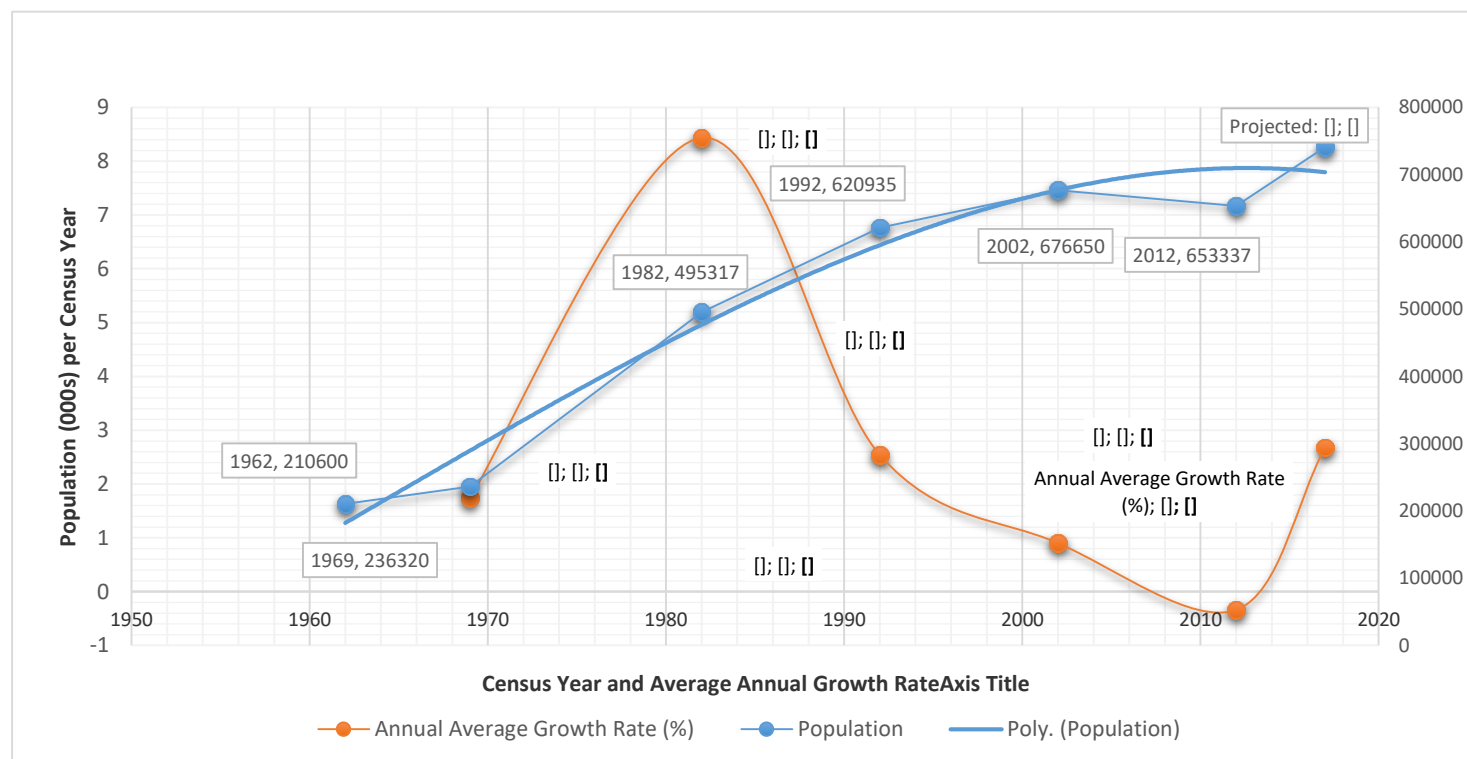
Province of Usual Residence	De jure Population	Born and residing in Province	Born in Province	In Migration	Out Migration	Net Migration	In migration Rate/1000	Out migration Rate/1000	Net migration Rate/1000
Bulawayo	702 876	366 658	552 962	336 218	186 304	149 914	478.3	265.1	213.3
Manicaland	1 897 563	1 369 553	2 101 891	528 010	732 338	-204 328	278.3	385.9	-107.7
Mashonaland Central	1 455 856	961 182	1 449 104	494 674	487 922	6 752	339.8	335.1	4.6
Mashonaland East	1 337 984	761 429	1 310 078	576 555	548 649	27 906	430.9	410.1	20.9
Mashonaland West	1 556 807	969 758	1 494 885	587 049	525 127	61 922	377.1	337.3	39.8

Matabeleland North	756 649	551 940	800 340	204 709	248 400	-43 691	270.5	328.3	-57.7
Matabeleland South	807 221	551 827	801 930	255 394	250 103	5 291	316.4	309.8	6.6
Midlands	1 519 324	927 771	1 521 698	591 553	593 927	-2 374	389.4	390.9	-1.6
Masvingo	1 524 399	1 050 046	1 703 975	474 353	653 929	-179 576	311.2	429.0	-117.8
Harare	1 969 905	995 547	1 791 721	974 358	796 174	178 184	495	404.2	90.5
Total	13 528 584	8 505 711	13 528 584	5 022 873	5 022 873	0			

Source: ICDS

5.7 POPULATION SIZE AND GROWTH

- 5.7.1 The analysis now focuses on understanding population in terms of its size, distribution, growth and trends over time and the three key population factors, namely: fertility, mortality and migration as presented above. The rate at which the population grows has implications for city development, employment and the provision of services such as infrastructure, housing, the environment and socio-economic development for a country, its regions and impacts beyond its territorial space.
- 5.7.2 The City of Bulawayo's population grew from 236 320 in 1962 to 495 317 in 1982, 620 935 in 1992, 676 650 in (2002), 653 337 in 2012 and 738 600 in 2017 as shown on table 14 and graphically on figure 6 below. A trend analysis of the population growth in the City of Bulawayo between 1962 census and the intercensal demographic survey of 2017 is shown on Figure 6. The population had a somewhat low annual average growth rate of 1.74% between 1962 and 1969. The period 1965 to 1979 is evidently below an established trend (i.e. population growth is below the trend line). This is a period before independence and its attendant colonial restraints on movement of black people. There were low rates of rural to urban migration by the black majority population who were largely confined to the countryside. There is however, a considerable increase in population between 1970 and 1979 as people moved to urban areas as the war of liberation intensified although it was still below the noticeable growth trend which peaked at a phenomenally high annual average growth rate of 8.43 percent.

Figure 6: Bulawayo' average annual growth rate 1962 to 2017

Source: ZIMSTATS & ICDS

5.7.3 The effect has been that while the City of Bulawayo's population grew at an annual average growth rate of 2,68 percent in 2017, Harare experienced a 0,7 percent decline in the annual average growth rate by 2017 while the country grew marginally at 0,39 percent. This may be attributed to improved healthcare, family planning or a decrease in the prevalence of HIV/AIDS.

Table 14: Population Size and Growth Rates: Bulawayo, Harare and Zimbabwe

Bulawayo						Harare						Zimbabwe					
Year	Total Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Annual Average Growth Rate (%)	Growth	Year	Total Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Annual Average Growth Rate (%)	Growth	Year	Total Population	Crude Birth Rate per 1000	Crude Death Rate per 1000	Annual Average Growth Rate (%)	Growth
1992	620935	33,9	7	2,54	125618	1992	1478810	32,99	6,52			1992	10412548	36	10,6		
2002	676650	26,99	13,9	0,9	55715	2002	1896134	30,56	10,6	2,82	417324	2002	11631657	33,8	17,22	1,17	1219109
2012	653337	27,3	9,3	-0,34	-23313	2012	2123132	33,3	7,7	1,2	226998	2012	13061239	31,9	10,2	1,22	1429582
2017	738600	26	4,7	2,68	87715	2017	1973906	30,6	8,8	-0,7	-149226	2017	13572560	29,8	10,2	0,39	511321

Source : Zimstat Census 1992, 2002, 2012, 2017 ICDS

5.8. POPULATION GROWTH AT A DECREASING RATE BETWEEN 1982 AND 2002 CENSUSES

5.8.1.1 The 1982 Census revealed that the population of Bulawayo had doubled from 236 320 in 1969 to 495 317 in 1982 (i.e. over 13 years). The cessation of the war in the transitional independence in 1979 saw population growing above the established trend with the annual average growth rate peaking at a high of 8.43% in 1982.

5.8.1.2 Population growth in the city post-independence may be termed an independence-induced population momentum which unlike the effects of high fertility (during baby booms) was however, not sustained over several decades. This would be discernible on figure 6 where unlike the high annual average growth rate of 8.43% in 1982 (495 317 people), the population grew to 620 935 in 1992 at a declining annual average growth rate of 2.54%. This was a period when HIV/AIDS ravaged the country resulting in increased mortality and population decline. The City of Bulawayo's population further grew to 676 650 in 2002 albeit at a further declining annual average growth rate of 0.9%. On the other hand, Harare's population grew at a higher annual average growth rate of 2.82% between 1992 and 2002. Meanwhile the country's population grew at an annual average growth rate of 1.17% during the same period.

5.8.2 Population Decline between 2002 and 2012 Censuses

5.8.2.1 The 2012 Census revealed that the City of Bulawayo continued to experience further decline in population at an average annual rate of 0.34% decreasing from 676 650 in 2002 to 653 337 in 2012. The population decreased by 23 313 people. As would be seen from table 14, the City of Harare also witnessed a decline in annual average growth rate from 2.82% between 1992 and 2002 to 1.2% between 2002 and 2012. This decline was also slightly felt nationally at 1.22% (2002 to 2012) down from 1.17% during the preceding intercensal decade 1992 to 2002. As a result Harare and the country at large experienced growth in the population even though at a declining rate. The Bulawayo situation is different in that it did not experience growth but a decline in population by 23 313 people.

5.8.3 The Bulawayo Population Decline Debate Explored

5.8.3.1 The publication of the 2012 Census results has been accompanied by consternation, dissatisfaction and debate on the results. The City of Bulawayo disputed the 2012 Census results and has based its argument through the application of the Housing Unit method as according to the local planning authority, it has the statistics to back its case.

The housing unit method is premised on the fact that almost everyone lives in some type of housing structure, be it a single family residential unit, an apartment, a mobile home, a college campus accommodation, or a prison. This method is equally reliable but depends on sound and reliable information being used.

5.8.3.2 Zimstat projected based on the 2012 census that Bulawayo would have a population of 728 680 people using the high population growth scenario. They estimate instead that the population grew to 738 600 in 2017. Zimstat indicates that Bulawayo had the highest net-migration of 213.3 people per thousand in 2017 and an annual average growth rate of 2.68 percent per annum. The municipality used an average household size of 6 people per household in 2012. According to Zimstat there were 165 345 and 184 692 households in the city in 2012 and 2017 respectively. If one were to adopt an intermediate average household size between the Zimstats figure and Bulawayo City Council, an average household size of 5 would yield an estimated 826 725 people in 2012 and 923 460 people in 2017. The difficulty however, is that an average household size of 5 would be the highest in the country excluding that of provinces with a higher rural population composition.

5.9 HOUSEHOLD CHARACTERISTICS

5.9.1 Number of Households

5.9.1.1 Table 15 below shows that Bulawayo had 165 124 households in 2002. The number grew by an incredibly low number of 221 households between 2002 and 2012. There was an upsurge in the number of households with a massive growth by 19 347 households between 2012 and 2017. It has been noted under the migration section that Bulawayo had the highest net-migration rate between 2012 and the Intercensal Demographic Survey of 2017. The marginal increase in the number of households coupled by a decline in the population between 2002 and 2012 has been a bone of contention between Bulawayo City Council and Zimstats. The low number of people enumerated in 2002 and 2012 has contributed to a negative growth in the population of the city such that it is beginning to grow after a low growth period.

Table 15: Population and Households, Bulawayo, Harare and Nationally

	Population	No. of Households	Average Household Size
	Bulawayo		
2002	676650	165124	4,06
2012	653337	165345	3,9
2017	738600	184 692	4

	Harare		
2002	1896134	491002	3,82
2012	2123132	534106	3,9
2017	1973906	530668	3,7
	Zimbabwe		
2002	11631657	2649921	4,35
2012	13061239	3059016	4,2
2017	13572560	3255463	4,2

Source: ZIMSTATS 2002, 2012 & ICDS 2017

5.9.1.2 Bulawayo's average household size has remained at about 4 people per household since 2002. This is consistent with the national scenario save that the average household size was higher in provinces with a larger rural population component.

5.9.1.3 The housing unit method is used as a method of estimating the population for an area but it must be accompanied by a determination of the average household size otherwise the population estimate becomes inaccurate. The fact that new suburbs have been developed and occupied cannot be simplistically advanced as an indicator that the population has increased. If there was an element of natural increase or a positive net-migration that would be justification for a population increase otherwise it can be argued that occupiers of new housing sites are part of the enumerated population either as lodgers or accommodated through other various forms of housing tenure such as living with relatives.

5.9.2 Average Household Size

5.9.2.1 The average household size for Bulawayo in 2017 was 4 persons per household. This is only an average meaning that there are some households with more than 4 people and some with less. It should be emphasized that the ICDS OF 2017 was not a fully-fledged census and that the full population census would emerge after the 2022 census. If one were to adopt an intermediate household size between the Zimstats figure and that of the Bulawayo City Council, an average household size of 5 would yield 923 460 people in 2017 based on 184 682 households in 2017. The problem with this average household of 5 is that the housing population register for the Bulawayo City council is not based on a scientifically undertaken exercise.

CHAPTER 6

THE LOCAL ECONOMY

6.1 INTRODUCTION

- 6.1.1 Bulawayo's economic region mainly consists of the South Western region namely the Matabeleland regions and part of the midlands regions and Masvingo. Historically the economy of this region has been heavily dominated by the mining and beef industries which depended on Bulawayo for inputs, services and marketing. More recently tourism has become a major local industry. Poverty within the region has been one of the factors limiting the growth of the city and preventing the city realizing its true potential.

6.2 BULAWAYO'S LOCAL ECONOMY

- 6.2.1 Bulawayo is an important industrial, commercial, administrative and cultural centre. The city has enjoyed these functions from the outset. After the Second World war, Bulawayo's economy enjoyed a period of boom and new industrial areas were developed. The city has traditionally been the industrial hub of the country with textile, tyre manufacturing, food processing, leather industries, heavy and light engineering concerns, to name a few. Notable industries were the Zimbabwe Engineering Company (ZECO), G & D, Radar Metal Industries, National Blankets, Merlin, Treger, Hunyani and the Cold Storage Commission. In addition there are many commercial enterprises, formal sector employment in the public sector and arable agriculture. The economic base and structure of Bulawayo cannot be described as strong at the moment but the city has all the potentials of transforming into a viable economy.
- 6.2.2 As a result of Unilateral Declaration of Independence (UDI) in 1965, there was another economic boom as the imposition of international sanctions fueled the creation of further manufacturing industries as a means of import substitution. The maintenance of a protective environment for industry between 1965 and 1990 helped to maintain a high level of employment in manufacturing but reduced competitiveness. The introduction of the Economic Structural Adjustment Programme (ESAP) in 1991 and the opening up of cheap imports especially from South Africa and Asia exposed many industries in the city to a harsh climate. Since then the manufacturing sector has continued to struggle and those factories and concerns that have survived have done so with a reduced labour force. Due to its links with South Africa and Botswana cross border trade and informal sector activities constitute one of the most common sources of livelihood.

6.3 THE CURRENT STATE OF BULAWAYO'S FORMAL ECONOMY

- 6.3.1 The lack of recent data for Bulawayo on employment, output and value by different sectors of the economy hampers detailed analysis of the current state of the economy. Similarly, lack of comparative data across the country also makes it difficult to perceive the strengths and weaknesses of the local economy. The most recent data used for the Study is the Zimsts report of 2012. As would be expected there are a number of differences between the local economy of Bulawayo and the national economy. For example agriculture is the dominant national economic sector while manufacturing dominates Bulawayo's economy. Distribution, transport and communication are noticeable locally and nationally. While more recent figures may alter some weightings in some sectors the overall picture will remain the same. The employment structure of the peri – urban will not alter the overall picture a lot as the numbers involved are small. In addition, a large number of the economically active within the peri-urban will travel to work in Bulawayo and be included as part of Bulawayo's employment figures.
- 6.3.2 The socio-economics of Bulawayo are inevitably influenced by the City's periphery which is characterised by vibrant cattle ranching interests together with other agricultural activities such as horticulture (vegetable, flowers production, etc.,) and general crop production (maize, sorghum, wheat, cotton, paprika, etc.,). Bulawayo is also surrounded by gold mines of varying sizes and natural ecosystem goods of interest such as forestry, rivers, lakes, dams, the Matopos hills and wildlife sanctuaries.

6.4 ECONOMIC ACTIVITIES, ECONOMIC GROWTH PATTERNS AND ECONOMIC INDICATORS, LABOUR FORCE, EMPLOYMENT, UNEMPLOYMENT AND POVERTY

- 6.4.1 There are various types of economic and socio – economic activities in Bulawayo. Within the respective service providers such as commercial and industrial specialization has increased. For example, within the retailing sector there has been an expansion from simple general dealers to supermarkets and chain stores. The banking sector is a notable feature within the financial landscape. Manufacturing has slowly crept in and the hospitality industry has become visible in the form of lodges and guest houses while heavy industry has declined. However the informal sector has rapidly established itself in the city due to a failure of the formal sector to absorb potential employees. However, there are many implications of the above scenarios. First, there is a strong potential for further economic development as supportive services exist. The presence of many small enterprises, especially in the retail sector risks overtrading. In addition the establishment of retail giants who enjoy economies of scale and back up capital, poses a further threat to the survival of smaller businesses especially those which are indigenous owned. Finally the informal sector has become a vibrant economic activity and has provided an avenue for self reliance, employment creation, poverty eradication and may serve as a potential tax base.

- 6.4.2 Bulawayo is strategically located in the region to attract investment through strategic campaigns for the establishment of industries which include beverages, livestock, vegetables, clothing and textiles, shoe manufacturing, solar energy technology. The existing irrigation schemes in the hinterland are assisting in the supply of vegetable produce to the wholesale markets.

6.5 CURRENT ECONOMIC ACTIVITIES AND EMPLOYMENT PATTERNS

- 6.5.1 Most of the cash income of the residents is derived from employment, pensions, rent, the informal sector and remittances from the diaspora. This is applicable to both male and female headed households. Although remittances constitute an important source of income for the residents, work related sources and investments are important means of social security. Money from farming and fishing is a main source of income for Zimbabweans (29%) while every 4th Zimbabwean (25%) relies on money from others (household members or remittances) and only 18% receive a regular salary.³ As a result in an effort to improve the economic framework work related strategies should be given priority in future planning efforts.

6.6 EMPLOYMENT

- 6.6.1 Employment is the state of having paid work. It signifies the state of anyone who is doing what, under the circumstances, he most wants to do. The employment rate is one of the economic indicators that economists examine to help understand the state of the economy.
- 6.6.2 Tables 16 and Figure 7 present statistics on employment and unemployment in Bulawayo and the country from 2002 and 2017. These statistics relate to the economically active population 15 to 64 years. The statistics from Zimstat have been collated as per their standard guidelines where work is not defined in terms of quality and this subsequently affects what is perceived as unemployment. The table shows high rates of employment in Bulawayo between 2012 and 2017 being 74.1% in 2002 declining slightly in 2012 at 72.6% with an increase to 78.7% in 2017. The employment rate been successively lower than Harare and the country in general where Bulawayo had 78.7 % employment in 2017 while Harare and Zimbabwe had 83.6% and 93.4% respectively.

Table 16: Employment and Unemployment as a percentage of the Total Economically Active

Census Year	Total Economically Active	Unemployed	Employed	Unemployment Rate (%)	Employment Rate (%)
Bulawayo					
2002	282787	71524	211263	25,29	74,1
2012	261188	71491	189697	27,37	72,63
2017	288659	61618	227041	21,3	78,7
Harare					
2002	831698	150664	681034	18,12	81,88
2012	898925	153218	745707	17	82,96
2017	757688	127145	630543	16,4	83,6
Zimbabwe					
2002	4839511	560288	4279223	11,58	88,42
2012	5120540	153218	4967322	11,1	88,9
2017	5611809	371244	5240565	6,6	93,4

Source: ZIMSTATS 2002, 2012 & ICDS 2017

6.7 UNEMPLOYMENT

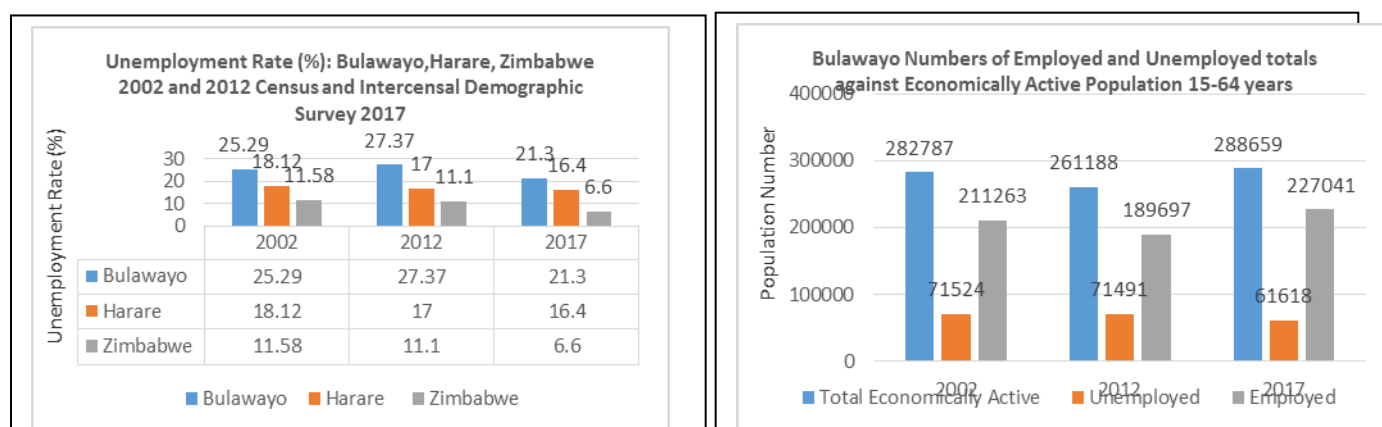
6.7.1 Zimstats defines unemployment a “situation where the supply of labour exceeds the demand”. It further describes the unemployed as those who had done no work and were looking for work and were available for work. The International Labour Organisation defines unemployment as those who are: out of work, want a job, have actively sought work in the previous four weeks and are available to start work within the next fortnight; or out of work and have accepted a job that they are waiting to start in the next fortnight.

6.7.2 The unemployment rate is number of unemployed people actively looking for employment as a percentage of the labour force (15 to 64 years old). It can be alternatively defined as a situation where those in the labour force are available and actively looking for employment, jobs or work but cannot find jobs. The standard definition of unemployment that it requires that a person is simultaneously without work, is currently available for work, and actively seeking work

6.7.3 A further analysis of employment and unemployment of the economically active age group, is made based on the 2012 Census (ICDS 2017 information not available by age group). It shows that regardless of the fact that there was a high rate of employment

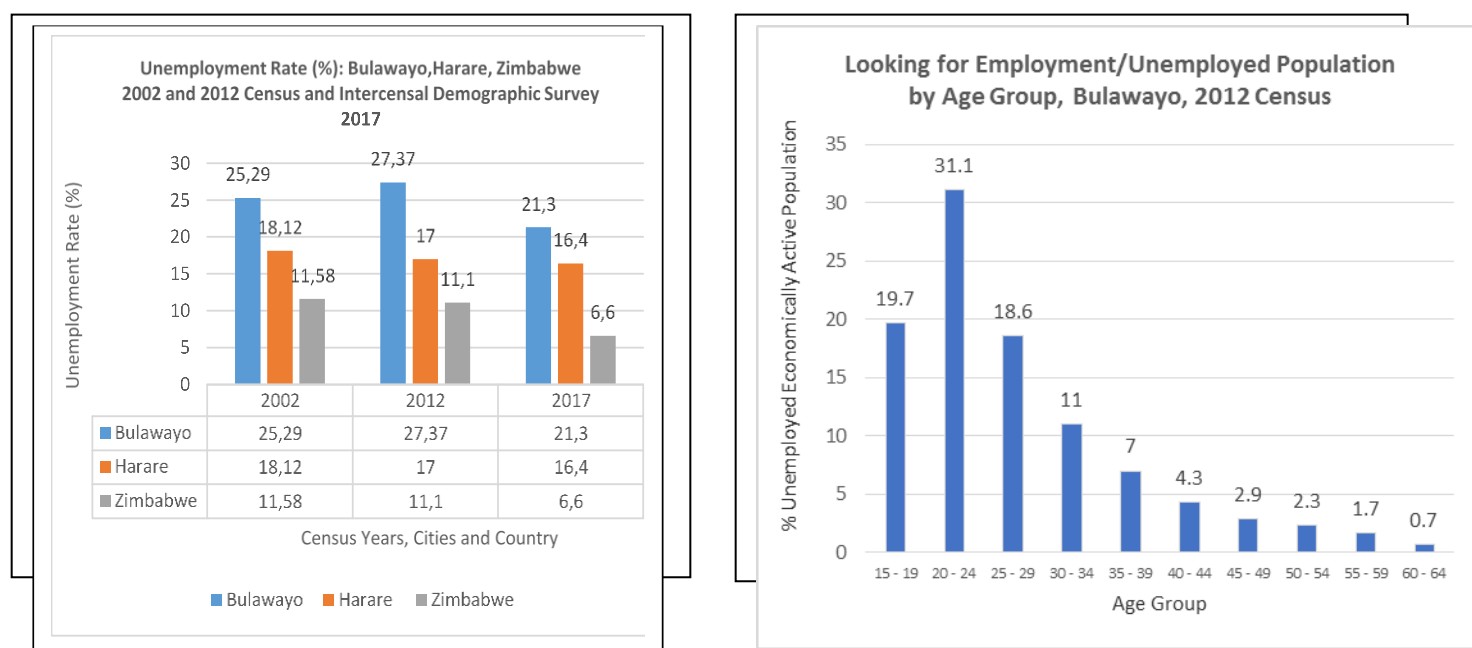
(according to Zimstat) in Bulawayo in 2012, of those unemployed, 52.1% fell within the early-working age group (15 to 24 years), 45.3% within the prime-working age 25 – 54 years group and 2.2% as mature workers (55 – 64 years) as shown on figure 7 below. The unemployed population within the working age group is composed of the 15 to 34 years age group who make up 80.4% of the unemployed population or those looking for work. Such a high rate of unemployment among the youth is a big challenge for the local planning authority and other sector departments at provincial and national government spheres. These people, together with those outside this group place a huge burden on those employed within the same age category.

Figure 7: Unemployment rate (%) Bulawayo, Harare and nationally



Source: ZIMSTATS 2002, 2012 & ICDS 2017

6.7.4 It is possible that a considerable number of people falling within the Own Account Worker (28 642) are involved in the informal sector while those under the unemployed category within the *prime working age* group 25 – 54 years might have been affected by economic depression and closure commercial and industrial enterprises. Moreover, those people who have given up looking for work are left out during the measurement of unemployment. In a nutshell, it can be argued that the unemployment rate has been under-estimated by taking menial, low quality subsistence jobs for employment whereas people are forced to do such jobs due to the dire economic circumstances they are facing hence end up doing low quality jobs for a living.

Figure 8: Unemployment Rate, Bulawayo, Harare & Zimbabwe

Source: Census 2002, 2012 & ICDS 2017

6.7.5 Putting these figures differently, Zimstats indicates that Bulawayo had a fairly low rate of unemployment with about a quarter of the people (27.4%) within the economically active population were unemployed. The unemployment rate further fell to 21.3% in 2017. The prevailing view on unemployment in the country including Bulawayo is that it has been trending at high levels contrary to the views from Zimstats. What is consistent on the subject of employment and unemployment in Bulawayo from the 2002 to 2012 censuses and 2017 ICDS is that consistently, Bulawayo had the lowest rate of employment but rated conversely highest on unemployment compared to Harare and the country in general as shown on figures 7 and 8.

6.7.6 Zimstats has over the years projected statistics on employment and unemployment as high for the former and low for the latter. This has generated intense debate as citizens and analysts “see” evidence of low employment and high unemployment in Bulawayo through closed industries and related commercial enterprises. The loss of Bulawayo’s status as an industrial economic hub gives credence to the notion that the closure of industries gave rise to unemployment.

6.7.7 The notion that there is a high rate of employment is not only misleading but is dangerous and is not be of assistance in drawing attention to the dire state of the local

economy. It has a tendency diverting the attention decision-makers, politicians, planners at the local authority, sector departments, the private sector and the communities at large towards away from formulating adequate plans and development initiatives to rescue the city from further collapse. However, the statistics on employment and unemployment are glaringly tangent to the evident problem of unemployment in the city. The problem with inaccurate statistics is that they adversely affect planning at local level and allocation of resources from the national fiscus throughout the plan period.

- 6.7.8 As at 2012, the city had 261 188 economically active people of which 189 697 were employed and 71 491 were unemployed. Of the total employed persons 58% were males and 42% were females. This emphasises the fact that more males were economically active than females in the city. Table 17 below shows the gender occupational stratification of men and women

Table 17: Current Occupation by Gender – 2012

Occupation	Male	Female	Total	Percentage	Dominant Gender
Gvt and Snr Officials	196	152	348	0.2	Male
Directors/Mgrs & Co Secretaries	3 315	1 650	4 965	2.6	Male
Natural Science	77	30	107	0.1	Male
Business & Finance	8 145	6 579	14 724	7.8	Male
Engineers & Technicians	3 801	321	4 122	2.2	Male
Life Science Professionals	1 386	2 655	4 041	2.1	Female
Education	3 885	7 577	11 462	6.0	Female
Law and Security	9 668	2 112	11 780	6.2	Male
Information	132	128	260	0.1	Male
Social Science	203	248	451	0.2	Female
Artists	1 621	722	2 343	1.2	Male
Religion	808	218	1 026	0.5	Male
Machine Operators	2 180	197	2 377	1.3	Male
Administration	1 061	1 055	2 116	1.1	Male
Clerks & Secretaries	4 007	5 077	9 048	4.8	Female
Transport	10 987	383	11 370	6.0	Male
Services	22 256	37 653	59 909	31.6	Female
Agriculture	1 742	1 044	2 786	1.5	Male
Mining & Construction	10 748	332	11 080	5.8	Male
Mechanics	6 871	193	7 064	3.7	Male
Manufacturing	7 303	4 120	11 423	6.0	Male
Others	2 641	495	3 136	1.7	Male
Not Stated	7 675	6 048	13 723	7.2	Male

Total	110 708	78 989	189 697	100	
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Source: Zimstats 2012

6.8 REMITTANCES

- 6.8.1 Zimbabwe has experienced massive out migration from year 2 000 to 2008 due to economic problems faced in the country. The people who emigrated are now living in the “diaspora” and send money back home. Remittances have become an important source of income for people in the urban and rural areas. Table 18 below shows the total amount of remittances to Zimbabwe from about amounted to US\$ 319.0 million per year. Households residing in urban areas receive the largest share of remittances from abroad amounting to US\$ 252.9 million which constitutes 79.3% of the total remittances while rural areas receive US\$ 66.2 million which constitutes 20.7% of the total remittances.

Table 16: Average and Total Annual Remittances from Abroad received by Households by Province, Rural and Urban Areas

Province	Average	Total	%
Harare	3 269	115 661 594	36.3
Bulawayo	2 376	73 202 975	23.0
Manicaland	1 256	13 452 512	4.2
Mashonaland Central	2 686	11 785 908	3.7
Mashonaland East	1 590	11 203 656	3.5
Mashonaland West	1 955	16 183 956	5.1
Matabeleland North	1 158	8 612 518	2.7
Matabeleland South	2 004	15 581 812	4.9
Midlands	1 996	26 981 866	8.5
Masvingo	1 729	26 355 009	8.3
	2 269	319 021 814	100.0

Source: Poverty Income Consumption and Expenditure Survey 2011/12

6.9 TYPE OF ECONOMIC ACTIVITIES

- 6.9.1 The economic profile of Bulawayo is skewed and is dominated by wholesaling or retailing and the public sector which constitutes of public administration, education, health and social work, community and the NGO sector. Most of the activities are classified as non basic service activities which do not generate growth. As a result the productive sector such as manufacturing, mining and construction need to be expanded. From the table above gender inequalities are apparent in the way employment figures are distributed between man and women. For example women dominate the service sectors in the education sector, secretarial services while men take up the more lucrative primary activities such as management positions in public administration, directorship, law and security as well as mining and construction. Although these

patterns reflect socio – cultural divisions of labour based on stereotypes, they do translate into serious inequalities in incomes between men and women. In an effort to achieve equitable development, women and girls need to be encouraged to take up training courses and skills that will enable them to participate on an equal footing as their male counterparts.

6.10 ECONOMIC ACTIVITY

6.10.1 There were 261 188 economically active people in the city as at 2012. The majority of people who are economically active are paid employees. Table 19 below summarise the disadvantaged position in which women find themselves economically. This translates to their ability to have access to goods and services which impinges on their quality of life. In summary, men dominate in the employment sector while women do so in unpaid family worker and looking for employment/unemployed. Activity and labour force focused on the population age at least 15 years and these constituted 66 percent of the total population. Out of these, around 60 percent were in the labour force. The proportion of those in the labour force who were unemployed was about 28 percent. Almost 1 percent of children age 10-14 years were economically active. The proportions of those not in the labour force who were students was 39 percent, homemakers 42 percent, and retired/sick/too old 14 percent. Out of those who were employed, the highest proportions (32 percent) were engaged in services related occupations, followed by Business and Finance (8 percent).

Table 19: Economic Activity by Gender – 2012

Sex	Paid Employee	Employer	Own Account worker	Unpaid family worker	Looking for work/unemployed	Total
Male	79 539	1 461	28 642	1 066	35 101	145 809
Female	48 143	633	28 519	1 694	36 390	115 379
Total	127 682	2 094	57 161	2 760	71 491	261 188

Source: Zimstat 2012

6.10.2 The leading non economic activities are those of student and unpaid family worker respectively. Paid employee is dominated by males which may be attributed to their comparative qualification advantage into the labour market. However, this is interesting as according to the 2012 Housing and population census women constitute the majority of people who have the highest level of qualifications from secondary school and above.

6.10.3 The majority of people in the unpaid family category are females. The implication is that they are engaged in invisible activities in the domestic, reproductive and productive spheres that are normally underrated socio-culturally despite their contribution to household and national development.

6.11 THE INFORMAL SECTOR

6.11.1 It is now part of a common discourse in Zimbabwe in general and in Bulawayo in particular that formal employment has been replaced by a high degree of informality. Bulawayo streets in the Central Business District, Regional Centres, Community Centres, neighbourhood centres convenience shops, are teeming with informal merchandising/trading in food, clothing, airtime, artefacts, etc. This is informal work and is better pronounced as such and should not be clouded as employment without qualifying or classifying it explicitly as informal employment. The classification of informal work as part of work the mainstream is a highly contested matter and one is of the view that informal work is more meaningful as work if it plays a complementary role to formal work towards the developmental path of the city. Malte Luebker (2008) notes that labour statisticians in Zimbabwe likely have a different understanding from an ordinary Zimbabwean, who may be engaged in some form of work consider themselves unemployed as they do not have a *proper job*. In carrying out its work, Zimstats' mandate is not to differentiate between the perceptions of *good* and *bad* jobs, and treats all those who work as employed.

6.11.2 Some of the facts to back up the argument that in fact the city experienced a high unemployment rate contrary to Zimstat statistics are the following:

- It is a fact that the country has witnessed an economic depression and economic collapse since 2002 to date;
- Bulawayo has not been immune from economic depression and economic collapse since 2002 a case in point being the closure of several industrial and commercial enterprises at the main economic zones in the city;
- Industries have relocated to other parts of the country and to neighbouring countries and workers have lost jobs;
- The upsurge in informal trading is an indicator of loss or unavailability of jobs in the formal sector hence;
- Some graduates from high school and tertiary institutions are unemployed and at best are doing menial work;

6.11.3 The fact that more than 80 000 people are unemployed does not mean that such people are idle and undertaking no form of economic activity. Bulawayo has seen a proliferation of informal sector activities since the introduction of the Economic Structural Adjustment Programme (ESAP) and the numbers of people in this sector is

increasing at all times. Until such time that the formal economy gains momentum and begins to create formal employment the number of people who are engaged in this sector will continue to grow as people make efforts to survive.

- 6.11.4 The number of people involved in the informal sector has not been systematically recorded. However, given that welfare payments are either non-existent or very low and most of the people who are gainfully employed have low salaries as they earn less than \$ 200 per month has resulted in them engaging in some form of informal sector economic activities in order to survive. Table 20 below shows the number of people employed in the informal sector by Province.

Table 20: Number of people employed in the Informal Sector by Sex and Province

Province	Male	Female	Total
Harare	114 731	93 919	208 649
Bulawayo	35 195	43 301	78 496
Manicaland	297 873	394 773	692 646
Mashonaland Central	209 373	218 286	427 659
Mashonaland East	160 923	199 925	360 849
Mashonaland West	208 598	213 769	422 367
Matabeleland North	100 580	127 944	228 525
Matabeleland South	117 487	145 979	263 466
Midlands	253 785	301 719	555 504
Masvingo	198 149	302 038	500 187
Total	1 696 695	2 041 653	3 738 348

Source: Poverty Income Consumption and Expenditure Survey 2011/12 Report

From the table above, there are more females 54.6% than males 45.4% who are employed in the informal sector. The same pattern is observed across provinces except for Harare where there are 55% males compared to 45% females who are employed in the informal sector. Masvingo has the highest number of females employed in the informal sector compared to other provinces.

- 6.11.5 The Informal sector has become a major economic activity in the city. The activities encompass legal and illegal trading activities. The major informal sector activities are characterised by inter-alia vending, sale of clothes, home industry, informal money changing and transport services. The location of informal sector activities is largely influenced by the nature of the activity. For example trading requires locations near to where people congregate in large numbers so as to provide optimum opportunities to generate income while manufacturing requires more space which is secure. Service industries are found almost everywhere from a residential house to a pavement in the city centre.

6.11.6 The growth in haphazard street selling has resulted in the city centre finding suitable locations for informal sector traders. Bays have been designated along some streets especially 5th Avenue, Lobengula pedestrian mall and near Highlanders club house where informal traders may sell their wares from at a small fee. Provision has also been made for informal sector traders especially those who sell 2nd hand clothes to sell near the revenue hall during weekends and public holidays. In addition to street trading a number of sites have also been designated for flea market areas, most of which are privately owned.

6.12 POVERTY AND POVERTY ALLEVIATION PROGRAMMES

6.12.1 As in other parts of the country and cities, poverty levels in Bulawayo are considered high in Bulawayo when it is realized that the unemployment rate is 28. Out of a total labour force of 261 188 more than 25% of the economically active is unemployed. This means that this percentage of the labour force is without any steady or regular source of income which in itself is a sign of poverty. With 28% of the labour force unemployed, the population living below the Poverty Datum Line (PDL) is equally high. The unemployed, the elderly and in most cases female headed are the most vulnerable to poverty. The effects of poverty are wide ranging from tendency towards crime, sickness and poor quality of life to alcoholism. Destitution is one of the major consequences of poverty. From a United Nations, (UN) (2009) perspective:

Poverty is the inability of having choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go to, not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living in marginal or fragile environments, without access to clean water or sanitation. (UN, 2009).

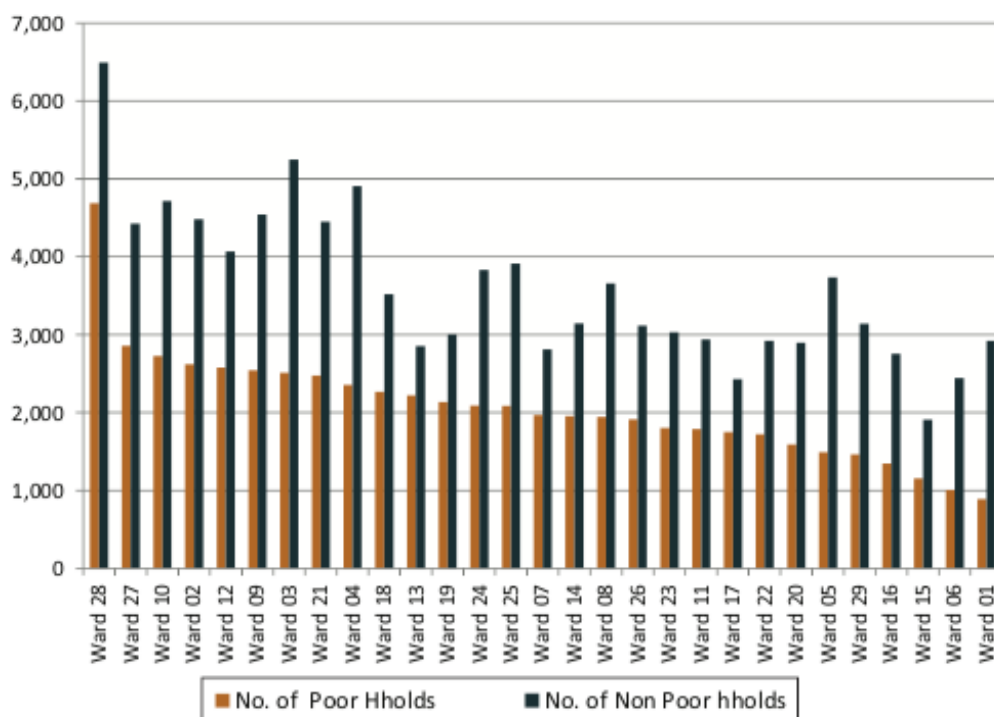
6.12.2 Table 21 below shows that the majority of Bulawayo households (83.1%) survive on less than \$500 dollars a month. This result shows that the majority of Bulawayo citizens live in extreme poverty despite their ability to afford to buy enough food to keep the household going (77% of the respondents could buy enough food for the month). Approximately 20% of the respondents were lingering close to starvation as shown by an income that was below \$150/month which was dangerously close to the FPL of Bulawayo of \$149.08. FGD participants reiterated the primary data findings explaining that poverty was rife especially within the high density suburbs and particularly amongst the elderly and widowed. The high poverty levels were known and they rooted them in the non performing economy and de-industrialisation of Bulawayo.

Table: 21: Income levels in Bulawayo

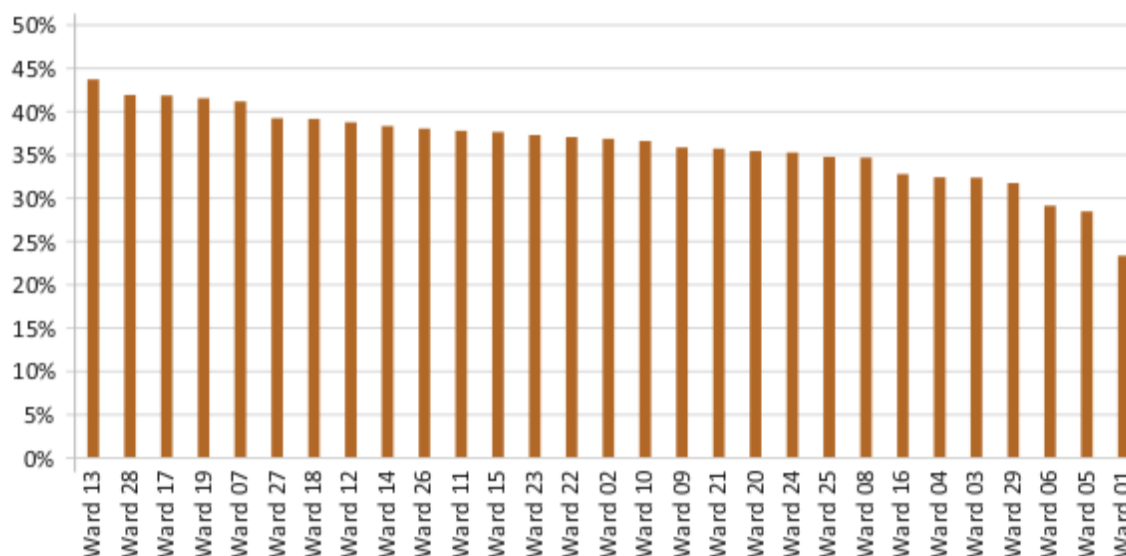
Combined monthly income	% of population	Cumulative%
>\$500/month	16.9%	16.9%
\$400<\$500/month	26.9%	43.8%
\$300<\$400/month	13.5%	57.3%
\$150<\$300/month	20.4%	77.7%
<\$150	20.3%	100%
Valid N (listwise)	455	

Source: Job Jika & Associates

6.12.3 The study went further to explain the distribution of poverty in Bulawayo according to the wards of the city. For this information, information from the Zimbabwe poverty atlas of 2015 was sought. Figures 9 & 10 show the distributions of poverty and non-poor households and poverty in general according to the wards of Bulawayo.

Figure 9: Distribution of poor and non-poor households in Bulawayo by ward

Source: Zimbabwe poverty atlas (2015)

Figure 10: Poverty prevalence in Bulawayo by ward

Source: Zimbabwe poverty atlas (2015)

6.12.4 Figures 9 & 10 show that poor households and poverty are most prevalent in wards 13, 28, 17, 19 and 07. These wards are predominantly high-density areas with either high levels of new settlements, the presence of long-standing settlements or areas in the periphery of the city.

6.12.5 Demand for social protection has increased sharply over the last decade due to the general socio-economic challenges in the economy. Households have been exposed to recurring emergencies necessitated by the effects of climatic change (floods and droughts), economic under – performance, increase in orphanage and other social hardships due to the effects of HIV and AIDS scourge. In an effort to address these challenges the Zimbabwe Interim Poverty Reduction Strategy Paper (I – PRSP) 2016 – 2018 was formulated which is an indication of the high priority that Government places on poverty alleviation. The Poverty Reduction Strategies are clustered under seven pillars which anchor the I – PRSP. Currently in an effort to address poverty issues, Government has in place a number of social protection and safety net schemes which benefit various sections of the society which include the elderly, orphans, destitutes, children and drought affected. In Bulawayo the following poverty alleviation programmes are being provided:

- i. Supplementary feeding programme meant for primary school children and other vulnerable groups;
- ii. Monthly food rations for destitutes
- iii. Old age pension scheme
- iv. Drought relief program

- v. Harmonized social cash transfer payments
- vi. Basic Education Assistance Module
- vii. Health assistance

6.5.6 In addition to the above Government's initiatives and programmes, it is a challenge for the Master Plan to identify long term and sustainable strategies for poverty alleviation in Bulawayo during the time frame of the plan.

6.13 ECONOMIC VIABILITY ASSESSMENT OF THE REGION

6.13.1 Sub Regional Growth patterns & Investment Prospects and Constraints

6.13.1.1 There has been a change in the settlement pattern since the attainment of independence with a growing concentration of population and the establishment of some growth points, attainment of town status by other settlements and growth of already established urban centres. The concentration clusters include Esigodini, Kezi, Lupane, Plumtree, Victoria Falls, Beitbridge, Gwanda and Gweru catchment areas.

6.13.1.2 Bulawayo is the major settlement in the South Western region and it has enjoyed growth over the years because of its role as the second largest urban settlement. This has accorded it a wide range of commercial, educational, health and industrial development that offer better employment opportunities. Added to these is its declaration as a special economic zone, its strategic locational advantage and endowment of natural resources.

Accessibility: national, regional and international

6.13.2.1 Investors consider accessibility to markets and raw material for production before setting up business. The strategic location of Bulawayo provides a basis for investment and growth in terms of access to local, regional as well international markets and services. Settlements such as Bulawayo which are located along major transport nodes are attractive to people and investors. The city is nodal as it is linked to all the major towns and cities by road from Plumtree to Mutare, Beitbridge to Victoria falls and to Harare. Other links connect Bulawayo to other major centres such as Nkayi, Kezi, Tsholotsho etc. The established communications have strengthened the centres regional and national relationships with Beitbridge, Gwanda, Plumtree, Lupane, Victoria Falls and other major national urban centres and the neighbouring countries such as Zambia, Botswana, Republic of South Africa and potential economic giants such as Angola and the Democratic Republic of Congo.

6.13.2.2 A railway link runs parallel to most of the major roads and provides a link to South Africa, Botswana and Zambia. The construction of the Bulawayo – Beitbridge line has improved movement between Zimbabwe and South Africa which is a major trading

partner. The main potential of the rail network is its use of freight cargo for heavy industrial raw material and finished products. The city has an international airport but currently there are limited flights which locally link up with Victoria Falls and Harare and regionally with South Africa. As a result the airport is currently underutilized.

Service and Utilities

6.13.3.1 Services and utilities are important to any potential investor. Good physical infrastructure such as roads and electricity exist in the city. The problem faced by the city is limited funding for maintenance of the road network and other infrastructural services. Another important input is water. The Local Authority has adequate, reliable and clean water supplies and efforts are underway to connect and develop other sources to augment supplies to meet the ever growing demands of the city. The City is responsible for its water supplies.

6.13.3.2 Reliable power supplies are essential to sustain industrial and commercial activities. Zimbabwe Electricity Transmission and Distribution Company (ZETDC) is responsible for the supply of electricity but this is also being complemented by a thermal power station in the city. Power Supply from ZETDC and ZPC is adequate to meet the needs of the city.

6.13.3.3 The liberalization of the telecommunication sector has facilitated the entry by other players. Though the fixed line networks are being undertaken by Tel one, three private providers namely Net One, Buddie and Telecel have been licenced to operate throughout the country. This has also resulted in an increase in internet cafes. The only challenge is that like all utility services, telecommunication charges are not competitive. However, this is expected to change in future as more players come into the scene due to privatization.

Land and land based resources

6.13.4.1 There is need to improve the servicing of land for commercial, industrial and residential purposes. A conducive investment climate/environment is important to promote foreign and local investors through the provision of serviced commercial and industrial stands at an affordable price, affordable utilities such as power, water, telecommunication as well as good social services such as health, education, recreation. Servicing of industrial and commercial plots has been on going but at a very low rate compared to housing but there has been some challenges as demand has continued to outstrip supply due to a shortage of funding. Land acquisition and servicing is falling behind.

6.13.4.2 The long waiting lists and turn around time for allocation of stands makes it difficult to plan for business since land acquisition is uncertain. In addition, land speculation exists in the peri urban areas of Bulawayo.

6.13.4.3 The importance of the informal sector for employment creation and poverty alleviation is appreciated. The operators are accommodated at Lobengula mall, bus rank and along 5th avenue. The majority of informal sector operators will be accommodated at the proposed Egodini Mall as stalls for the operators will be set up.

6.13.4.4 Tourism is a sector with a lot of potential in the city and the urban periphery. Apart of scenic based tourism the sector could diversify the tourism product to ecological, and cultural tourism. Old Bulawayo is a national heritage which is accorded special protection. Other sites which are of cultural or historical value may be identified for the benefit of the city.

Capital

6.13.5.1 Most Government departments are experiencing problems in securing funding for capital projects. Centralisation of funds in Harare has resulted in delays or even worse, failure to implement some projects. The lack of funds has also been a challenge in the servicing of commercial and industrial stands. Lack of finance to assist small businesses and highly subsidized loans to provide equity capital to citizens and joint ventures between citizens and foreign investors is a challenge being experienced in Bulawayo and nationally.

Unemployment and Employment creation

6.13.6.1 The labour force in Bulawayo is increasing more rapidly than the number of formal and informal sector jobs created or available. The bulk of the unemployed are school leavers and some drop outs (out of school youth). The Youth constitute a large percentage of the population and is hard hit by unemployment problems. In addition the transition rate to institutions of higher learning is small resulting in a serious problem of unemployment affecting the out of school youths without any employable skills. There is need to encourage young people to engage in productive and employment response activities through education with production efforts. The main objective of the new educational curriculum is to address some of the existing challenges as there is more focus on potentials of students – academic and practical orientation. The main focus is transition from an agro based economy to an industrial economy since agriculture is unreliable and difficult to sustain. There is need to design programs and projects that will take account of increasing unemployment.

6.13.6.2 A major comparative advantage of Bulawayo which has boosted its economic viability has been the construction of NUST and other tertiary institutions such as the Catholic University and operation of Lupane State University and Solusi University from Bulawayo. These in addition to existing tertiary institutions such as the Bulawayo Polytechnic, Hillside teachers and United College have meant an exponential growth in

Bulawayo's population. Employment opportunities have increased and businesses with benefit from the population.

6.13.7 IMPLICATIONS OF THE POPULATION CHARACTERISTICS AND ECONOMIC INDICATORS FOR DEVELOPMENT IN THE STUDY AREA

- 6.13.7.1 From the presentations and analysis in the preceding sections of the chapter it is clear that the Study Area has a very young population in terms of composition. The implication that goes with this kind of situation is that the focus of the plan should be amongst others, to meet the requirements for the provision of health, recreational and educational facilities as well as the creation of employment opportunities in the Study area. Another characteristic of the population which has implications on unemployment and poverty levels is the proportion of the population which is economically inactive. Of the total labour force, 28% is in unemployment. With such a high unemployment rate, devising of strategies for employment creation in the city should be accorded a high priority in the plan.
- 6.13.7.2 Though the population of Bulawayo has been on a low growth rate in the past two decades, the rate of physical and economic developments have not matched this growth in population. The challenge here will be, how to accelerate physical developments in an orderly fashion as well as the provision of adequate infrastructure services to act as pull factors in order to stimulate economic growth through the attraction of investment. With will the potential at Bulawayo's disposal this could be realized.
- 6.13.7.3 The poverty rates and levels as measured by the unemployment rate and destitution also have implications on economic growth and development generally. With such high rates of unemployment, it means the dependency on family members and government is high which in turn means low productivity in their economies. All the above have the effect of slowing the rate of economic growth and development of the city if not properly addressed.

CHAPTER 7

HOUSING

7.1 INTRODUCTION

- 7.1.1 The housing market extends beyond the existing boundaries of Bulawayo in this study. However, the market area for housing in this chapter is limited to the Municipal area. Information on the total number of dwelling units was collected through primary and secondary sources but this was also complimented by socio-economic surveys and housing occupancy surveys which were undertaken with the assistance of assistance of research assistants.
- 7.1.2 This chapter presents housing as an integral part of the overall economic and social structure of Zimbabwe and Bulawayo in particular. The Government of Zimbabwe accords the housing sector a high priority in recognition of the fact that adequate shelter is a basic human need. Housing is considered a productive sector which contributes directly to the socio economic development of the society. The development and delivery of housing in Bulawayo are a combined effort of both the public and private sector.

7.2 NATIONAL HOUSING POLICY

- 7.2.1 The National Housing Policy of 2012 provides the guiding principles, objectives and strategies for housing delivery in Zimbabwe. Basically, the housing policy sets out in clear terms, government's long term goal of ensuring that everyone has access to decent shelter. It further seeks to facilitate the construction of new urban housing for all income levels. The National Housing Policy appeals to all stakeholders and interest groups in the housing sector by clearly outlining the role of each actor and formulation of relevant policies and strategies. The policy coordinates housing sector activities in an effort to address the needs and interests of various stakeholders for maximum performance. It deliberately promotes pro poor housing development strategies that are anchored on the participatory approach and maximum mobilization of beneficiaries' own resources.
- 7.2.2 The Housing Policy is based on the following principles:
- i. Reinforcement of Government's role as a facilitator in the housing delivery process through the formulation of enabling policies and strategies and the adoption of appropriate technology. Government will however, when necessary, be obliged to intervene and provide safety nets for the vulnerable groups in society;

- ii. Defining the roles of each actor and interest group in the housing sector and formulating relevant enabling policies and strategies;
- iii. The building of an extensive network of housing providers such as building societies, pensions and provident funds, private land developers and employers and
- iv. Promotion of pro-poor housing development strategies that are anchored on the participatory approach and maximum mobilization of beneficiaries' own resources.

7.2.3 The revised National Housing Policy among other things recommends:

- i) The establishment of a reliable and sustainable housing finance system for effective housing delivery;
- ii) Encouraging private sector participation in housing development ensuring that this is regulated to reduce risks to investors and home seekers;
- iii) Facilitating development by providing off-site infrastructure. Inadequate offsite infrastructure is seen as the major impediment to housing development, to the extent that most local authorities are not able to establish new settlements as this would irreversibly strain existing bulk infrastructure and
- iv) Supporting government efforts to expedite land acquisition, compensation and transparent administration for land earmarked for urban use.

7.3 INSTITUTIONAL FRAMEWORK FOR HOUSING DELIVERY

7.3.1 The institutional framework for housing delivery in Zimbabwe constitutes of structures and institutions which have been created to focus on various aspects of housing development categories and the housing sector in general in all parts of the country. These include:

7.3.2 **The Ministry of Local Government, Public Works and National Housing (MLGPW & NH)** – This Ministry is the lead sector agency in terms of sector policy formulation, implementation, monitoring and review. The mandate of the Ministry is carried out through the following Departments:

- i. **Department of Housing** – The Department is responsible for the formulation of the housing policy as well as the implementation of specific housing programs and strategies. It provides overall leadership, planning and policy directions on housing schemes in the country. It also performs estate management functions in respect of

government pool housing and also provides funding for provincial and district housing schemes for public servants.

- ii. **Department of Physical Planning** – The department is responsible for national spatial planning. As such, it is the custodian of settlement development standards.
- 7.3.3 **The Ministry of Finance and Economic Development** – The Ministry allocates public sector resource provision for housing and regulates activities of financial institutions involved in housing. The Ministry’s fiscal policy formulation, implementation, monitoring and review functions and the broader macroeconomic oversight are critical to development and management of housing.
- 7.3.4 **Ministry of Environment, Wildlife and Tourism** - The Ministry oversees environmental stewardship through, among others Environmental Impact Assessments (EIAs). The Ministry’s oversight in terms of environmental stewardship is by ensuring that EIAs and EMPs are prepared and reviewed for residential layouts prior to housing developments being undertaken.
- 7.3.5 **Ministry of Health and Child Care** – The Ministry administers the Public Health Act among other pieces of legislation which have a bearing on human settlement standards and administration.
- 7.3.6 **The Ministry of Justice** – The Ministry is the custodian of the deeds registry functions including administration of the property conveyance system in the country. These are critical functions in terms of protecting property rights and security of tenure, which are critical for housing sector investors both foreign and local.
- 7.3.7 **Ministry of Lands and Rural Resettlement** – Ministry responsible for lands, which is the Government’s principal land acquisition authority. It hosts the Office of the Surveyor General and is responsible for carrying out cadastral surveys of detailed layouts on state land. It also manages key land information systems and administers rural state land.
- 7.3.8 In addition to sector Ministries, there are also key financial and non-financial sectors that Government deploys to facilitate sector work. Examples of financial institutions include the Infrastructure Development Bank of Zimbabwe (IDBZ) and the National Housing Fund (NHF).

7.4 BULAWAYO CITY COUNCIL

The Local authority participates in all key steps of housing development and management as direct providers of housing, providers of key services, regulators of the activities of private developers and as partners of state, private and civil society actors. The city council’s role could be through the provision of serviced land, allocation of

virgin land to private developers to service and allocate to those on the waiting lists or entering into partnership with private developers. The Local Authority performs estate management functions in respect of local authority pool housing.

7.4.1 The main functions of Bulawayo City Council in housing provision include:

- Land use planning,
- Land allocation and administration,
- On and offsite servicing,
- Plan approval for superstructures
- Construction supervision,
- Certification of completed developments,
- Technical advise to community groups

7.5 NATIONAL AND INTERNATIONAL DEVELOPMENT ORGANIZATIONS

7.5.1 Zimbabwe has a number of active non-state actors involved in the housing sector. Some of the most active ones are:

- Dialogue on Shelter for the Homeless People in Zimbabwe Trust (Dialogue),
- The Zimbabwe Homeless People's Federation (ZHPF),
- The Zimbabwe National Association of Housing Cooperatives (ZINAHCO),
- Housing People of Zimbabwe (HPZ),
- Civic Forum on Housing,
- Non-ZINAHCO and non-ZHPF community-based organizations (CBOs) involved with housing cooperatives and other social groups, and
- ZIMHABITAT, which is a platform for stakeholder interaction on housing matters in Zimbabwe established to foster participatory advancement of the national Habitat agenda.

7.5.2 In addition, there are some international development organizations which have had a history of supporting housing Development programs in Zimbabwe. The main organizations in this category include:

- United Nations organizations led by UN Habitat,
- Bilateral agencies like SIDA, CIDA and USAID,
- Multilateral agencies like the World Bank (WB) and the African Development Bank (ADB), and
- International non-UN NGOs and Foundations e.g. the Bill and Melinda Gates Foundation.

7.6 PRIVATE SECTOR

Private sector developers play an important role in housing delivery especially in urban areas. These have been mainly Zimbabwean land development companies. To date the following private developers have played a large role in the provision of housing in the city:

- Pension Funds and Building Societies such as Beverly-CBZ Building Society, Zimbabwe National Building Society-FBC Building Society, Founders-Intermarket-ZB Building Society, Infrastructure Development Bank of Zimbabwe (IDBZ) and Central African Building Society (CABS).
 - Finance Houses such as Old Mutual, ZIMRE and Home Link
 - Land development companies such as, APG Glendenning, Hawkflight, Mehluli Khumalo Land Developers, Aggregate properties, GG construction, Sypho Land developers, Nkiwane Land Developers, Hlalo Land Developers, Hopeville – Sondelani Land Developers and JRG have been instrumental in the provision of land and housing development.
- ii) Private companies involved in company-housing schemes for their employees. Mining companies have been in the lead in terms of developing and managing sizeable estates.
- iii) Land owners in urban, peri-urban and rural areas.

7.7 GOVERNMENT MINISTRIES AND DEPARTMENTS

The Zimbabwe Defence Force (ZDF), Zimbabwe Prisons and Correctional Services (ZPCS), Zimbabwe Republic Police (ZRP) and the Ministry of Primary and Secondary Education (MoPSE) and well as the Ministry of Higher and Tertiary Education (MoHTE) provide housing for some of their employees. In principle, all institutions should provide housing for their employees. Generally, housing development is mainly being undertaken by individuals in both urban and rural areas.

7.8 PRIVATE SECTOR INVOLVEMENT IN HOUSING DELIVERY

- 7.8.1 The demand for new residential accommodation in the city is likely to be met by the private sector. The private sector is taken to consist of private companies, building societies, banks, donor agencies and individual developers. The increased participation of the private sector is in line with the provision of the National Housing Policy as well as a withdrawal by other major players such as the Ministry of Local Government Public Works and National Housing and the Local Authority who are no longer actively involved due to the tight monetary conditions prevailing in the country.

7.8.2 In Bulawayo the involvement of the private sector in housing development as well as land servicing as part of the public private partnership (PPP) has been increasing since year 2000. Servicing of residential stands and the development of housing units has been undertaken in the high density residential areas through schemes such as the Glenkara Housing scheme in Nkulumane and Emganwini and other schemes in Pumula South, Pelandaba West and Cowdray Park. Other housing schemes in the medium and low density residential areas has been through servicing of residential stands in Mahatshula East, Parklands, Mhlangeni and Highmount, Dlamini Township, Mqhabuko Heights, Buena Vista, Burnside and Selbourne Park as well as the provision of town houses. However, the major challenge being experienced with regards to serving of housing schemes by the private sector is lack of finance to ensure that servicing is in line with the development conditions of the subdivision permit. Table 22 below shows private sector involvement in housing development in the city.

Table 22: Private Sector Housing Development in the City

Name of Contractor	Location	Number of Stands	Year of Allocation
BOPSE	Pumula South	381	2002
HABEK	Pumula South	253	2002
NSSA	Pumula South	700	2006
CABS	Pumula South 3	98	2006
PMTP	Pumula South 3	98	2006
CABS	Nkulumane 1	750	2006
Glenkara Homes	Pelandaba	1 000 (Phase 1 – 510, Phase 2 – 490)	2009
ZIGEU	Cowdray Park	550	2002
Alpha Construction	Cowdray Park	536	2002
Hawkflight	Cowdray Park 3	275	2002
GG Hardware	Cowdray park 3	116	2004
Ministry of Local Government	Cowdray Park	500	2004
Monologue	Cowdray Park 3	126	2004
Standard Products	Cowdray Park	377	2005
ZIMTA	Cowdray Park	100	2005
Zimbabwe Homeless People's Federation	Cowdray Park	100	2006
Hlalani Kuhle	Cowdray Park	7 000	2005
BCC	Cowdray Park	500	2004
PMT	Cowdray Park 3	1 000	2002
Aggregate Properties	Mahatshula	200	2004/2008

JAROOTs	Mahatshula	200	2008
Glass and Allied Products	Selbourne Park	76	2006
ZIMRE Properties	Parklands	135	2008
Hawkflight	Pelandaba West	185	2004
Homelink	Parklands	137	
Rent a Roof	Cowdray Park	2 000	2014

Source: BCC & Consultants Surveys

- 7.8.3 In Zimbabwe, the private individual is the greatest provider of residential housing. When the economy was buoyant some private individuals developed housing for the prevailing market situation. The houses were elaborately designed and built attracting high rentals. Due to a down turn in economic growth, affordability has become a major challenge and rentals have taken a nose dive and in some instances houses are repossessed by financial institutions because of the inability to service the mortgage. As a result, at the moment housing is not a lucrative sector for investment due to affordability challenges.

7.9 HOUSING SECTOR PLAN AND HOUSING DEVELOPMENT STRATEGY

- 7.9.1 Despite having a Housing Policy at national governmental level, the city does not have its own Housing Policy and a Housing Development Strategy. The latter two are critical towards achieving a structured approach in housing planning, financing, housing development and delivery. This is critical in view of the diversified housing delivery sector with several role-players in housing delivery and towards ensuring a guided approach to housing provision and ensuring that all fundamental requisites are adhered to through an enabling, facilitative environment.

7.10 RESIDENTIAL SPATIAL STRUCTURE

- 7.10.1 The city, being a colonial city and now in post-colonial era still displays the hallmarks of a colonial, spatially segregated residential structure with a clearly discernible polarisation between the western high density (predominantly black low income) and the eastern lower density (formerly white and now mixed race middle to higher income) areas. The trend that has been perpetuated by successive planning efforts has been to reinforce the colonial spatial structure. It is only through dynamism in planning that spatial development growth trends can be directed differently and towards achieving the principles of spatial equity and integration.

7.11 EXISTING HOUSING STOCK

7.11.1 The 2012 population and housing census shows that Bulawayo had a total of 165 345 dwelling units and 167 092 households and a population of 655 675 which translates to an average household size of 3.9 persons per household. In 2002, total of 165 123 dwelling units were recorded, showing that there has been a 0.13% increase in the number of dwelling units over a 10 year period assuming that each household has one housing unit. The housing stock in Bulawayo is characterised by the following three types of dwelling units;

- Traditional Dwelling Units– these comprise of buildings which are made of pole and dagga/bricks with thatched roofs found in the old style family settlement.
- Modern houses – these are standard houses which are reflective of higher Income ownership. They are usually characterised by services such as water supply and electricity. They are constructed with cement blocks and in most cases have corrugates or asbestos roofing sheets or tiles and are of varying sizes and often more than one room. These types of houses are usually constructed by people who have the means.
- Institutional Housing – this constitutes of staff housing units which house both central and local government housing officials. These housing units are usually of good standard with brick walls and iron or tile roof with infrastructure service provision. The housing units are where possible located adjacent to the institutions they serve such as local authority facilities, schools, police station and prison among others.

7.11.2 As at October 2018 there were approximately 135 110 dwelling units in the city. High density housing accounted for about 80% of the total housing stock in Bulawayo. There has been a few developments of low and medium density residential areas during the expired plan period. In the city centre there has been very little development of residential accommodation since the 1970s. In fact there has been a decline in residential accommodation in the city as most of the residential flats in the city have been undergoing a change of use from residential to office blocks, guest houses and commercial undertakings.

7.12 URBAN RENEWAL

7.12.1 Since the early 1960s Bulawayo City Council has made tremendous efforts towards urban renewal. A major clearance was undertaken at West Gate, a former low income European suburb which belonged to National Railways. The primary school which served the neighbourhood was converted to a training centre, now West Gate vocational and training college. In addition, efforts at rationalising developments were undertaken in the early 1980s for purposes of upgrading facilities such as toilets, roads and additional

rooms in Makokoba. The rationalisation process is still on going in Mabutweni and Iminyela today with more focus on the provision of toilet facilities. To date more than 300 houses have been provided with individual sanitation facilities. The Bulawayo City Council has also made some proposals to decommission Sidojiwe hostels from residential to industrial to cater for service industrial units as well as upgrading Burombo and Vundu hostels.

7.13 MODELS OF HOUSING DELIVERY AND ALTERNATIVE BUILDING TECHNOLOGIES

7.13.1 During the plan implementation period the city has over the years delivered housing through models which mainly through the public private partnership model. These constituted joint ventures with the private sector. The models ranged from Turnkey Housing project where the Local Authority would identify the land, design the layout, allocate to the developer for servicing and construction of complete houses. The other model entailed the Local Authority entering into a joint venture with a private contractor to service land on their behalf and the Local Authority allocating stands to beneficiaries on the waiting list. The other model which was adopted entailed the Local Authority identifying virgin land, designing a layout and allocating to a developer to service and allocate to people on the waiting list. It is important to note that the most common model of housing delivery during the plan period was servicing and eventually allocation to people on the waiting list.

7.14 ALTERNATIVE BUILDING TECHNOLOGIES

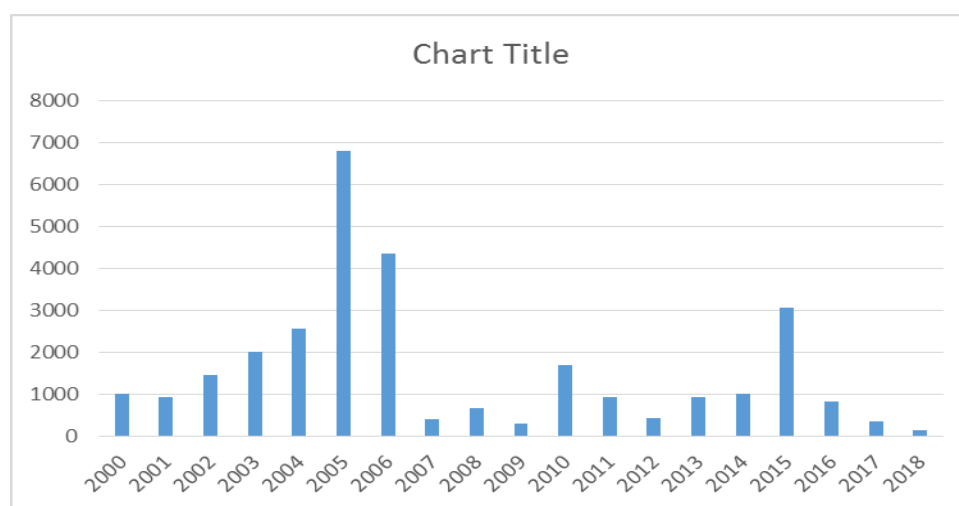
7.14.1 The housing environment, like the general building sector has undergone radical change through the adoption of alternative building technologies which also incorporate green building techniques. The city has not fully adapted these technologies which come with huge savings in terms of financial costs and environmental benefits.

7.15 DWELLING CONSTRUCTION

7.15.1 The supply of residential houses is clearly lagging behind housing demand and need as is the case in all urban centres in Zimbabwe. The number of completed housing units constructed in the city has been declining over the years. The current low levels of residential development may be attributed to a number of factors such as tight monetary conditions prevailing on the market, lack of funding on the part of public agencies, lack of serviced land, high interest rates and poverty on the part of potential householders. Poverty on the part of potential householders has been augmented by

the unavailability of mortgage finance as well as high interest rates from banks and building societies. The rate of dwelling construction in Bulawayo from 2 000 to 2018 is shown in figure 11 below.

Figure 11: Number of dwellings constructed in Bulawayo since year 2000 to 2018



Source: Bulawayo City Council

7.15.2 The rate of house construction is very low. In an effort to establish housing needs in the city a comparison is made by comparing the number of housing units with the number of separate households. However, this does not provide a means of knowing what kind of housing is needed but gives an indication of the overall numbers.

Table 23: Housing needs in Bulawayo as at October 2018

Estimated Population	Estimated Number of Households	Estimated number of Dwelling Units	Existing Housing Backlog as at 2018
750 000	184 000	135 110	48 890

Source: ZimStats

7.15.3 The table above shows that on average about 1.5 households share every dwelling unit. In order to provide accommodation for every household in the city, the local authority will have to build over 50% of the existing housing stock. However, not every household can afford a house or desires a separate dwelling as some prefer to rent.

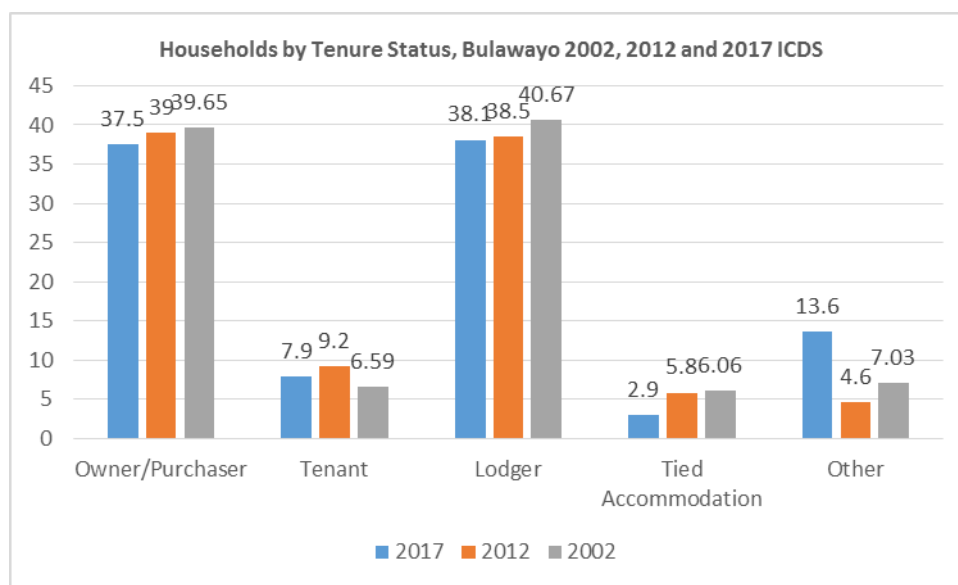
7.15.4 According to the 2012 housing and population census, the households found within Bulawayo acquire housing units through several ways as presented in table 24 below.

The purchased (owner occupied) constituted the dominant mode of acquiring residential accommodation within the city and accounts for 39 percent of the total number of housing units. Some 38.5% of households rent private houses from various individuals and companies. The information shows that Bulawayo's owner-occupied housing stood at 39.7 percent in 2017 having grown from 37.5 percent in 2002 and 39 percent in 2012. It is however, noticeable that lodging is also rising in the city while tenancy is going down. A situation where lodging is almost equal to owner-occupied housing poses a huge challenge for the city in terms of provision of housing to its citizens. Tenants constitute the 3rd highest category of housing provision in the city. About 5.8% of the acquired housing units by means of rental remittances to the government, local authority or job-related provisions by private companies and other stakeholders. The least category of respondents did not indicate how they acquired housing in the city.

Table 24: Acquisition Methods of Housing Units in Bulawayo (2002 & 2012)

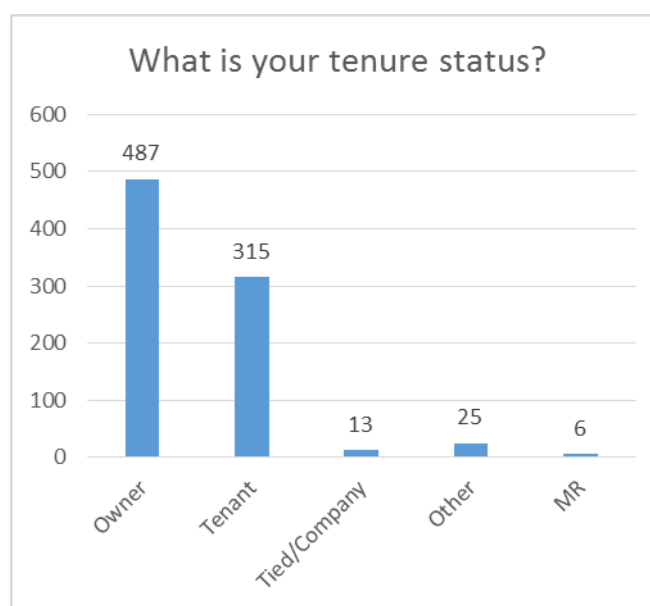
Housing Type	Method of Acquisition (2002)	Method of Acquisition (2012)	Percentage (2002)	Percentage (2012)
Purchased (Owner occupied)	65 471	64 485	39.65	39
Tenant	10 881	15 212	6.59	9.2
Tied Accommodation (Institutional)	10 007	9 590	6.06	5.8
Lodger	67 156	63 658	40.67	38.5
Other	11 608	7 606	7.03	4.6
Missing	0	4 795	0	2.9
Total	165 123	165 345	100	100.0

Source: ZIMSTATS Housing and Population Census 2002 & 2012

Figure 12: Households by tenure status in 2002, 2012 and 2017.

Source: Zim Stats

7.15.5 Household surveys which were undertaken in May 2018 also confirmed that the majority of people in the city are staying in their houses followed by tenants. This is shown in figure 13 below.

Figure 13: Tenure Status in the City

Source: Job Jika & Associates

7.16 HOUSING CHARACTERISTICS AND CONDITIONS

7.16.1 The 2012 Housing and Population census recorded seven (7) different types of housing units in Bulawayo as reflected in Table 25 below. The housing market in Bulawayo is dominated by detached accommodation as about 60% of the 165 345 households live in such accommodation. Other prevalent types of dwelling units in Bulawayo are semi detached and flats/town houses which constitute about 22 percent, flats/town houses 11 percent. Semi detached Flats are located in the high and medium density residential areas while most sites for town house development are located in the high income low density suburbs of Khumalo, Parklands, Selborne Park and Barham Green. Shacks constitute 0.3% of the total number of housing units while the least category type of housing unit in the city falls within other types of housing units.

Table: 25 Types of Dwelling Units in Bulawayo 2002 & 2012

Type of Dwelling Unit	Number of Dwelling Units (2002)	Number of Dwelling Units (2012)	Percentage (%) 2002	Percentage (%) 2012
Traditional	710	992	0.43	0.6
Mixed	793	662	0.48	0.4
Detached	99 322	102 845	60.15	62.2
Semi – detached	42 288	37 707	25.61	22.2
Flat/townhouse	19 518	18 684	11.82	11.3
Shack	826	496	0.5	0.3
Other	1668	331	1.01	0.2
Missing	0	4 630	0	2.8
Total	165 123	165 345	100	100.0

Source: ZIMSTATS Housing and Population Census 2002 & 2012

7.16.2 The low percentage of traditional housing shows the transition by Bulawayo residents from the traditional way of building to a more modernized way of building structures. Most of the houses in Bulawayo have been constructed using modern building material, are self-built and functional.

7.16.3 Residential stands in Bulawayo are characterised by large plots, large stands, medium and small stands. Large plots constituting more than 1 ha and large stands are found mostly in the low density residential areas while smaller standard stands are found mostly in the high density residential areas. The large plots are those that were allocated in the “plot” area and were mainly for the farming community who were

engaged in various urban agricultural practices. Most of the areas where there were large plots have been subdivided into 1 hectare plots for residential development. The majority of the stands are in the high density residential areas being allocated by the Local Authority and private developers and average stand sizes are between 200m² and 300m². The reduced stand sizes were meant to achieve cost efficiency in the provision of infrastructure and to deliver more residential stands in the city.

7.16.4 The type of building material used for residential development is important for permanency, durability and quality of housing conditions as well the physical structure. According to the consultants' surveys, most of the housing units in the city exhibit better conditions in terms of building materials used and sanitary conditions than the traditional and mixed housing types. However, difficulty of servicing the newly established residential areas is presenting a challenge in terms of sanitary conditions in these areas. Using ZIMSTATS housing and population studies of 2012, it can be noted that 1.5 and 0.3% of the population used blair and pit latrines respectively.

7.16.5 From table 26 below it is evident that Bulawayo is supplied with potable water as the majority of households have piped water indoors (70.1%) and piped water outside (29.1%) their households stand limits. Some 0.2% of the households use water from communal taps while the other 0.2% use water from boreholes/wells. Households who use water from unknown water sources constitute 0.3% of the total households. The least category of households (0.3 %) in the city use water from communal taps and boreholes/wells. The table below further shows that the majority of households (92.7%) are using flush toilets, 3% use unknown water sources, 1.5% are use blair toilets and 1.3% do not have any form of toilet facility.

7.16.6 The non-availability of toilet facilities by some residents is a major cause for concern as they are likely to be causing open air defecation which is an environmental concern as well as a health risk to neighbourhoods where people do not have toilet facilities. 1.2% of the residents especially in the oldest residential neighbourhoods and other institutional facilities e.g. prison are still using communal toilet facilities. The least category of residents are using pit latrines. The least category of residents are using pit latrines. The blair and pit latrines are mainly found in the new residential areas such as Cowdray Park and Mbundane which have not been provided with conventional sewer. While housing is a basic need, it must come with other basic needs such as water, environmentally sustainable sanitation systems and modern sources of energy.

Table 26: Households access to Services in Bulawayo 2012

SOURCE OF WATER SUPPLY					ACCESS TO TOILET FACILITIES				
Source	No of H/holds (2002)	No of H/holds (2012)	% 2002	% 2012	Type	No of H/Holds (2002)	No of H/holds 2012	% (2002)	% (2012)
Piped water indoors	89 612	106 299	54.27	70.1	Flush	158 255	153 275	95.84	92.7

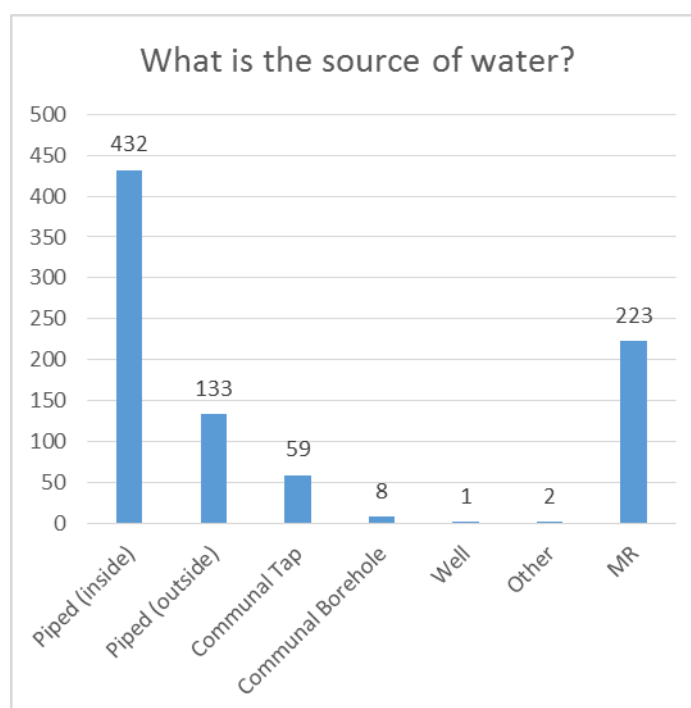
Piped water outdoors	71 713	47 547	43.43	29.1	Blair	1 222	2 480	0.74	1.5
Communal tape	2939	4 491	1.78	0.2	Pit	1 172	496	0.71	0.3
Well/Borehole protected	528	895	0.32	0.2	Communal	3 385	1 984	2.05	1.2
Well unprotected	248	172	0.15		None	1 073	2 150	0.65	1.3
River/Stream/Dam	17	9	0.01	-	Unknown	0	4 960	0	3
Other	66	722	0.04						
Unknown	0	5 210	0	0.3					
Total	165 122	165 345	100	100		165 124	165 345	100	100

Source: Zim Stats 2012

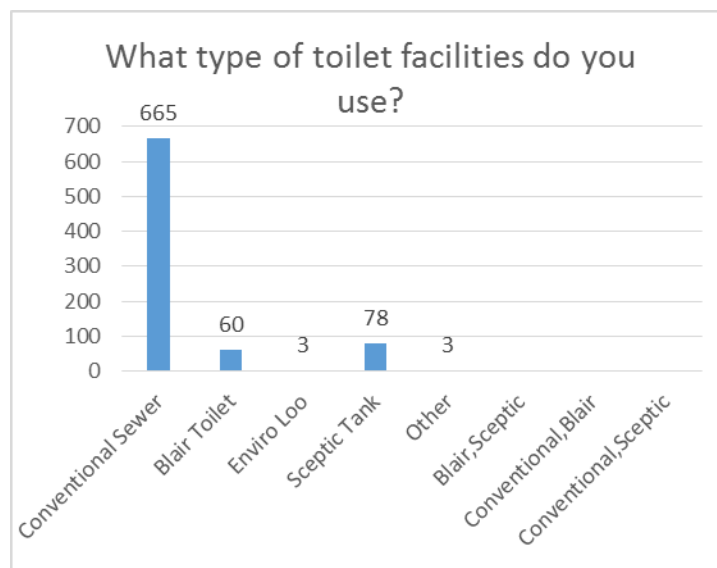
7.16.7 Households surveys also indicated that the majority of households have piped water inside, followed by piped water outside. However, there is an increase in the number of people accessing water from a communal tape. This may be attributed to developments in areas such as Cowdray Park where a large number of people are using such water sources. Figure 14 below, shows the results from the household surveys.

7.16.8 Household surveys also indicated that the majority of households use conventional sewer, followed by septic tanks though dominant in the low density residential areas. There has been an increase in the number of blair and environ loo toilets especially in the newly established residential neighbourhoods which are not fully serviced. Figure 15 below shows results from the household surveys.

Figure 14: Main sources of water in the city



Source: Job Jika & Associates

Figure 15: Main types of toilet facilities in the City

Source: Job Jika & Associates

7.16.8 Table 27 below depicts the sources of fuel/energy for cooking in Bulawayo. The major source of cooking in Bulawayo is electricity as 89.8% of the households are using electricity, while 6.1% use wood for cooking. Other sources of energy for lighting are paraffin (6.1%) and gas (0.4%). However, it should be noted that there has been an increase in the use of gas for cooking by households which has been attributed to the severe power cuts experienced in the past. In addition gas is also cheaper relative to electricity. As discussed in the environmental chapter, the use of wood as a means of cooking is a cause for concern as it has implications in terms of indiscriminate felling of trees, thus disturbing the ecological balance of the natural environment as unsustainable use of wood as a natural resource.

Table 27: Sources of cooking used by households

Source of Energy	Number of Households (2002)	Number of Households (2012)	Percentage (%) 2002	Percentage (%) 2012
Wood	6 555	26 620	3.97	6.1
Paraffin	4 243	1 488	2.57	0.9
Electricity	153 465	148 479	92.94	89.8

Gas	660	661	0.4	0.4
Coal	165	0	0.1	-
Other	0	0	0.02	-
Missing	0	4 464	0	2.7
Not Known	0	0	0.01	0
Total	165 123	165 345	100	100

Source: ZIMSTATS 2002 & 2012

7.16.9 The major sources of lighting in the city is electricity. However, some residents in the city who are residing in neighbourhoods which have not been electrified are using various forms of energy for lighting such as solar, paraffin, candles and gas as a source of lighting. However, the use of solar seems to be gaining prominence in the city especially in those parts of the city which are not electrified.

7.17 QUALITY AND STANDARDS OF RESIDENTIAL NEIGHBOURHOODS

7.17.1 The quality and standards of neighbourhoods in Bulawayo can be explained and analysed as composing of well-defined high (in the western areas) medium such as Mahatshula, Montrose and Barham green and low density housing such as Selborne Park, Hillside, High Mount and Burnside. However, the quality of residential units in the western areas has greatly improved. This is mainly because people have redeveloped some of the houses which they were initially allocated by the Municipality. In addition some of the residents are built and are building nice houses in the high density areas which may be compared to those in the medium and some high density residential areas. However, there are generally challenges being experienced by most of the residents in the maintenance of houses in the various neighbourhoods.

7.17.2 The houses in the various neighbourhoods are accessible in terms of road linkages. Infrastructural services and facilities are as per Urban Design standards but the challenge at the moment is actual provision of requisite services in areas such as Cowdray Park which are not fully serviced; there is lack of tarred roads, storm water drainage system as well as some social and physical infrastructure. This challenge is being experienced in some of the neighbourhoods where the Local Authority and some private developers have taken the lead in the provision of residential stands.

7.17.3 The older residential neighbourhoods are also experiencing a challenge in terms of maintenance of infrastructure such as roads as the life span of most of the roads has been exceeded such that pot holes are a common feature and in some instances the tarred road has been completely worn out. The designed open spaces are no longer being developed or maintained and most of them have been turned into dump sites

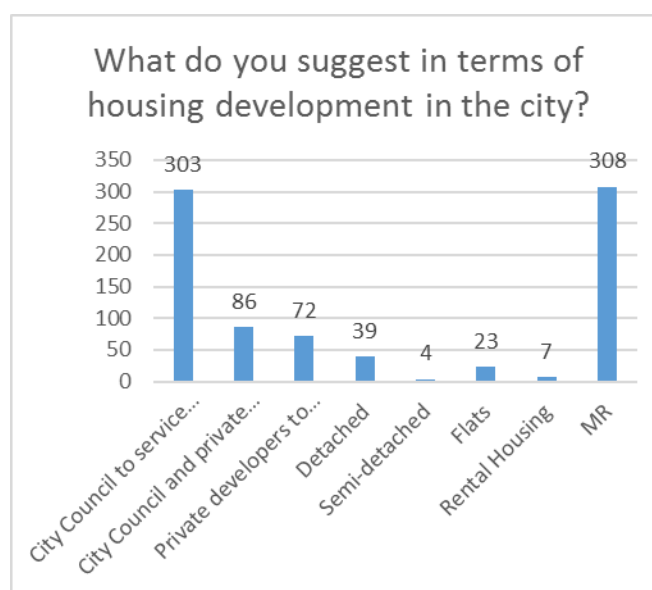
while in some instances there have been changes of land use to other land use and residential developments have been undertaken on such sites. In some instances where some infrastructure had been provided in some of the open spaces this has been vandalised. The residential environment has been provided with a variety of land use zonings which serve them with a high degree of compatibility and interdependence.

7.18 HOUSING BACKLOG

7.18.1 There is a demand for new housing to cater for the increasing population. The demand for additional new housing is usually though imperfectly expressed through the housing waiting list. As at May 2018 the Bulawayo housing waiting list was at 115 000. This is an increase of about 454% from the 1998 figure which was 25 356.

7.18.2 This increase in the number of people on the waiting list may be attributed to a failure of the current strategies to provide residential stands or housing in the city. Despite the existence of a housing waiting list, current allocation of residential stands is dependent on one registering to be on the waiting list as one's ability to pay for stands in the various housing schemes which are being offered by the City Council or private developers. Results from the household surveys revealed that the majority of the respondents indicated that housing strategies which were adopted after independence where a Local Authority would service an area prior to development or where the Local Authority would enter into partnership with a private developer should be adopted in the provision of housing. The least category of respondents indicated rental housing as a solution to the provision of housing in the city. The results are shown in figure 16 below.

Figure 16: Suggested modes of housing delivery in the city



Source: Job Jika & Associates

- 7.18.3 Most of the housing schemes which have been implemented by the municipality or the private sector during the course of implementing the operative Master Plan, such as Cowdray Park, Magwegwe North, Pumula South, Pelandaba West, High Mount, Mahatshula North, Mahatshula East and Emhlangeni have not adequately catered for high income earners. This may be attributed to a large market for high density housing as the majority of the people on the waiting list are in that category. There is need for monetary policies to be reviewed, interest rates reduced so that local authorities and individuals may borrow money to service and people to build if ever low income earners are to own houses.

7.19 HOUSING LAND SUPPLY

- 7.19.1 Currently there are approximately 25 150 residential stands, either under construction or planned for development principally in Cowdray Park, Pumula South, Rangemore, Magwegwe North, Remainder of Emganwini Phases 1 - IV, Emhlangeni, Highmount, Killarney East, Norwood Tracks Phase 1 and 2 In addition there is approximately 46.22 hectares which has been set aside for future residential development especially detached housing, town houses and residential flats. Land available for development has been reserved by the Local Authority but this may be allocated to some private sector players for servicing and allocation to people on the waiting list.

7.20 THE SQUATTER/INFORMAL HOUSING SITUATION IN BULAWAYO

- 7.20.1 Bulawayo does not have a serious informal settlement problem. Surveys undertaken have revealed that squatting exists at Cabatsha, Trenance, Ngozi Mine and Killarney. The City has a minimum squatter population estimated at 3 000 people and most of them are local citizens while others have migrated from other areas in the country. The emergence of squatters in the city may be attributed to a breakdown of extended family ties, the prevailing economic situation, rural to urban migration and housing shortages. The City Council has programmes to clear all areas occupied illegally and relocating them on the edge of the city in the Mazwi/Hyde park areas.

CHAPTER 8

EDUCATIONAL FACILITIES

8.1 INTRODUCTION

- 8.1.1 The development of the city hinges on and is intertwined with the level of education of its residents. It is therefore essential that this master plan puts in place measures and interventions to strengthen the education sector in the city in the short, medium to long term.
- 8.1.2 The study identifies the present and future educational facility needs of the city. It analyses the spatial distribution of facilities taking into account the hierarchical ordering of educational facilities. This plan explores the capacity of existing institutions, current and projected student enrolments, adequacy of school facilities and infrastructure within the context of attaining the goal having an educated citizenry for the progressive city development into the future. The study also analyses the future needs of the educational sector in the city and makes recommendations as part of the city's development vision. In the end, it is envisaged that the study will lay the basis for a capital investment program for education in the city into the future.

8.2 THE ZIMBABWEAN CONSTITUTION & EDUCATION ACT

- 8.2.1 The constitution of Zimbabwe and the Education Act and the Education Act Chapter 25:04 are the guiding frameworks regarding in the provision of education in Zimbabwe. According to the Constitution of Zimbabwe Amendment (No. 20) Act 2013 every citizen and permanent resident of Zimbabwe has a right to (a) basic state funded education, including adult basic education and further education which the state, through reasonable legislative and other measures must make progressively available and accessible. To this end, the above aim at ensuring that the Government puts in place an education and training strategy that recognises people as a major national resource and capable of giving them an educational system necessary for national development. The Constitution and Education Act recognises education as a fundamental human right. The constitutional provision and the Education Act are hinged on the following principles:
- i. Good access to education for all and equity in the provision of education;
 - ii. Effective preparation of students for life in the future and the needs of the economy;
 - iii. Development of training that is responsive and relevant to the needs of the economy;

iv. Improvement of the quality of the education system;

v. Enhancement of the performance and status of the teaching profession;

vi. Effective management of the education system;

8.2.2 The present educational system encompasses pre - primary education, primary education, secondary education, vocational and technical training, tertiary education, out of school education (non - formal) and special education. Pre – primary and secondary education is divided into 7 + 4 + 2 tier structure system and forms basic education programme. This relates to 7 years of primary education, 4 years of Ordinary Level education and 2 years of Advanced Level education.

8.2.3 Primary and Ordinary education constitutes of a 11 year basic programme with a long term aim of developing productive citizens who are highly skilled and self - reliant. Advanced level education forms a post basic education programme for preparing learners for tertiary education and the world of work. The Education Act, envisages that the training output will be highly skilled and productive workforce.

8.3 EXISTING EDUCATIONAL FACILITIES

8.3.1 Early Childhood Development Centres (ECDs)

8.3.2 There exists a total of one hundred (100) registered and operational Early Childhood Development Centres (ECDs) within Bulawayo City Council's area of jurisdiction as at May 2018. However, in addition to these 100 registered ECDs all the primary schools within the City were offering ECD education at the time of the survey. Table 28 below shows the existing situation with regards to ECD facilities their location as well as other characteristics of ECD facilities within the City. Of all the operational facilities only twenty five (25) are owned by Bulawayo City Council but these have been leased to private operators, two (2) are owned by Non - Governmental Organisations (NGOs), nine (9) are owned by churches and seventy four (74) are privately owned.

8.3.3 The early childhood development (ECD) centres in the city are operating from primary schools, designated pre-school sites, church premises/halls and from residential units. However, there are some ECDs which are operating within the city from residential houses (special consent has not been approved) and hence these have not been registered.

8.3.4 Increased demand for Early Childhood Development Centres is a function of the growth and development of Bulawayo as well as introduction of early childhood learning as a prerequisite for enrolment to primary education. As more people take up residency in the city and are employed parents and guardians they are obliged to send their infants

to ECDs. Another explanation for an increase in pre-school education is the increasing scarcity and costs of house maids to look after infants while parents and guardians are at work. The above scenarios have contributed to the demand in two ways. First parents and guardians now utilise pre-primary education facilities more than ever before and the unaffordability of house maids has meant that parents have no option but to take children to ECD centres while they are at work.

8.3.5 The age cohort for early childhood development which aims at physical, mental and psychological and development of the child ranges as follows:

- i) 0-3 years old children (ECD A)
- ii) 3-4 years old children (ECD B)
- iii) 4-6 years old children (pre-primary)

8.3.6 As can be seen from table 26 below, all the ECD centres have a total enrolment of 4 328 which constitutes an average of 43 for each school. There is an opportunity for enrollment to be increased in the institutions. However, as with averages this figure may be misleading as some schools have large enrollments and may already be at the threshold of over-enrolment while others are small. For example Senzangakhona is the largest institution with an enrolment of 217 while Supreme has the lowest enrolment with 4 children. Facilities provision as per standards is such that there should be at least a pre-school to serve a population of 10 000. Using the 2012 population census for Bulawayo and assuming that 15% of the population is in the age cohort 0 – 6, 98 000 children are supposed to be attending early childhood schools.

8.3.7 However, the total enrolment of 4 328 children make up 0.67% of the current population of Bulawayo which is estimated at 653 337. The low enrolment may be attributed to high fees being charged in the institutions making them unaffordable to some parents and guardians.

Table: 28: Early Childhood Development Centres in Bulawayo

Name of Early Childhood Development Centre	Location &	Stand Size	Enrolment			Number of Teachers	Teacher: Pupil Ratio	Number of Classrooms	Ownership/
	Ward								Responsible
			Male	Female	Total				Authority
Arkel Nursery	Barham Green	1Acre	28	17	45	3	1 to 15	3	Private
	Ward 6								
Children`s House	CBD	1Acre	25	26	51	3	1 to 17	6	Private
	Ward 1								
Busy Bee	CBD	1Acre	15	19	34	2	1 to 17	3	Private
	Ward 1								

Apple Valley	CBD	1Acre	33	31	64	4	1 to 16	6	Private
	Ward 1								
Famona Nursery	Famona	1Acre	10	12	22	2	1 to 11	2	Private
	Ward								
Scribbles Nursery	Surburbs	1Acre	21	17	38	3	1 to 13	4	Private
	Ward 5								
Children`s Dream House	Southworld	1Acre	11	11	22	2	1 to 11	3	Private
	Ward 6								
S.T.Ks Nursery	Southworld	1Acre	16	15	31	2	1 to 16	2	Private
	Ward 6								
Snowy Nursery	Bellevue	1Acre	19	19	38	3	1 to 13	2	Private
	Ward 6								
Breakthrough	Bellevue	1Acre	15	26	41	3	1 to 14	4	Private
	Ward 6								
Balfour I & II	Bellevue	1Acre	12	21	33	4	1 to 8	2	Private
	Ward 6								
Oxford	Hillside	1Acre	9	12	21	3	1 to 7	2	Private
	Ward 5								
Mickey Minnie`s	Trade Fair	1Acre	33	35	68	6	1 to 11	4	Private
	Ward 5								
Hillside Nursery	Hillside	1Acre	33	10	43	3	1 to 14	2	Private
	Ward 5								
Step By Step	Hillside	1Acre	2	0	2	5	1 to 2	2	Private
	Ward 5								
Scallywags	Malindela	1Acre	9	12	21	2	1 to 11	1	Private
	Ward 4								
Be Artee Toddlers	Hillside	1Acre	7	7	14	2	1 to 7	1	Private
	Ward 5								
Engedi	Hilcrest	1Acre	15	12	27	2	1 to 14	1	Private
	Ward 5								
St Clares	Morningside	1Acre	10	13	23	2	1 to 12	1	Private
	Ward 5								
Wide Awake	CBD	1Acre	32	23	55	4	1 to 14	4	Private
	Ward 1								
First Step	Nguboyenja	1Acre	23	10	33	1	1 to 31	1	NGO - Jairos Jiri
	Ward 8								

Mlizane	Nguboyenja Ward 8	1Acre	13	16	29	2	1 to 15	2	BCC
Nguboyenja	Nguboyenja Ward 8	1Acre	22	26	48	3	1 to 16	2	BCC
St Gabriel's	CBD Ward 1	1Acre	31	24	55	3	1 to 18	3	Anglican Church
Queen Elizabeth	CBD Ward 1	1Acre	37	21	58	5	1 to 12	4	SDA Church
BKMS Nursery	Bellevue Ward 6	1Acre	12	23	35	4	1 to 9	2	Private
Nicolas	Famona Ward 5	1Acre	9	13	22	3	1 to 7	2	Private
Lancaster Pre-School	Hillcrest Ward 5	1Acre	45	65	110	6	1 to 18	5	Baptist Church
Bugs Bunny	CBD Ward 1	1Acre	26	15	41	3	1 to 14	2	Private
Greystone	Surburbs Ward 5	1Acre	17	18	35	4	1 to 9	3	Private
The Play Way	Hillside Ward 5	1Acre	18	20	38	4	1 to 10	2	Private
Church of Nazarene	Hillside Ward 5	1Acre	19	23	42	5	1 to 8	3	Private
Adolf Schmit	Parklands Ward 3	1Acre	15	24	39	4	1 to 10	2	Roman Catholic Sisters
Wendy House	Woodlands Ward 4	1Acre	20	21	41	5	1 to 8	4	Private
Come and Play	Hillside Ward 5	1Acre	22	12	34	2	1 to 17	2	Private
Kiddies Cottage	Ilanda Ward 4	1Acre	28	26	54	5	1 to 11	4	Private
Peter Pan	CBD Ward 1	1Acre	13	17	30	3	1 to 10	2	Private
Toddlers University	CBD Ward 1	1Acre	33	28	61	8	1 to 8	4	Private
Cinderella	Surburbs Ward 5	1Acre	7	8	15	3	1 to 5	3	Private
Christ The King	Hillside Ward 5	1Acre	30	29	59	4	1 to 15	3	Private
Newton Pre-Prep	CBD Ward 1	1Acre	35	27	62	8	1 to 8	3	Private

Royal Academy	CBD	1Acre	14	12	26	2	1 to 13	2	Private
	Ward 1								
Eagle Academy	Hillcrest Ward 5	1Acre	9	12	21	2	1 to 11	2	Private
Little Friends	Hillside Ward 5	1Acre	13	8	21	2	1 to 11	2	Private
Little Hearts	Hillcrest Ward 5	1Acre	22	34	56	5	1 to 11	3	Private
Mommy`s Day Care	Hillside Ward 5	1Acre	11	13	24	3	1 to 8	3	Private
Twinkle Nursery	Famona Ward 5	1Acre	6	22	28	2	1 to 14	3	Private
Senzangakhona	Mganwini Ward 26	6,214 5 Ha	107	110	217	5	1 to 43	2	BCC
Manondwane	Nketa 7 Ward 25	1 Ha	13	24	37	1	1 to 37	2	BCC
Childhood Day Care									
Sususu Day Care	Nketa 7 Ward 25	2200 m ²	17	7	24	2	1 to 12	3	BCC
E& CP Day Care	Nketa 7 Ward 25	3354 m ²	11	8	19	1	1 to 19	1	BCC
Toddlers Centre	Emganwini Ward 26	2000 m ²	7	6	13	1	1 to 13	1	Private
Supre Child Centre	Emganwini Ward 26	334m ²	1	3	4	2	1 to 2	2	Private
Blue Bell	Mahatshula North	600m ²	14	17	31	2	1 to 16	6	Private
	Ward 3								
Precious Moments	Killarney Ward 3	1 Acre	13	17	30	3	1 to 10	6	Private
Princess Margaret	Nketa 8 Ward 24	1 000m ²	31	35	66	2	1 to 33	2	Private
Nketa Baptist	Nketa 8 Ward 24	1 000m ²	6	15	21	1	1 to 21	1	Baptist Church
Nketa 6 Pre-School	Nketa 6 Ward 24	1 200m ²	30	24	54	3	1 to 18	2	BCC
Golden Educare	Nketa 6 Ward 24	1 200m ²	9	14	23	2	1 to 12	2	Private

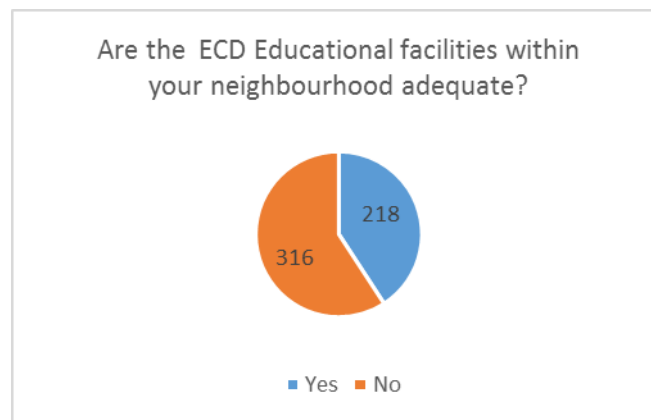
		2							
Gwabalanda	Gwabalanda Ward 16	6 432m ²	18	12	30	2	1 to 15	2	BCC
A&J	Gwabalanda Ward 16	3 038m ²	20	25	45	2	1 to 23	2	Private
Pumula South	Pumula South Ward 27	5 000m ²				2		2	BCC
Pumula Old	Pumula Old Ward 19	2 747m ²	41	34	75	2	1 to 38	2	BCC
Happy Faces	Gwabalanda Ward 16	615m ²	18	18	36	2	1 to 18	1	Private
Old Luveve	Old Luveve Ward 15	10 000m ²	30	35	65	3	1 to 22	2	BCC
Ukuhluma	New Luveve Ward 15	615.5 m ²	17	12	29	2	1 to 15	2	Ukuhluma Housing Co-Op
Magwegwe West	Magwegwe West Ward 18	6 432m ²	29	29	58	2	1 to 29	2	BCC
Fairlands	Pumula South Ward 27	375m ²	10	25	35	3	1 to 12	2	Private
Old Luveve	Old Luveve Ward 15	10 000m ²	30`	35	65	2	1 to 33	2	BCC
Ukuhluma	New Luveve. Ward 15	615.5 m ²	17	12	29	2	1 to 15	2	BCC
Magwegwe West	Magwegwe West Ward 18	6 432m ²	29	29	58	2	1 to 29	1	Private
Pelandaba	Pelandaba Ward 8	2.5 Ha	25	39	64	2	1 to 32	2	BCC
Ekukhanyeni	Luveve 4 Ward 15	2 Acres	24	18	42	2	1 to 21	2	Private
St Pius	Njube Ward 12	4420 m ²	44	23	67	2	1 to 34	2	Arch diocese of Bulawayo

Helping Hand	Njube Ward 9		22	26	48	2	1 to 21	2	Private
Little Angel	Mpopoma Ward 9	1 000m ²	24	37	51	2	1 to 30	2	Private
Nazaren									
Siboniso ECD Centre	Mpopoma Ward 9	1 015m ²	21	21	42	2	1 to 21	1	BCC
Mabutweni Pre school	Mabutweni Ward 13	300m ²	14	10	24	2	1 to 12	2	BCC
Kids University	Mpopoma Ward 9	1,5 Ha	38	49	87	4	1 to 22	3	Scouts
St Peter and Paul	Mpopoma Ward 9	2 Ha	14	8	22	2	1 to 11	2	Roman Catholic
Zamani Pre- School	Mpopoma Ward 9	2 Acres	21	21	42	2	1 to 21	2	BCC
Nazarene	Old Magwegwe Ward 18	1 152m ²	8	8	16	2	1 to 8	2	Nazareth Church
Magwegwe preschool	Old Magwegwe Ward 18	127,0 3m ²	17	19	36	2	1 to 18	2	BCC
Kinderose Infant	Cowdray Park Ward 28	5 220 m ²	19	24	43	4	1 to 11	3	Private
Love and Kindness	Saucertown Ward 2	655m ²	17	7	24	2	1 to 12	2	Private
St Margaret	Northend Ward 2	700m ²	14	8	22	3	1 to 7	2	Private
Tshaka 1	Makokoba Ward 8	560m ²	43	39	82	5	1 to 16	2	BCC
Vukuzenzele	Makokoba Ward 8	480 m ²	29	34	63	3	1 to 21	2	BCC
Makokoba	Makokoba Ward 8	420 m ²	15	18	33	2	1 to 17	2	BCC
My Little Pony and Friends	Saurcestown Ward 2	750 m ²	24	19	43	2	1 to 22	2	Private
Progressive	Emakhandeni Ward 11	5 078 m ²	5	6	11	2	1 to 6	2	Private

Canrose	Cowdray Park	1 080 m ²	23	26	49	2	1 to 25	2	Private
	Ward 28								
Entumbane	Entumbane Ward 10	950 m ²	30	31	61	3	1 to 20	2	BCC
Barbourfields	Barbourfields Ward 8	850 m ²	40	43	83	3	1 to 28	2	BCC
Emakhandeni	Emakhandeni Ward 11	900 m ²		29	51	2	1 to 30	2	BCC
			22						
Joyful	Bulawayo CBD	650 m ²	15	12	27	2	1 to 14	3	Private
	Ward 1								
Mzilikazi Baptist	Mzilikazi Ward 8	1 050 m ²	26	23	49	3	1 to 16	3	Private
St Padre-Pio	Entumbane Ward 10	1 080 m ²	32	35	67	2	1 to 34	2	Roman Catholic Church
S.O.S	Northend Ward 2	1050 m ²	67	71	138	6	1 to 23	6	S.O.S Children's villages
Welcome	Bulawayo CBD	800 m ²	47	20	67	4	1 to 17	3	Private
	Ward 1								
Total			2133	2175	4328	288	1 to 15	246	All

Source: BCC & Field Surveys – May 2017

8.3.8 There is a total of 4 328 children enrolled at the ECD facilities which with a total staff compliment of 288 teachers make an average teacher to pupil ratio of 1 to 15 a reasonable ratio at face value considering that this is an average with the ratio high at some centres where the teacher to pupil ratio exceeds 1 to 30. Some of the teachers are untrained. Planning bears the responsibility to ensure that the spatial distribution of the facilities is rationally equitable alongside other planning provisions such as the special consent procedure. Early childhood development centres established without planning permission are a cause for concern as they do not only breach the education policy but impact negatively on the children at such institutions. However, household surveys which were undertaken indicated that the majority of the respondents indicated that ECD facilities within neighbourhoods are not adequate. The shortage of facilities in some neighbourhoods results in parents taking children to other facilities outside the neighbourhood especially in the city centre. The results are shown in figure 17 below.

Figure 17: Adequacy of ECD facilities in the City

Source: Job Jika & Associates

8.3.9 The Ministry of Primary and Secondary Education through the Department of ECD oversees the planning, co-ordination and development of policies and strategies for pre-primary education. However, the City Council has a direct role in the supervision of pre-Schools. They check for compliance with the City's By-Laws and various departments and sections are involved namely:

8.3.10 The Housing and Community Services Department works through the following sections:

- i) **Education section**—co-ordination of ECD Curriculum and regulates enrolment (site visitations and register inspection).
- ii) **Architectural Section**—Design, production of architectural plans and project management for buildings built by Council only.
- iii) **Building Inspectorate Section**—Supervises the building process of private buildings, ensuring compliance with building by-laws, plan submissions, processing and site inspections at each stage of the building, ensuring that proper procedures are followed during construction and issuing certificates upon completion in order to ensure that the structure is suitable and safe for the activities to be carried out.
- iv) **Estates Section**—involved in the allocation, administration and renewal of leases as well as maintenance of the asset register.

8.3.11 Engineering Services Department:

- i) Involved in spatial planning and land use designation, allocation and checks for compliance with relevant by-laws (that the institution is established on the appropriate area with no disruptions to other infrastructure like sewer lines and water supply pipes etc.)

- ii) Availing site plans;
- iii) Provision/ supply of clean water;
- iv) Sewer connections to the municipal network or authorized onsite sanitation facilities;
- v) Servicing of land and road network

8.3.12 Health Services Department

- i) Ensuring environmental health compliance with health standards and ensuring the cleanliness of the facility and its surroundings in line with the required health standards
- ii) Ensuring that the enrolment accommodates and does not exceed the required number of children according to the space available
- iii) Equipment and toys are not hazardous to children
- iv) Administering and checking if all the children are immunised and up to date with the stipulated immunisation programmes to ensure that no child without immunisation card is enrolled at the facility.

8.3.13 These line function departments are carrying out their mandates satisfactorily.

8.3.14 The city has a good distribution of facilities and this has ensured that the whole city is well served. However, despite a provision of ECD facilities within the residential neighbourhoods, some parents have enrolled their children in ECD facilities at the City Centre so that they may drop them on their way to work and collect them when they knock off. It should be noted that not all parents are able to send their children to ECD centres especially the private ones as they are more expensive. As a result, the ECD centres at primary schools have more enrolment while other ECD going age children do not attend ECD schools and are left at home with guardians.

8.3.15 Some of the challenges which were indicated by people who are operating ECD centres in Bulawayo include shortage of space for outdoor equipment, failure and delays by parents to pay school fees, shortage of out-door equipment, low enrolment as parents take their children to ECDs in formal schools for ease of getting grade one places. There is a shortage of qualified teachers, learners work books, ICT resources which are expensive, shortage of class rooms, shortage of furniture and low participation by parents in school related activities.

8.3.16 It is important that it be ensured that there be a proper alignment of the various tiers of education within the education sector so that the education system in the city (country) is able to function in a coherent and integrated manner from the foundation phase (early childhood learning stage to the higher echelons of the system for seamless transition and progression from one tier to the next. The municipality can play a

meaningful role in influencing decision-making and policy formulation within the education sector as a prime role-player at the local government sphere.

8.4 PRIMARY SCHOOLS

8.4.1 A total of eighty (80) primary schools presently exist within Bulawayo. Four (4) primary schools are owned by Non-Governmental Organisations, Three (3) are privately owned, eleven (11) are owned by churches, twenty four (24) are owned by the Local Authority and thirty (38) are owned by the Government. Like ECDs, primary schools are basically neighbourhood institutions and hence they are evenly distributed throughout Bulawayo a scenario which has been improved by the presence of private primary schools. Since year 2 000 five (5) primary schools, one (1) private, one (1) church and three (3) owned by the City of Bulawayo have been constructed to date. This represents 4% increase in primary school provision in the planning area since the last master plan. Table 29 below presents the existing scenario and details of primary schools in Bulawayo.

Table 29: Existing Primary Schools in Bulawayo

Name of School	Established	Location	Stand/ Plot Size	Number of						Ownership
				Classrooms	Teachers	Pupils	Classroom to Pupil Ratio	Teacher-Pupil Ratio	Staff Houses	
Barham Green	1953	Barham Green		15	25	871	1 to 58	1 to 35		Government
Coghlan	1911	CBD	35 294	34	46	1 824	1 to 54	1 to 40	2 flat lets	Government
Dominican Convent	1895	Lobengula St.		21	25	447	1 to 21	1 to 18	0	Dominican Sisters
Fairview	1943	Parklands		19	23	477	1 to 25	1 to 21	1	West Zimbabwe Conference
Greenfield	1916	Southhold		33	34	1 217	1 to 37	1 to 36	2	Government
Henry Low	1955	Greenhill		24	37	1 378	1 to 57	1 to 37	1	Government
Hillside	1951	Malindela		29	33	1 285	1 to 44	1 to 40	1	Government
John Slaven	1975	Malindela		14	17	116	1 to 8	1 to 7	1	Government
King George VI	1957	Kumalo	20 acres	9	19	116	1 to 13	1 to 6	0	King George Centre
Kumalo	1952	Kumalo		27	35	1563	1 to 58	1 to 45	0	Government
Losikeyi	1954	Nguboyenj a		26	30	1091	1 to 42	1 to 36	1	Government
Milton Junior	1910	CBD		33	33	1169	1 to 35	1 to 35	0	Government
Moray	1957	Famona	6 Ha	22	36	1278	1 to 58	1 to 36	2	Government
Robert Tredgold	1933	Batch St.	5306 m2	33	40	1519	1 to 46	1 to 38	0	Government
Simanyane	1983	Newton West	16 Acres	6	7	60	1 to 10	1 to 9	0	Zimcare Trust
Sir Humphrey Gibbs	1963	Kumalo		10	9	83	1 to 8	1 to 9	0	Zimcare Trust

St Francis	1982	Ingutsheni Hospital	10 000 m ²	6	9	75	1 to 13	1 to 8	0	Government
St Thomas	1956	Kumalo		7	16	210	1 to 30	1 to 13	0	Catholic
Tennyson	1959	Ilanda	5 acres	21	23	904	1 to 43	1 to 39	0	Government
ZRP Ross Camp	1940	6th Av. Ext.		18	23	707	1 to 39	1 to 31	0	Government
Amazon	2009	Mahatshula North	3 Ha	7	14	215	1 to 31	1 to 15	0	Private
Cement	1986	PPC	5,4 Ha	13	15	336	1 to 26	1 to 22	11	Private
Centenary	1998	Killarney	51480 m ²	9	15	294	1 to 33	1 to 20	0	Private
Emganwini 2 Pr.	2014	Emganwini	1250 m ²	4	19	627	1 to 157	1 to 33	0	Government
Hope Fountain	1870	Hope Fountain	1100 m ²	20	22	692	1 to 35	1 to 31	6	UCCSA
Imbizo Garrison	1957	Imbizo Garrison	5,4 Ha	13	17	580	1 to 45	1 to 34	0	Government
Induna	1959	Llewellin Barracks	36 000 m ²	18	18	602	1 to 33	1 to 33	2	Government
Lochview	1948	Lochview	21,71 Acres	8	18	604	1 to 76	1 to 34	0	Government
Mahatshula	1996	Mahatshula South	5, 5 Ha	28	38	1197	1 to 43	1 to 32	0	BCC
Manondwane	1990	Nketa 7	4142 Ha	21	49	1279	1 to 61	1 to 26	0	BCC
Maranatha Pr.	2014	Nketa 7		12	11	297	1 to 25	1 to 27		South Zimbabwe Conference
Masiyephambili Pr.	1991	Selbourne Park	7 Hectares	19	22	371	1 to 20	1 to 17		NGO - Masiyephambili School Trust
Mganwini Pr.	1989	Nketa 8	6,2145 Ha	27	52	2020	1 to 75	1 to 39	1	BCC
Mgiqika	1994	Kensington	6,4000 Ha	26	55	1904	1 to 73	1 to 35	0	BCC
Mguza SDA	1948	Lochview	2 Hectares	19	39	1391	1 to 73	1 to 36	1	SDA
Amaswazi	1981	Pumula North	45 900 m ²	21	33	1006	1 to 48	1 to 30	1	Government
Babambeni	1980	Pumula North	24 750 m ²	20	30	1086	1 to 54	1 to 36	1	Government
Dumezweni	1998	Pumula South	28 000 m ²	26	55	2031	1 to 78	1 to 40	1	BCC
Fusi	1980	Gwabaland a	34 200 m ²	22	41	1431	1 to 65	1 to 36	1	Government
Godlwayo	1981	Old Pumula	40 470 m ²	23	41	1431	1 to 62	1 to 36	1	Government
Hyde Park	1929	Methodist Village	29 000 m ²	12	12	559	1 to 47	1 to 47	5	Methodist Church
Inzwananzi	1980	Gwabaland a	29 000 m ²	21	30	870	1 to 41	1 to 29	1	Government
J.W. Mthimkhulu	1990	Magwegwe West	400 000 m ²	19	29	976	1 to 51	1 to 34	1	BCC
Khami Prison	1969	Khami Prison Complex	500 m ²	12	24	708	1 to 59	1 to 30	9	Government
Luveve	1935	Old Luveve.	20 000 m ²	11	20	555	1 to 50	1 to 28	1	Government
Mafakela	1962	Luveve	25000 m ²	23	24	658	1 to 29	1 to 27	1	Government

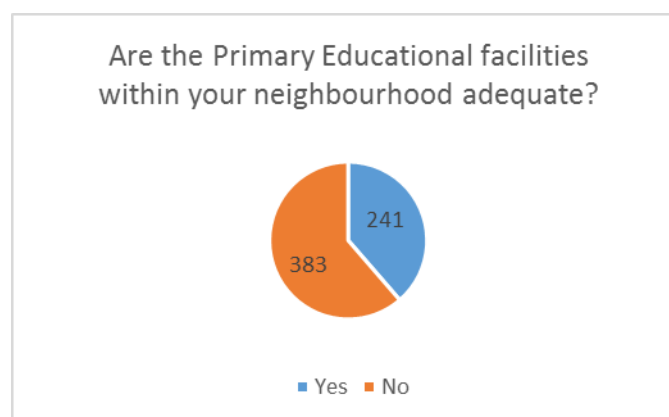
Malindela	1988	Pumula South	35898 m ²	26	38	1236	1 to 48	1 to 33	1	BCC
Matshayisikhova	1956	Sidojiwe	36051 m ²	17	28	934	1 to 55	1 to 33	1	Government
Mazwi	1929	Magwegwe	37236 m ²	20	31	1014	1 to 51	1 to 33	1	Government
Ngwalongwalo	2002	Pumula South	50 000 m ²	14	41	1520	1 to 109	1 to 37	1	BCC
Mbizo	1954	New Luveve	49 950 m ²	16	23	685	1 to 43	1 to 30	1	Government
Percy Iboston	1960	Percy Iboston	28000 m ²	6	6	401	1 to 67	1 to 67	0	Government
Rangemore	1957	Upper Rangemore	13540 m ²	13	13	905	1 to 70	1 to 70	1	Government
Robert Sinyoka	1924	Hyde Park,	30000 m ²	18	18	630	1 to 35	1 to 35	0	Presbyterian Church
St. Bernards	1954	Pumula	31800 m ²	25	25	1153	1 to 46	1 to 46	0	Roman Catholic Church
St Peters	1953	Mazwi Village	1 113,42 m ²	12	12	508	1 to 42	1 to 42	2	BCC
Thembisio	1978	Luveve	28 000 m ²	13	13	475	1 to 37	1 to 37	0	Presbyterian church
Queen Elizabeth 11	1993	Nkulumane 12	60 855 m ²	21	34	1240	1 to 59	1 to 36	1	BCC
Induba	1957	Iminyela	4,94 Ha	26	38	1369	1 to 53	1 to 36	12	GVT
Intunta	1979	Sizinda,		21	27	955	1 to 45	1 to 35		GVT
		Lobengula West	3263 ha	21	42	1432	1 to 68	1 to 34	0	BCC
Nyamande	1974	Old Lobengula	2,8296ha	23	39	1262	1 to 55	1 to 32	1	GOVT
Sigombe	1992	Nkulumane	4,105ha	25	33	1249	1 to 50	1 to 38	0	BCC
Mahlabezulu	1968	Tshabalala	1 ha	23	46	1469	1 to 64	1 to 32	2	GOVT
Mpumelelo	1961	Mpopoma	40502m ²	26	39	1450	1 to 56	1 to 37	2	GOVT
Mtshane	1987	Nkulumane	4.135ha	21	38	1464	1 to 70	1 to 39	0	BCC
Mgombane	1996	Nkulumane	6,973ha	21	31	979	1 to 47	1 to 32	0	BCC
Gampu	1954	Matshobane	35650m ²	24	35	1075	1 to 45	1 to 31	2	GVT
		Mpopoma					1 to 45	1 to 31		
Nkulumane	1958	Mpopoma	5,74ha	29	37	1165	1 to 40	1 to 31	2	GVT
Insukamini	1957	Mpopoma	5ha	24	43	1311	1 to 55	1 to 30	2	GVT
Pelandaba	1964	Lobengula	2,4ha	15	21	786	1 to 52	1 to 37	0	SDA Church
Ntshamathhe	1991	Old Magwegwe	40 000m ²	21	31	1016	1 to 48	1 to 33	0	BCC
Aisbley	1961	21 Aisleby Farm		8	8	25	1 to 3	1 to 3	0	BCC
Josiah Chinamano	1997	Emakhandeni		21	30	971	1 to 46	1 to 32	0	BCC
Mahlathini	1997	Cowdray Park	6,2345 Ha	27	65	2382	1 to 88	1 to 37	1	BCC
Mkhithika Thebe	2002	Cowdray Park		27	52	2288	1 to 85	1 to 44	0	BCC
Mtshingwe	1987	Emakhandeni		21	26	930	1 to 44	1 to 36	1	BCC

Mthombowesizwe	1988	Emakhandeni		21	26	930	1 to 44	1 to 36	1	BCC
Tategulu	1991	Cowdray Park	19471	21	43	1317	1 to 63	1 to 31	1	BCC
Zulukandaba	1592	Entumbane	33767	21	31	1067	1 to 51	1 to 34		BCC
Total				1549	2326	77703	1 to 50	1 to 33		

Source: MoPSE, BCC & Field Surveys – May 2018

8.4.2 A total of 77 703 pupils were enrolled in the primary schools as at May 2018. According to the existing standards, a school should have a maximum of 22 classrooms with a maximum enrolment of 40 pupils per classroom, making the maximum enrolment figure in each school 880 students. From the above table 27 more than half of the public primary schools have far much higher student enrolments and this is attributed to a shortage of public primary schools especially in the high density residential areas though the situation is much worse in the newer residential areas. Some schools exceed the standard ratio in some cases exceeding 1:900 to over 1:1000 as shown on the table above. The school with the highest enrolment (2382) is Mahlathini. On the other hand, schools which offer specialist services such as Simanyane and Sir Humprey Gibbs have low enrolment of 60 and 83 pupils respectively. The shortage of schools in some neighbourhoods has resulted in high enrolments in some primary schools. Results of some household surveys as shown in figure 18 revealed that there is a shortage of primary schools in the city.

Figure 18: Adequacy of Primary schools in the city



Source: Job Jika & Associates

8.4.3 KG VI, Sibantubanye and Riverside Stimulation centre primary schools are the only schools which are catering for special needs students such as the visual impaired, hearing impaired and mentally challenged. Boarding facilities for special needs students are also being provided at KG VI.

- 8.4.4 There is a shortage of classrooms in most of the public schools in Bulawayo. The average classroom to pupil ratio for all the primary schools is 1:50. However in reality the classroom to pupil ratios of the primary schools is not the same. Public schools namely Mahlathini (1:88), Mkhithika Thebe (1:85) and Mganwini (1:75) which is way above the standard 1:40. Private schools generally have low classroom to pupil ratios. For example Dominican Convent has a ratio of 1:18 with Masiyephambili having a ratio of 1:17. The shortage of classrooms in all public schools has resulted in hot sitting in most schools.
- 8.4.5 The shortage of teachers in public primary schools in Zimbabwe is a problem created and attributable to Government's freeze in the hiring of teachers in an effort to reduce the wage bill. There are several qualified teachers who are not employed and in an effort to ensure full staff compliments the School Development Committees (SDCs) have employed "temporary" teachers to address the problem.
- 8.4.6 As far as stand sizes for the primary schools are concerned, this has become an issues especially in the public schools which were constructed a long time ago. All the public school stands have become small to meet the needs for additional infrastructure, sports fields and other facilities as stipulated in the new curriculum. Support facilities such as libraries and resource centres are still lacking especially in public schools. Furthermore there are no computers and science equipped laboratories which are increasingly becoming essential in today's learning environment. Another issues of concern among all the schools is the shortage of teacher's accommodation in all the primary schools.

8.5 SECONDARY SCHOOLS

- 8.5.1 There are forty two (42) secondary school in Bulawayo. There are six (6) private secondary schools, fix (5) are being managed by churches, one (1) by the city council and 30 are owned by the government. There has been a 29% increase in the provision of secondary schools since the preparation of the previous master plan in 2000. The provision has been undertaken by Government five (5) schools, private, three (3) schools, churches, three (3) schools and the City of Bulawayo, one (1) school. Of all registered secondary schools thirty five (35) are offering secondary education up to Advanced Level. The existence of many high schools in the city is a positive development for the country as the students can be absorbed in the various universities in the country. Table 30 below shows information about the secondary school situation in Bulawayo.

Table 30: Secondary/High Schools in Bulawayo

Name of School	High/Sec School	Established	Location	Number of				Ownership
				Classrooms	Teachers	Pupils	Staff Houses	
B.A.H.S	High	1980	Suburbs	28	34	631	0	SDA Church
Dominican Convent	High	1894	Lobengula St.	24	22	450	0	Dominican Sisters
Eveline	High	1910		33	57	1112	5	Government
Founders	High	1952	Barham Green	37	73	1623	2	Government
Gifford	High	1927	Old Matopos road Famona	23	47	980	1	Government
Girls College	High	1983	Suburbs	21	61	487	0	Board of Governors
Hamilton	High	1959	Famona	29	40	972	1	Government
Milton High	High	1927	Suburbs	47	48	824	5	Government
Montrose	High	1971	Morningside	18	39	787	0	Government
Townsend	High	1950	Ilanda	30	48	1051	17	Government
Christian Brothers College	High School	1954	Matshemhlope	55	57	530	8	Board of Governors
Eastview	High School	2011	Mahatshula North	22	14	192	4	Private
Elite	High School	2013	Mahatshula North	10	5	105	0	Private
Emsizini	Sec	2007	Kensington	4	8	184	3	United Methodist

Emganwini	High School	2006	Emganwini	10	35	871	0	Government
Induna	High School	1984	Induna Barracks	10	33	530	8	Government
Maranatha	High School	2001	Nketa 7	30	49	1200	0	South Zim. Conferences
Masiyephambili College	High School	1999	Montrose	16	19	196	0	Board of Trustees
Nketa	High School	1988	Nketa 8	26	74	1568	1	Government
Nkulumane	Sec	2010	Nkulumane 12	8	33	675	0	Government
Petra	High	1993	Matshemhlophe	32	41	391	0	Petra Trust
Amhlophe	High	1984	Pumula East	20	63	1131	1	Government
Green Gables	High	2010	Dunstill Farm , Bulawayo	10	8	267	0	AFM
Inyanda	High	1984	Gwabalanda	16	63	1142	1	Government
Masotsha	High	1986	Magwegwe North	12	42	691	1	Government
Premier	High	2005	Pumula South	28	27	588	0	Private
Pumula	High	1983	Pumula North	19	76	1593	1	Government
Pumula South	Sec	2016	Pumula South	6	19	568	0	Government
St. Bernards	High	1965	Pumula	22	35	852	0	Roman Catholic
Sizalendaba	Sec	2013	Mazwi village	4	8	186	0	B.C.C
Khami Prison	sec	2011	Khami Prison Complex	4	6	140		Government

Magwegwe	High	1982	Magwegwe	37	70	1752	1	GVT
Sikhulile	High	1988	Lobengula West	18	82	2148	0	GVT
Njube	High	1973	Njube	20	70	1741		GVT
Sizane	High	1963	Pelandaba	23	53	1426	1	African Methodist
Msiteli	High	1972	Mpopoma	31	58	1497	2	GVT
Nkulumane	High	1984	Nkulumane	20	73	1900	1	GOVT
Lobengula	High	1986	Lobengula Extension	10	49	1117	1	Govt
Ihlathi	High	1970	Tshabalala	18	80	1461	0	Govt
Mandwandwe	High	1998	Nkulumane	14	25	1401	0	Govt
Total					1744	36 960		

Source: MoPSE, BCC & Field Survey, May 201

- 8.5.2 The secondary schools in the city have a wide variety of academic support facilities, such as a libraries, science laboratories and computer laboratories. Some of the courses which are being offered at the schools include ICT, construction, bakery, fashion and fabrics, agriculture and home economics in line with the new curriculum. The majority of the secondary schools in the city do not offer boarding facilities and hence students from the residential neighbourhoods and other parts of the city are enrolled at these secondary schools. The majority of the secondary schools do not provide teachers with accommodation within the school premises. As a result, teachers have to secure alternative accommodation in the city.

8.6 POPULATION OF SCHOOL-GOING AGE IN BULAWAYO

- 8.6.1 Table 29 shows that 46 percent of Bulawayo's population in 2012 was made up of the prime school-going population 0 to 19 years. This population is on the increase based on the intercensal population survey of 2017. It would essential understanding the relationship of this population structure in relation to the required number of educational facilities, enrolment and school attendance or non-attendance.
- 8.6.2 Using the 2012 Census statistics through interpolation, there were about 49 524 infants requiring pre-primary education between 3 and 5 years old excluding those below 3 years. There is however a high rate of attendance of school between the ages 3 and 5 years in the city as further explained below and based on the intercensal population survey of 2017. It estimated that there were about 104 270 children of primary school-going age and between the ages 6 to 12 years while there were approximately 54 875 children of secondary school-going age (O-Level between ages 13 and 16 years). Those requiring A-level education between 17 and 18 years would have been about 27071 people. These estimates may provide an idea of the number of educational facilities required in the city. For example, about 118 primary schools would have been required in the city as opposed to the 80 existing schools.
- 8.6.3 While efforts are made by planners during the design of layouts to ensure a provision of sites for primary schools in the neighbourhoods so that pupils attend schools nearest to their locality the development of these sites has lagged behind. Primary schools in Bulawayo are not enough to cater for the whole town. The non-development of schools in the new residential neighbourhoods explains why pupils travel long distances to other wards or the city centre to attend school.

Table 31: Population of School-going Age in Bulawayo, Census 2012

Age Group	Male Number	Female Number	Total	% Male	% Female	Total %
20 to 24	31803	41436	73239	4,87	6,34	11,21
15 to 19	33923	44282	78205	5,19	6,78	11,97
10 to 14	32940	36570	69510	5,04	5,6	10,64
5 to 9	32980	34699	67679	5,05	5,31	10,36
0 to 4	42267	42909	85176	6,47	6,57	13,04
Total	173913	199896	373809	26,62	30,6	57,22

Source: ZIMSTATS

8.7 SCHOOL ATTENDANCE

8.7.1 The study commences by looking at the school attendance rate in the city by specifically focusing on those who never attended school as shown on Table 29. Zimstat recognizes the school-going age as ranging from 3 years to 24 years although it is a fact that some infants under 3 years old attend pre-school mainly for child care while the parents are at work. Most of the children (92 percent) aged 3 years 56.5 percent aged 4 years and 15.5 percent aged 5 years did not attend pre-school in Bulawayo in 2017. Most children start attending school at 6 years old. It is of great concern that 2 percent of children aged 7 and 8 years did not attend school, an age where all children of this age should be in Grade 1 and 2 under normal circumstances. Another worrying statistic is that 3.8 percent of those aged 9 years (who should be in Grade 3) did not attend school in 2017. It is also noted that 3 percent of children who were supposed to be in Form 3 never attended school.

8.7.2 A similar picture emerges across the country albeit in a varied way. With 9.1 percent of children of school-going age who never attended school, Bulawayo came second best to Matabeleland South with the lowest percentage (8.5 percent) of children who did not attend school in 2017. The scenario depicted on Table 32 should be of great concern to the city as education in axle around which development revolves hence all children must be prepared primary school through enrolment at pre-school and that all children of primary school-going age should be in primary school.

Table 32: Percentage Total Population Age 3 – 24 yrs who never Attended School by Province

School/ Grade	Age	Manical and	Mashonaland Central	Mashonaland East	Mashonaland West	Matabeleland North	Matabeleland South	Midlands	Masvingo	Harare	Bulawayo	Total
Preschool	3	91.0	93.8	96.0	98.0	98.9	96.4	92.4	91.1	91.2	91.9	93.7
Preschool	4	67.9	71.0	61.6	77.2	58.4	62.2	63.4	56.7	62.7	56.5	64.6

Preschool	5	22.7	32.9	28.6	28.9	13.2	22.5	24.0	19.7	25.1	15.5	24.6
Grade 1	6	6.1	11.5	6.4	13.1	8.9	8.7	10.0	3.3	6.4	7.4	8.1
Grade 2	7	4.7	5.3	4.0	4.7	1.2	1.0	3.1	1.8	6.5	2.0	3.8
Grade 3	8	1.8	1.0	1.3	7.3	4.9	1.4	1.0	1.1	1.0	2.0	2.1
Grade 4	9	0.6	4.1	0.0	1.6	0.0	0.0	1.7	0.9	1.0	3.8	1.2
Grade 5	10	0.6	4.7	0.0	2.4	0.0	2.4	0.0	0.8	1.6	0.0	1.3
Grade 6	11	1.1	1.3	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.4
Grade 7	12	1.6	2.4	0.0	0.8	4.0	0.0	0.7	1.0	1.0	0.0	1.1
Form 1	13	0.8	1.0	2.4	1.5	2.5	1.4	1.6	1.4	1.9	0.0	1.5
Form 2	14	0.6	2.6	0.0	0.6	0.0	0.0	0.6	0.8	0.0	0.0	0.6
Form 3	15	0.7	1.1	1.2	3.4	0.0	1.5	1.9	1.9	0.0	3.0	1.5
Form 4	16	2.4	0.8	0.0	2.1	3.0	1.8	0.6	1.5	1.8	0.0	1.4
Lower Sixth/Tertiary	17	1.1	3.5	0.5	4.4	1.7	0.0	0.0	1.5	0.9	0.0	1.5
Upper Sixth/Tertiary	18	2.4	1.2	1.2	2.7	0.0	0.0	0.0	0.4	0.6	0.0	1.0
Tertiary	19	0.0	0.0	1.1	1.5	1.8	0.0	1.0	3.6	0.7	1.8	1.1
Tertiary	20	3.3	3.2	0.0	0.0	0.0	0.0	1.9	2.7	0.8	0.0	1.3
Tertiary	21	0.0	1.2	3.2	2.3	0.0	0.0	1.2	0.0	0.8	0.0	1.0
Tertiary	22	2.0	0.0	0.0	3.2	0.0	1.8	2.3	1.5	2.4	1.9	1.7
Tertiary	23	0.0	1.1	3.1	1.5	6.4	0.0	0.0	1.4	0.8	0.0	1.2
Tertiary	24	1.4	3.4	0.0	2.6	0.0	0.0	0.0	0.0	0.0	2.1	1.0
Total		12.1	14.2	12.7	14.4	10.6	8.5	11.6	10.5	11.8	9.1	11.9

Source: Zimbabwe ICDS 2017

8.8 PRIVATE COLLEGES

8.8.1 In addition to the secondary and high schools in the city there are seventeen (17) private colleges which have been established in the city to compliment, Government, Churches and the City Council in the provision of secondary education. Table 33 below shows information on private schools in the city. The majority of the colleges are located in the high density residential areas having been granted special consent while those within the CBD and are operating from commercial buildings or residential flats also through special consent. However, there are some colleges which are operating from the high density residential areas, colleges such as Herentals and Foundation which have main branches in the city centre and other branches in the residential neighbourhoods of Nkulumane 12 and Pumula South. The private colleges are offering academic education from Form 1 to 6 as well as some professional courses.

Table 33: Private Colleges in the City

Name of Institution	Location	Enrolment			Number of teachers	Number of Classrooms
		M	F	T		
Herentals Group	CBD	152	133	285	10	9

Trust Academy	CBD	67	73	140	11	9
Denmark Training Services	CBD	40	126	186	11	11
Foundation College	CBD	93	91	184	19	14
New Horizon Institute	CBD	14	35	49	6	15
Faith Christian College	CBD	76	84	160	10	12
Herentals	CBD	169	195	364	11	11

Maryrose	Emganwini	71	83	154	4	4
Agape	Nketa 7	81	95	176	13	9
Tropical Vineyard	Nketa 8	60	81	141	9	6
New Vision	Nkulumane 10	85	65	100	6	6
Epic	Pumula South				4	4
Luveve	Luveve				5	4
Sky of good Hope	Pumula South				6	4
Enkanyisweni	Njube	61	73	134	8	8
Foundation	Nkulumane complex	41	40	81	12	10
Herentals	Nkulumane 12	41	40	81	6	6
Total						

Source: MOPSE

8.8.2 At the time of preparing the Report of Study some of the challenges which were being experienced by the private colleges included, high rentals, lack of grounds for sporting activities, shortage of text books, shortage of furniture, shortage of classrooms, shortage of laboratory equipment and chemicals and no payment of fees by the students.

8.9 VOCATIONAL TRAINING

8.9.1 The Bulawayo City Council has a vocational training section which was established in 1961, when the unemployment rate of school leavers was high. The then City Council introduced a system whereby school leavers could gather at different points called

placement centres in the western townships for recreational purposes. The activity removes youths from the streets, curbing delinquent behaviour and builds a responsible citizen, hence building a positive image of Bulawayo and indeed the Zimbabwean community. The activity promotes growth of small and medium entrepreneurs as well as contributing to the Zimbabwe agenda for sustainable socio- economic transformation (ZIMASSET).

- 8.9.2 The Bulawayo City Council's objective in the youth vocational training programme is to equip the youth with vocational and technical skills which enable them to get formal employment or self-help projects. The various types of projects being undertaken during vocational training is shown in table 34 below:

Table 34: Vocational Training centres and skills offered at the centres

Discipline	Name of centre	Surbub	Duration
Agriculture	Khami	Pumula South	3 years
Art	Mzilikazi	Mzilikazi	2 years
Building	Bongani	Njube	3 years
Carpentry	Luveve	Luveve	3years
Plumbing	Pumula	Old Pumula	3 years
Painting	Mzilikazi school of art	Mzilikazi	3years
Motor mechanics	Tshaka workshop	Makokoba	3 years
Welding	Inyathi youth centre	Mpopoma	3 years

Source: Bulawayo City Council & Consultants Surveys

- 8.9.3 The graduates from vocational training are absorbed in the co-operatives section of the city as well as in the small and medium enterprises and a few in the employment industries. In the past five years the number of graduates from the various vocational training disciplines are shown in the table below.

**Table 35: Number of graduates at the various vocational training centre
2012 -2017**

Year	Number of graduates
2012	78
2013	73
2014	68
2015	73
2016	74
2017	103
Total	469

Source: Bulawayo City Council

8.9.4 Whilst the vocational training section is making a positive contribution in terms of human capital there were some challenges which are being experienced in ensuring the smooth running of the section. These include:

- Transport - one vehicle services all the three sections (vocational training, co - operative development and home industries) and is in a state of disrepair spending half the time at the repair workshop.
- Staffing - retired staff still has not been replaced in the vocational centres.
- Lack of computers and internet services within most of the centres
- Memorandums of Understanding between council and NGOs or other funding partners / individuals take too long to be processed; hence we lose out on prospective stakeholder involvement / finance.
- Low recruitment especially the boy child in some disciplines.
- Lack of modern and industrial machinery and equipment.
- Current liquidity challenges facing the country have hit hard service delivery.

8.10 TERTIARY AND VOCATIONAL EDUCATIONAL FACILITIES

8.10.1 There are 5 tertiary and Vocational educational facilities namely National University of Science and Technology (NUST), Lupane State University (LSU), Zimbabwe Open University (ZOU), Zimbabwe School of Mines (ZSM), Hillside Teachers College (HTC), United College of Education (UCE), Bulawayo Polytechnic and Westgate Industrial Training College (WITC)

8.10.2 National University of Science & Technology

8.10.2.1 The National University of Science and Technology (NUST) was established in 1991 through an Act of Parliament. The institution has been developed on a 160 hectares plot which was donated by the City of Bulawayo for its construction and the provision of a capital budget by the government for the first phase of its construction. It is the second largest public research university in Zimbabwe.

8.10.2.2 The main campus is located at the Corner Cecil Avenue and Gwanda Road, and other physical locations in Bulawayo and other parts of the country are as shown in the table below:

Table 36: Location of NUST Campuses in the Country

Name of Unit	Location	Nature of Business
NUST Harare Office	ZIMDEF House, Off Mother Patrick Avenue, Rotten Row Harare	Offices and Teaching space
Institute of Development Studies	Number 38 Duncan Road, Suburbs, Bulawayo	Offices and Teaching space

Centre for Continuing Education, Publishing Studies Department	55 Jason Moyo Bulawayo	Offices and Teaching space
Faculty of Medicine	Mpilo Hospital near Barbourfields and Mzilikazi Suburbs, Bulawayo	Offices and Teaching Space
University Library	Number 114 Fort Street, Bulawayo	Library

Source: Nust & Consultant Surveys

8.10.2.3 On 8 April 1991, NUST opened for the first time with 270 students in three (3) faculties and 13 departments namely the faculty of Commerce with 5 departments, faculty of Applied Science with 5 departments and the faculty of Industrial Technology with three departments. The number of faculties has since increased to seven (7) as shown in the table below. The number of academic staff at Inception was 28.

Table 37: Faculties and Departments at the inception of NUST (1991)

Name of Faculty	Departments
Commerce	<ul style="list-style-type: none"> • Accounting • Banking • Business Management • Finance • Insurance and Risk Management
Applied Science	<ul style="list-style-type: none"> • Applied Biology and Biochemistry • Applied Chemistry • Applied Mathematics • Applied Physics • Computer Science
Industrial Technology	<ul style="list-style-type: none"> • Civil and Water Engineering • Electronic Engineering • Industrial Engineering

Source: Nust & Consultant Surveys

8.10.2.4 Over the years the number of Faculties and Departments has increased and as of 2018, the University has seven (7) Faculties and thirty nine (39) Departments respectively respectively as shown in the table below:

Table 38: Faculties and Departments as at 2018

Name of Faculty	Departments
Applied Science	<ul style="list-style-type: none"> • Applied Biology and Biochemistry • Applied Chemistry • Applied Mathematics

	<ul style="list-style-type: none"> • Applied Physics • Computer Science • Environmental Science and Health • Forest Resources and Wildlife Management • Operations Research and Statistics • Sports Science and Coaching
Commerce	<ul style="list-style-type: none"> • Accounting • Banking and Investment Management • Business Management • Finance • Insurance and Risk Management • Marketing
Communication and Information Science	<ul style="list-style-type: none"> • Journalism and Media Studies • Library and Information Science • Publishing • Records and Archives Management
Medicine	<ul style="list-style-type: none"> • Anatomy and Physiology • Pharmacology and Biochemistry • Pathology • Social Behavioural Sciences • Nursing and Midwifery Sciences • Community Medicine • Surgery and Anaesthetics • Obstetrics and Gynaecology • Paediatrics • Medicine • Psychiatry
Industrial Technology	<ul style="list-style-type: none"> • Civil and Water Engineering • Electronic Engineering • Industrial Engineering • Fibre and Polymer Materials Engineering • Industrial and Manufacturing Engineering • Chemical Engineering
Science and Technology Education	<ul style="list-style-type: none"> • Science and Technology Education • Applied Art and design • Technical and Engineering Education

Source: Nust & Consultant Surveys

8.10.2.5 There are plans to introduce the Faculty of Environmental Science currently surrogated to the Faculty of Applied Science as well as the Faculty of Culture and Heritage Studies in line with Ministry of Higher and tertiary Education Science and Technology's expectation.

8.10.2.6 Due to an increase in the number of faculties and departments student enrollment has increased annually over the past six years except for year 2014/15. To date there are approximately 9 710 students as shown in the table below.

Table 39: Student enrolment over the past six (6) years; 2012 – 2018

Academic Year	Student Enrollment
2012/2013	7 042
2013/2014	8 650
2014/2015	7 957
2015/2016	8 937
2016/2017	9 342
2017/2018	9 710
Total Student Enrollment to Date	51 638

Source: NUST

8.10.2.7 As a University NUST attracts students some international students. However, overall, there has been a decline in the number of foreign students enrolled at NUST. The table below shows enrolment of international students over the past six years.

Table 40: Enrolment Statistics of international students: 2012 – 2018.

Academic Year	Student Enrollment
2012/2013	18
2013/2014	39
2014/2015	32
2015/2016	55
2016/2017	7
2017/2018	9
Total number of international students to date	160

Source: NUST

8.10.2.8 Physical infrastructural developments which have been provided at NUST and in the city centre in an effort to provide a conducive learning and living environment for students and lecturers. These consist of the following:

Table 41: Physical Infrastructure at NUST

Type of Physical Infrastructure	Number
Administration Block	1
Commerce Block	1
Chemical Engineering Block	1
Chemistry Block	1
Multipurpose Hall	1
Lecture Rooms	53
Gym Hall	1
Laboratories	34
Kitchen	3
Dining Hall	3
Library	5
Workshops	5
Clinic	1
Student Hostels	
Main Campus	114 rooms
Rose Flats	14 flats
Faculty of Medicine (Mpilo)	
Staff Residence	
Wello Court	19 Flats
Gleb Flats	8 Flats
No. 55 Jason Moyo	19 Flats

Source: NUST

8.10.2.9 Whilst efforts have been undertaken to implement the University Master Plan, there has been very little funding being allocated to facilitate construction of other essential infrastructure at the University. To date there are some incomplete or outstanding developments such as the Faculty of Communication and Information, Faculty of the Built Environment, Faculty of Environmental Science, Faculty of Industrial Technology, Faculty of Applied Science, Amphitheatre, Central Library, Campus Services centre, Staff Houses, Student Union, Student Residences, Technopark, Sports Complex, Central Stores and the Solar Plant.

8.10.2.10 In addition, in line with developments and market demands some new land use have been proposed for incorporation into the University Master Plan for implementation in future. These include prefabricated Lecture Halls, the DNA Test Centre, Incinerator, shopping mall and a filling station and a University garden.

8.11 Lupane State University

Lupane State University was established through an act of the Zimbabwe parliament in 2004 and opened its doors to 14 pioneer students in the faculty of Agricultural Sciences in August 2005.

8.12 Catholic University

8.12.1 The Catholic University is a self funding institution which was established in 1998. The Bulawayo campus was opened in 2014. At inception the University had 2 Faculties (Faculty of Commerce: with 1 department - Business Management and IT and Faculty of Humanities: with 2 departments - Arts & Theology). Currently we have 3 Faculties (not 7) i.e. Commerce (with 3 Departments - Business Management; IT; Accounting); Humanities & Social Sciences (with 3 departments; Arts, Development Studies; Theology) and Education (with 1 department -Education).

8.12.2 There are plans to introduce additional degree programs such as Bachelor of Education in IT, Bachelor of Banking and Finance, Bachelor of Economics and Bachelor of Law. In addition to the undergraduate degree programs on offer short courses in project management monitoring & evaluation, applied research methodology, church administration, migration and international relations, geographic information systems and remote sensing, computer applications and packages, business administration, NGO management, chaplaincy, disaster management, peace building studies and Global MBA in impact entrepreneurship.

8.12.3 The first graduates from the Catholic University were in 2016 (13) and in 2017 there were 50. To date 73 students have graduated from the Catholic University. Enrolment at the University is currently at 704 and all the students are undertaking undergraduate degree programs and they are all Zimbabweans. Yearly enrollment at the University is 150 students per year on average.

8.12.4 At Inception the University had a staff compliment of 5 Academic staff and 3 administrative staff which has since increased to 36 academic staff and 20 administrative staff and they are all Zimbabweans.

8.12.5 Infrastructural developments at the campus consists of 1 staff residence, 3 student hostels with a capacity to accommodate 108 students, a chapel, 10 lecture rooms, dining room, a laboratory, a library and cafeteria.

8.13 The Zimbabwe School of Mines

7.13.1 The Zimbabwe School of Mines is a unique, dynamic and vibrant mining training Institution that was formed by a Presidential Charter in 1994 although its existence dates back to 1926 where it was operating from Gifford High School.

8.13.2 In 1934 the School of Mines was moved from Gifford High School to be under the Bulawayo Technical School. In 1994 The Zimbabwe School of Mines moved to the current premises in Killarney after obtaining its own Presidential Charter to run as a separate entity which serves all counties in the SADC region.

8.13.3 To-date there is no other infrastructure in Bulawayo or anywhere else. However, there are plans which are at an advanced stage to have centers in the following towns/cities:

- ❖ Mutare – Gemology center.
- ❖ Msipani (Zvishavane) – Small Scale & Artisanal miners center/Platinum research center.
- ❖ Bulawayo (along Harare road) – Mine Rescue Center.

8.13.4 At inception in 1994 there was 1 (one) department, i.e. Mining but Currently the number of departments has since increased to 6 (six) departments as follows:

- ❖ Mining Geology.
- ❖ Mine Surveying.
- ❖ Mining.
- ❖ Mineral Processing and Extractive Metallurgy.
- ❖ Metallurgical Assaying.
- ❖ Mine Ventilation and Environmental Engineering.

8.13.5 The School has also developed short courses which vary from time to time. Plans are underway to develop more departments, e.g. the diamond, cutting and polishing course, coal bed methane course. In addition the school plans to introduce the post graduate degrees, e.g. B Tech level.

8.13.6 The institution mainly offers full time study to students at the following levels; National Certificate, National Diploma and Higher National Diploma in mining related courses/disciplines. Certificates are also issued for all short courses. However, there has been an introduction of a one year block release course in some of the disciplines.

8.13.7 At inception in 1926 the mining school then Bulawayo Technical School had s staff compliment of 5 lecturers and 39 students. Enrolment at the institution has been on the increase as shown in the table below:

Table 42: Student enrolment over the past six (6) years; 2012 – 2018

Discipline (NC - HND)	Mining Geology	Mining	Mine Surveying	Mineral Processing & Extractive Metallurgy	Met. assaying	Mine ventilation & environ. Engineering	Totals
2012	99	84	90	84	38	0	395
2013	152	155	142	137	52	0	638
2014	152	150	140	157	52	34	685
2015	142	143	113	150	60	27	635
2016	180	185	146	185	52	49	797
2017	210	213	133	207	43	42	848
2018	215	263	111	223	41	58	911
TOTALS	1 150	1 193	875	1 143	338	210	4 909

Source: School of Mines & Field Surveys

8.13.8 As an institution which had focus to train students from around the SADC and beyond, the mining schools has is still playing its role. However, overall, there has been a decline in the number of foreign students enrolled at the Zimbabwe School of Mines. The table below shows enrolment of international students over the past six years.

Table 43: Enrolment Statistics of foreign students for the past six (6) years: 2012 – 2018.

Country	2012	2013	2014	2015	2016	2017	2018	Totals
Angola			1	1				2
Botswana	2	2	2	2	2	1		11
Equatorial Guinea				12	10	10	9	41
Gambia							1	1
Namibia	56	59	44	31	9	5	1	205
South Africa						1	1	2
Totals	58	61	47	46	21	17	12	262

Source: Zimbabwe School of Mines & Field Surveys

8.13.9 The School of Mines is making a large contribution towards the production of skilled manpower. The number of graduates who have been produced at the school to serve the mining industry to date is shown in the table below.

Table 44: Graduation Statistics over the past 5 years

YEAR	TOTAL GRADUATES (ND & HND)
2014	155
2015	152
2016	172
2017	185
2018	260

Total	1 839
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Source: Zimbabwe School of Mines

8.13.10 The School of Mines has a staff compliment of sixty-eight (68) staff members. All the members of staff are Zimbabweans.

Table 45: Staff Compliment at the School of Mines

Division / Section	Staff Compliment
Senior Management	5
Management (H.O.D's)	6
Senior Lecturers	3
Lecturers	9
Section Heads	11
Technicians	8
Clerks, Support Staff, Security, General Hand.	26
Total	68

Source: Zimbabwe School of Mines

8.13.11 In terms of physical and social infrastructural development the Zimbabwe School of Mines infrastructure has the following infrastructure;

Table 46: Social and Physical Infrastructure at the Zimbabwe School of Mines

Existing Social/Physical Structure	Number
Conveyor belt (Main gate)	1
Guard Room	1
Staff quarters / residence	6
Guest House	1
Hostel – accommodates 86 students	1
Dining Hall and kitchen	1
Administration block	1
Wooden cubicles (library, stores, assets and human capital offices)	2
Football pitch	1
Lecture rooms (5 blocks)	8
Laboratories (Mining, Chemistry, Geology, Survey, ICT, Metallurgy, Assay)	7
Academic block (lecturing staff offices)	1
Auditorium	1
Fire Assay Storeroom	1
Works department station	1
Electrical meter storeroom	1
Recreational facility room	1
Building material storeroom	1

Source: Zimbabwe School of Mines

8.13.12 There are some outstanding developments as per the Zimbabwe School of Mines Master Plan. These include;

- Clinic construction.
- Library and Registry block.
- 2 x Hostels.
- Ceremonial hall.

8.13.13 The main challenge being experienced by the Zimbabwe school of Mines is funding for developmental projects under the current challenging economic environment and dwindling foreign enrolment due to varied reasons befalling Zimbabwe. The School is in dire need of land for student accommodation and sporting facilities around the Killarney areas to compliment growth of the School over the years.

8.14 Hillside Teachers College

8.14.1 Hillside Teachers college is a secondary school training college which was established in 1956. The teachers college offers training in various specialist subjects to secondary school teachers. At inception the College had 2 departments but these have since increased to ten (10) namely Art Craft and Design ,Theory of Education, English, Geography, Physical Education, Mathematics, Science, Music, Professional Studies and History.

8.14.2 At Inception the college had an initial enrolment of 120 per annum but this has since increased over the years. The current enrolment is 1 500. The College offers Diploma as well as degrees on a block release. Over the past five (5) years the college has offered 3 779 diplomas and twenty two (22) degrees as shown below.

Table 47: Number of Graduates at Hillside Teachers College over the past 6 years

Year	Number of Graduates
2012	1017
2013	576
2014	576
2015	511
2016	588
2017	511
Total	3 779

Source: Hill side Teachers College

8.14.3 In terms of Social/Physical infrastructural developments at Hillside Teachers college the following has been developed.

Table 48: Social and Physical Infrastructure at Hillside Teachers College

Existing Social/Physical Structure	Number
Student hostels – accommodates 699 students	6
Guard Room	1
Staff quarters / residence	4
Dining Hall and kitchen	1
Administration block	1
Sports area and gym	1
Lecture rooms	11
Laboratories	13

Source: Hillside Teachers College

8.14.4 The college has plans to construct the following projects in future; classroom blocks with 10 rooms each, science laboratory with a capacity of 100 students, lecture theatre accommodating 500 students, extension of the administration office to accommodate 10 offices, 30 lecture's offices, extension of the library, chapel with a capacity of 100, college bookshop, 20 units of staff accommodation as well as 7 flatlets, sports pavilion with ancillary facilities such as ablution blocks with showers, change rooms, first aid room, kitchen as well as a lounge/cafeteria, 2 student hostels with a capacity of 100 each, construction of an incinerator, agricultural tool shed and store room with change rooms and ablution facilities and an asset tool shed.

8.15 United College of Education

8.15.1 United College of Education (UCE) is a primary school training college which was established in 1968. The teachers college offers training to primary school teachers. At inception the college had three (3) departments namely music, infants and general but these have since been increased to seven (7) to include Education, Early Childhood Development, Sciences and Practical Subjects, Humanities and Languages. In addition, UCE plans to separate special needs education from the department of Education so that it becomes a stand alone department and offer special needs education course on block release as opposed to the current full time program which is offered for sixteen months.

8.15.2 At Inception the college had an initial enrollment of 113 students per annum but this has since increased over the years. The current enrollment is 739 constituting of 732 for ECD and general education and 7 special needs. The College offers Diploma a 3 year diploma program. Over the past five (5) years the college has offered 639 diplomas to the graduates as shown in the table below.

Table 49: Number of Graduates over the past five years

Year	Number of Graduates
2013	246
2014	364
2015	455
2016	459
2017	639
Total	2 163

Source: United College of Education

8.15.3 In terms of Social/Physical infrastructural developments at the United college of Education the following has been developed.

Table 50: Existing Social and Physical Infrastructure at the United College of Education

Existing Social/Physical Structure	Number
Student hostels – accommodates 600 students	6
Guard Room	1
Staff quarters / residence	6
Hall	1
Dining Hall and kitchen	1
Administration block	1
Sports area and gym	1
Lecture Theatre	1
Laboratories	3
Library	1
Church	1

Source: United College of Education

8.15.4 The college has plans to construct the following projects in future; early childhood development centre, sports pavilion, staff houses, new administration block, lecture rooms, multi purpose hall, student hostels. Computer science laboratories, a block of flats, EMT room and Tartan track.

8.16 Bulawayo Polytechnic

8.16.1 The Bulawayo Polytechnic was established in 1927 and is the second largest Polytechnic in Zimbabwe. It has two (2) campuses, the main campus is located at the corner of 12th Avenue and Park road in Suburbs while the city campus is situated between 11th and 12th avenue along George Silundika in the city centre. The institution prides itself in being a provider of highly empowered human capital through scientific, Technical, Vocational Education and Training for sustainable socio economic development. The institution offers various programs both full time and on a part time basis.

8.16.2 There are three (3) Departments namely the Department of Applied Art and Design, Department of Automotive Engineering and the Department of Adult and Continuing education and five (5) Divisions at the Bulawayo Polytechnic. The Divisions are the Division of Applied Science and Technology, Division of Commerce, Division of Civil and Construction Engineering, Division of Electrical Engineering and the Division of Mechanical Engineering. There are some courses on offer under Parallel Programme especially the City & Guilds Courses. Training at Bulawayo Polytech is offered at the following levels: Bachelor of Technology Degree Programmes, Higher National Diploma, National Diploma and National Certificate.

8.16.3 In terms of Social/Physical infrastructural developments at the Bulawayo Polytech the following have been developed.

Table 51: Existing physical Infrastructure at the Bulawayo Polytech

Existing Social/Physical Structure	Number
Student hostels – accommodates 556 students	12
Guard Room	1
Staff quarters / residence	
Dining Hall and kitchen	1
Administration block	1
Sports area	1
Halls	3
Library	1
Lecture rooms	152
Laboratories	13

Source: Bulawayo Polytechnic

8.16.4 The college has plans to rehabilitate and construct the following projects in future; multi purpose hall, sports facilities, solar water heating plant, incinerator as well as upgrade the water and plumbing systems.

8.17 School of Hospitality and Tourism

8.17.1 The school of Hospitality and Tourism was established in 1963 as a Division of the Bulawayo Polytechnic. At inception the department had a student enrolment of 12 and 1 lecturer though its maximum capacity was 40 students. A complex for the school was constructed in 1993 within the Polytechnic premises. The school has established a satellite campus in Harare at the Management Training Bureau old site. The school offers conventional training in Tourism and Hospitality Management, Food and Beverage Management, Professional Cookery and Bakery studies. The various courses are being offered up to Higher National level though informal sector support is being offered to those who do not possess the requisite qualifications. Training at the hotel

school is being offered on a full time, part time basis and block release to suite the needs of the market.

- 8.17.2 In 1997 – 98 the school was earmarked for commercialization in line with government policy to ensure revenue generation from operations and to be able to retain the funds in the school. In an effort to enhance student training, the school established Hotel St Patrick's in 2011 as a business unit of the school. Enrolment at the Bulawayo campus is about 700 students and 40 lecturers while the Harare satellite campus has an enrolment of about 100.

8.18 Westgate Industrial Training College

- 8.18.1 Westgate Industrial Training College (WITC) was established in 1983 by the Ministry of Manpower Planning and Development. The institution was set up to address the needs of industry viz a viz training skilled employees from unclassified to class one.
- 8.18.2 At inception there was only one (1) department, Automotive engineering but now there are three (3) departments automotive, electrical and mechanical engineering. There are four (4) main trades which are being offered at WITC on a three (3) month full time basis namely automotive engineering, electrical engineering, mechanical engineering and the fabrication section. There are plans to introduce civil and construction department. At inception WITC had an enrolment of 24 but at the time of the survey WITC had a total enrollment of 800. These courses are offered at National certificate level. The staff compliment at the institutions as at August 2018 is 57 consisting of 21 lecturers, 13 administration staff, 6 kitchen staff, 7 security guards, 6 grounds man and 4 working at the stores.
- 8.18.3 In addition to the above courses being offered on a full time basis there are short term which are being offered in the above trades for a duration of twelve (12) Saturdays.
- 8.18.4 Infrastructural developments at WITC constitute of 2 hostel for males and females each with an occupancy capacity of 40 students, 3 staff residencies, a machine shop, kitchen, dining hall and a guard room. There exists the electrical engineering block, conference room, computer laboratory and classroom, automotive engineering and fabrication section, administration block and the classroom block. Outstanding projects as per college master plan include 1 student hostel, civil and construction engineering workshop, library and an administration block.
- 8.18.5 There major challenges being experienced be WITC are financial challenges to facilitate the development of some projects such as a hostel, civil and construction engineering workshop, library and administration block. In addition the college does not have any playfields for students.

CHAPTER 9

9.0 PRIMARY HEALTH CARE HEALTH FACILITIES

9.1 INTRODUCTION

9.1.1 The United Nations' (UN) agency on health, the World Health Organisation (WHO) observes that "better health is central to human happiness and well-being. It also makes an important contribution to economic progress, as healthy populations live longer, are more productive, and save more". An unhealthy population has huge adverse implications for city development. Another important consideration in development planning is the correlation between health and development which is that health impacts on development and similarly, development impacts on health. Urban planning has an obligation to ensure that better health is provided for citizens and should impact positively for the development of the city and country and that oppositely, development planning has an impact on the achievement of health goals. Put simply, health promotes development and development promotes health. Whereas Baron (2009) notes that good spatial planning helps improve the liveability of areas, this study looks at other built environment disciplines and their relationships with the health sector.

9.2 THE LEGISLATIVE FRAMEWORK

9.2.1 The Zimbabwean Constitution

9.2.1.1 The Constitution of Zimbabwe explicitly provides for the right to health care in Section 76, sub-section 1 to 4 that:

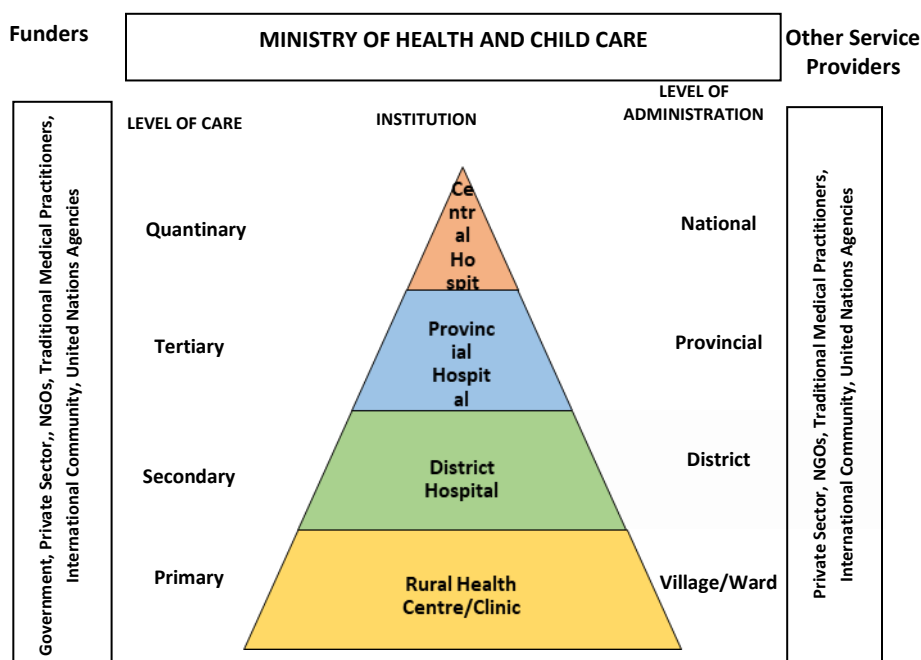
- (1) every citizen and permanent resident of Zimbabwe has the right to have access to basic health-care services, including reproductive health;
- (2) every person living with a chronic illness has the right to have access to basic healthcare services for the illness;
- (3) no person may be refused emergency medical treatment in any health-care institution, and
- (4) the State must take reasonable legislative and other measures, within the limits of the resources available to it, to achieve the progressive realization of the rights set out in this section

9.2.1.2 The Constitution further provides, in Section 77 that every person has a right to safe, clean and potable water, and sufficient food (Food Security, Quality and Safety). These rights are directly related to peoples' health as it not possible to divorce the living

conditions of people from their health risks and status. This national health strategy is indeed subordinate to these constitutional provisions and the State has the responsibility to create a conducive environment in which it is possible for all people in Zimbabwe to access basic health services whenever they need them.

9.3 PRIMARY HEALTH CARE

- 9.3.1 Primary Health Care service in Bulawayo are being provided to the public through Government and Local authorities institutions playing a dominant role. However, the majority of the health facilities especially clinics are managed by the City Council. Health services provision is complemented by the private sector, NGOs and traditional medical care.
- 9.3.2 Interwoven into this health care nexus is the international community and the United Nations' specialized agency on health; the World Health Organization and its associated UN agencies. There is a wide range of multi-sectoral and interdisciplinary responsibilities which have an impact on city planning and healthcare service delivery. This chapter endeavours to explore the links and roles of relevant stakeholders and how they impact on the delivery of primary health care in the city of Bulawayo.
- 9.3.3 The hierarchy, type of facility and administrative arrangements are within the public health care system are shown on Figure 19. At the apex of the facility hierarchy is the central hospital, below it is the provincial hospital, district hospital and the rural health centre and clinic. This also serves as a referral hierarchy of health care from the primary level up to the quaternary level of care. The public health care system hinges on the public sector as the main health care provider for the majority of the population in the city.

Figure 19: Health Care System in Bulawayo

Source: Job Jika and Associates

9.4 MINISTRY OF HEALTH AND CHILD CARE

9.4.1 The Ministry of Health and Child Care is charged with the responsibility to set out policies and provide a legal enabling environment for the operation of the various actors. Its mandate is to promote a healthy citizenry and a quality of life of the people.

9.4.2 Among other functions of the Ministry are;

- the identification and analysis of the priority health challenges and needs;
- formulating health policy and setting national standards and guidelines;
- improvement of the national health information system;
- monitor implementation of national health plans, compliance to national policies and guidelines;
- mobilise and allocate resources and institute expenditure;
- mobilise and allocate resources;
- monitor disease trends, quality of care and population health status;
- monitor adherence to pharmaceuticals policies, medicines and drugs quality, availability and distribution of medicines and drugs;
- health planning and strategy development;

- coordinate the training and development of health managers;
- create a conducive regulatory environment for both public and private providers;
- administer the enabling acts of Parliament in implementation of health care services;
- national health related research;
- ensure inter agency co-ordination in the context of health delivery; and
- liaise with international health organisations and donor agencies

9.5 BULAWAYO CITY COUNCIL

9.5.1 Bulawayo City Council performs its health service delivery mandate through the Department of Health Services' personal health and environmental directorates. It operates clinics and conducts community-based health services.

9.5.2 The Department of Health Services personal health directorate performs the following functions:

- i) Outpatient care
- ii) Maternity care
- iii) Child and adolescent health care
- iv) Prevention of parent to child transmission of HIV
- v) Co-ordination of community participation for health initiatives.

9.5.3 The environmental health directorate offers the following services:

- i) Health inspections
- ii) Cleaning services
- iii) Pest control
- iv) Cemetery and crematorium management

9.5.4 Private Health Care

The private sector plays a significant role in primary health care service provision. There are private hospitals, private clinics and surgeries.

9.5.5 Traditional Medical Care

Regulated through the Zimbabwe National Traditional Healers Association (ZINATHA), traditional medicines and drugs has risen to prominence in health care service delivery in the city. This service is rendered predominantly to the black African population as an ingrained aspect of African culture.

9.5.6 United Nations Universal Health Development Goals

9.5.6.1 The United Nations plays a critical and supportive role in promoting good health globally. It works through a network comprising the World Health Organisation at the fore and supported by other UN agencies. These include the General Assembly and the Economic and Social Council, Joint United Nations Programme on HIV/AIDS (UNAIDS); United Nations Population Fund (UNFPA) in support of reproductive, adolescent and maternal health; and the United Nations Children's Fund (UNICEF). The United Nations has set targets in the form of goals to be achieved at specific times and most prominently, the 2015 Millennium Development Goals and the 2030 Agenda for Sustainable Development Goals.

9.5.7 2015 Millennium Development Goals

9.5.7.1 The United Nations set eight Millennium Development Goals (MDGs) – of which the health-related goals seek to eradicate extreme poverty and hunger; reduce child mortality; improve maternal health and to combat HIV/AIDS, malaria and other diseases by 2015. An evaluation is made to establish the extent to which these goals were met or what plans are in place towards the attainment of these goals in Bulawayo.

9.5.8 2030 Agenda for Sustainable Development Goals

8.5.8.1 The United Nations has now adopted the 2030 Agenda for Sustainable Development Goals (SDGs). The relevant goal in the health sector is Sustainable Development Goal 3 (SDG 3) which is to ensure healthy lives and promote the well-being for all at all ages. The following are the sub-goals or goals within this goal:

- i) By 2030, reduce the global maternal mortality ratio to less than 70 per 100 000 live births;
- ii) By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births;
- iii) By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases;
- iv) By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being;
- v) Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol;
- vi) By 2020, halve the number of global deaths and injuries from road traffic accidents;

- vii) By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes;
- viii) Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and drugs and vaccines for all;
- ix) By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

9.6 HEALTH ASSESSMENTS APPROACHES

9.6.1 The different role-players and their functions, mandates, goals and targets are outlined with a view to assessing their performance in fulfilling their mandates or achieving the set targets. As such, analysis is made on the underlying reasons for non-accomplishment thereof and recommendations to overcome impediments identified.

9.6.2 The study includes four major assessments approaches based on health and land use data, including:

- i) Community Health Assessment: highlights major health trends in morbidity (the incidence of disease or being unhealthy within a population) and mortality (the number deaths or death rate in the population and the underlying reasons.
- ii) Health Systems Trends Assessment: looking at the changes in community health over time in the city
- iii) Capacity of Resources and Gap Assessment: in terms of the utilisation and availability of resources in the health care system (including hospitals, clinics, specialised facilities emergency medical services, in the city;
- iv) Spatial Planning and Land Use Assessment: the assignment of land uses to health facilities in terms of demand versus supply and the spatial dynamics in medical facilities and of course the future state of the city's medical scape.

9.7 SPATIAL DISTRIBUTION OF HEALTH FACILITIES

9.7.1 This section below deals with the spatial distribution of health facilities within the city in an effort to appraise spatial equity or inequality within the context of spatial planning and land use management.

9.7.2 Hospitals

9.7.2.1 The colonial spatial structure (lower population density in east and higher population density in the west) is still evident in Bulawayo's spatial structure. Most higher order health facilities are located in the eastern part of the city with a limited inclination towards the western part of the city on the western edge of Bulawayo Central Business

District (CBD). At the apex of the primary health care delivery hierarchy in Bulawayo there is the United Bulawayo Central Hospitals, Ekusileni, Premier hospital and all Saints children's hospital located in the eastern periphery of the CBD, Ingutsheni Central Hospital is located to the south of the CBD. Mpilo Central Hospital and Thorngrove Hospital are located on the western edge of the CBD. A summary of the major health facilities in the city is shown on Table 51 below.

Table 52: Major Health Facilities in the City

Name of Health Facility	Year of Establishment	No of beds	Staff Establishment	Existing Staff Compliment	Catchment Area
All Saints Children's Hospital	2016	30	26	22	Bulawayo Metropolitan Province
Mpilo Central Hospital	1954	1 866	1 620	1 519	Bulawayo Metropolitan Province Matabeleland North and South Provinces and Midlands Provinces.
United Bulawayo Hospitals	1937	650	1 384	1 243	Bulawayo Metropolitan Province, Matabeleland North and South Provinces, Masvingo and Midlands Provinces
Engutsheni mental Hospital	1908	708	136	132	National referral hospital
Mater- Dei	1953	169	235	235	Bulawayo Metropolitan

					Province.
Premier Hospital	2006	42	53	53	Bulawayo Metropolitan Province, Matabeleland North and South Provinces.
Corporate 24	2016	30	-	100	Bulawayo Metropolitan Province, Matabeleland North and South Provinces, Masvingo and Midlands Provinces.
Ekusileni	2004				Not yet Operational
Thorngrove	1941	200	65	15	Bulawayo Metropolitan Province, Matabeleland North and South Provinces.

Source: *Job Jika & Associates*

9.7.3 Mpilo Central Hospital

9.7.3.1 Mpilo Central Hospital was established in 1954 and is a 1250 bed referral hospital which not only services Bulawayo, but acts as a major referral centre for Matabeleland North, greater Bulawayo and Midlands Provinces. The hospital is located off the Old Falls Road in the high density suburb of Mzilikazi. It offers a wide variety of services including dental, oncology, surgery, orthopaedics, obstetrics and gynaecology, ophthalmology, diagnostic (radiology and laboratory), medicine, renal dialysis. Mpilo runs a multi

disciplinary nurses training school for students undertaking courses in Radiology, Midwifery and General Nursing.

9.7.3.2 The hospital is experiencing challenges which are mainly a result of the extended economic depression which has affected not only the physical infrastructure but also technical installations and equipment. The country has not kept pace with global development and technological advances in various sectors and the medical field has not been spared. There is high staff turnover in health personnel and specialists owing to the economic challenges facing the country and subsequently, Mpilo hospital faces understaffing problems.

9.7.4 United Bulawayo Hospitals

9.7.4.1 The United Bulawayo Hospitals (UBH) is located next to Woodlands suburb along the old Esigodini Road. The hospital acts at the provincial and referral centre for Matabeleland South and the Midlands Province. There are seven (7) hospitals which comprise the UBH with various specialities. It was established in 1937, the Bulawayo United Hospitals is one of three referral hospitals servicing Bulawayo, Matabeleland North and South Provinces and Midlands Provinces. The hospital is a conglomerate of the following hospitals:

- i) Main Bulawayo Central Hospital;
- ii) Lady Rodwell Maternity Hospital;
- iii) Richard Morris Hospital and
- iv) Robbie Gibson Hospital

9.7.4.2 It is a 650 bed hospital offering ophthalmology, surgery, medicine, obstetrics, gynaecology and school of nursing. The hospital has not been immune from the economic downward spiral that has adversely hit medical institutions and the subsequent deterioration in medical services in the in the city and its service area.

9.7.4.3 The major challenges facing the hospital include inadequate funding by government; old and obsolete capital equipment; lack modern state of the art machines and general medical supplies. The institution has a shortage of specialist staff e.g. neurosurgeons, paediatricians, anaesthetists and a pathologist as well as other staff members in the medical field.

9.7.5 Ingutsheni Central Hospital

9.7.5.1 Ingutsheni Central Hospital is the largest and oldest national Psychiatric referral centre in the country. The hospital can accommodate 700 patients with mental health challenges. The number of patients at the institution is increasing with no proportionate improvement in the creation of an enabling environment for the institution to cater for the needs of the mentally challenged patients. Compounding the increase in the

number of patients at the institution is the phenomenon of Ingutsheni becoming a permanent home for some patients. Some mental patients find it difficult to adjust or be accommodated outside specialised care hence there is a need for proactive steps to be taken to either expand the institution, prevent over-population, provide more institutions of this nature, etc.

9.7.5.2 Some of the challenges faced by Ingutsheni Mental Hospital include

- i) Inadequate funding - Health care at the institution is free and is dependent on allocation from the national fiscus. Treasury disbursements to the institution are erratic and inadequate. Inadequate budgetary provision affects the operations and capital infrastructure development at the institution;
- ii) Understaffing - The ideal nurse to patient ratio is 1:1 while the existing ratio is 1:3. This is not ideal in an institution housing people with mental challenges and who require a lot of nursing attention.
- iii) Shortage of drugs – This is critical in giving the providing care to patients as provision of drugs is essential to patients some of whom sedatives are requisite in calming them down.
- iv) Understaffing - The ideal nurse to patient ratio is 1:1 while the existing ratio is 1:3. This is not ideal in an institution housing people with mental challenges and who require a lot of nursing attention. Generally, Zimbabwe has only 14 psychiatrists to cater for the 1.3 million mental patients.
- v) Shortage of drugs – This is critical in providing care to mentally challenged patients as provision of drugs is essential to some patients who rely on sedatives to calm them down.

9.7.6 Public Institutional Primary Health Care

9.7.6.1 The Zimbabwe Defence Forces, the Zimbabwe Republic Police and Zimbabwe Prisons and Correctional Services namely; Lookout Masuku Barracks, Khami Maximum Prison Complex, Bulawayo Prison and Ross Camp have health facilities within their institutions. Some of these facilities are not compliant with the standards set by the Health Professions Council notably: Khami Maximum Prison Clinic and Bulawayo Prison Clinic. Non-compliance with minimum standards for operation of clinics be they public or private poses a threat to primary health care. The situation becomes dire when standards are compromised in institutions dealing with in-mates such as prisons which are oftentimes characterised by congested living conditions and exposure to infections.

9.7.6.2 The problems experienced at public health institutions in the city are similar. The facilities are experiencing funding challenges, understaffing shortage of medicines and drugs. This has adversely affected the quality of primary health care service delivery in the city.

9.7.7 Private Healthcare Services

9.7.7.1 The private sector, surgeries, private institutions, parastatals, non-governmental organisations and traditional medical care play an important role in the provision of primary health care in the city. The private hospitals in Bulawayo are located in the eastern part of the city and Bulawayo CBD namely, Mater Dei Hospital located in Malindela, Premier Service Medical Investments (PSMI) Hospital in Hillside and Corporate 24 is located in the CBD and the yet to be operationalised Ekusileni Medical Centre is also located in Hillside. Ekusileni Medical Centre is set to operate in 2019. These facilities are within easy reach of each other in the eastern part of the city. Other institutions or companies such as the National University of Science & Technology (NUST), National Railways of Zimbabwe (NRZ), Hillside Teachers College, United College of Education, Ceshhar and Schweppes. Private Clinics and surgeries are located throughout the city though mostly are mainly concentrated in the CBD.

9.7.8 Mater Dei Hospital

9.7.8.1 Mater Dei Hospital is situated in Malindela and is administered by a Roman Catholic Board. This private hospital is part of primary health care delivery in Bulawayo which was established from a 50 bed hospital in 1953 to a 169 bed hospital in 2018. The hospital has undergone major upgrades over the years building an Intensive Care Unit (ICU), a paediatric ward and an Accident and Emergency and Operating Theatre Suite. The hospital offers a wide range of health care services including ordinary dental and ophthalmic surgery, laboratory services, physiotherapy, radiology and renal-haemodialysis facilities. The nurse to patient ratio of 1:1 in the ICU and 1:5 in the wards.

9.7.8.2 Like most health institutions in the country some of the challenges being experienced at the hospital include; inadequate funding as it is dependent on donor funding, obsolete and old equipment, shortage of medicines and drugs as a result of the economic depression and shortage of foreign currency.

9.7.9 Premier Service Medical Investments (PSMI) Hospital

9.7.9.1 Premier Hospital was established in 2006 and located in Hillside suburb. This hospital is part of the major primary health care delivery in Bulawayo. It is a 42 bed hospital as per design. The hospital offers a wide range of health care services except for pharmacy services and radiology which are still to be established. The nurse to patient ratio at the hospital is 1:7.

9.7.9.2 Like most health institutions in the country the challenges being experienced at the hospital are high cost of drugs and a shortage of foreign currency

9.7.10 Ekusileni Medical Centre

9.7.10.1 This is a private hospital which was the brain child of the late Vice President Dr J. M.N. Nkomo and has been lying idle for 17 years. Concerted efforts are underway to operationalise the facility in 2019. The facility is expected to be a multi-disciplinary specialised hospital encompassing a maternity wing, theatres, Intensive Care, dental, high dependency and neo-natal units, etc. The hospital will use modern state of the art equipment after the earlier deployment of obsolete equipment was stopped by government.

9.7.11 Corporate 24

9.7.11.1 Corporate 24 is situated in the City Centre. The hospital was established in 2016 and has become part of the major primary health care delivery in Bulawayo. The hospital was established after renovations were undertaken on a commercial building in the city to establish the 30 bed facility. Services being offered at the hospital include an Intensive Care Unit (ICU), laboratory, a maternity ward, paediatric ward and an Accident and Emergency and Operating Theatre Suite. The hospital does not have full time doctors, but they work closely with some private practitioners (specialists) who are called to attend to cases. The hospital is awaiting for registration certificate to operationalize the radiology and pharmacy departments.

9.7.8.2 Like most health institutions in the country some of the challenges being experienced at the hospital include; high staff turnover and a shortage of drugs as a result of the economic depression and shortage of foreign currency.

9.7.12 All Saints Children's Hospital

9.7.12.1 All Saints children's Hospital is a 24 hour pediatric health facility which is located in Hillside suburb. The private hospital is part of primary health care delivery in Bulawayo which was established became operational in September 2016. All saints is 30 bed hospital (25 coats and 5 for teenagers). The hospital was established as a result of a change of land use which resulted in the establishment of an administration block, private rooms, shared wards, staff tea room, staff changing rooms, visitors toilets, milk kitchen, scullery, pantry and suckion equipment for oxygen. The hospital also works closely with strategic partners in the provision of services such as X – ray (Mater dei) and laboratory (Lancet).

9.7.12.2 There are plans to develop a surgical wing (surgical wing) include a casualty, admit for observation and x ray facility

9.7.12.3 Like most health institutions in the country some of the challenges being experienced at the hospital include; shortage of medicines and drugs as a result of the economic depression and shortage of foreign currency.

9.7.13 Private Clinics and Surgeries

- 9.7.13.1 There are 57 private clinics which are registered with the Health Professions Council. These are largely concentrated in the Central Business District of Bulawayo where 40 of these facilities are located in the CBD, 12 are located in the western high density suburbs while 5 are located in low density areas. These range from private surgeries, maternity facilities, paediatric, specialist physician practices, and orthotetics and gynaecology.
- 9.7.13.2 It is encouraging to note that the private sector is extending its primary health care service to the high density areas. Some private health facilities have been established through the special consent of council while some have been proactively designated through spatial planning. Their affinity for the CBD may be due to the lure of accessibility of the city centre to most parts of the city.
- 9.7.13.3 Challenges being experienced by private institutions and surgeries are similar and all have had an adverse effect on the effective and efficient delivery of primary health care in the city. These range from human resource gaps, obsolete infrastructure, shortage of drugs and medicine and lack of funding to equip and run health facilities effectively and efficiently.
- 9.7.13.4 These challenges were an impediment towards a significantly high impact drive in the attainment of the 2015 Millennium Development Goals, a situation largely attributable to the poor state of the economy for than a decade. There is a danger that should the socio-economic situation in the country not improve or deteriorate, the 2030 health sector Sustainable Development Goal 3 (SDG 3) which is to ensure healthy lives and promote the well-being for all at all ages would be unachievable.
- 9.7.13.5 The fact that health facilities have continued to perform some of their functions albeit over nearly two decades of progressive decay in infrastructure implies the resilience of the health infrastructure. However, a situation where adequate and requisite resources (human and financial) are not provided as required and where hospital infrastructure is not developed into state-of-the-art modern infrastructure is undesirable in attaining a developmental state of the City of Bulawayo in the short to long term.

9.7.14 Proposed Private Hospitals

- 9.7.14.1 The Bulawayo City Council has approved the development of three private hospitals in the city. Except for lower order facilities, there is no private hospital institution in the western high density areas of the city. However, Shandrilla Investments got approval to build a 100 bed hospital along Intemba Road in Pumula South while Veronicare plans to build an 80 bed hospital along Huggins Road in Luveve. These private health facilities would improve access to private health care in the western part of the city. The

establishment of health facilities is better guided and informed by comprehensive spatial planning in order to ensure rational spatial distribution, accessibility and viability of these medical institutions.

9.7.14.2 There are no higher order health care facilities located in the western part of the city where the majority of the population of Bulawayo resides. Save for Mpilo Central Hospital and Thorngrove Hospital closer to the CBD, there is therefore a gap in the provision higher order primary health care facilities in the high density residential area in the western part of the city. While these central hospitals are currently accessible to most of the population in the city, further outward growth of the city will render them inaccessible in future. Increased volume of traffic, higher transportation costs, poor transport infrastructure and a poor public and private transportation service are some of the factors that may militate against good interface between higher order health services and the majority of the residents. The current distribution of higher order facilities whose distribution is skewed in favour of the edge of the Central Business District needs attention as it does not only perpetuate spatial inequality in terms of distribution, but compromises geographic access to facilities.

9.7.15 Bulawayo City Council Health Services

Bulawayo City Council's Health Services Department offers primary health care and outreach services. There are twenty (20) clinics that are distributed mostly to the western side of the city as (16) of the twenty (20) municipal clinics are located in the high density suburbs while four clinics are located in other parts of the city. Pelandaba, Emakhandeni and Nkulumane clinics also offer dental services. Mzilikazi, Tshabalala offer day service for maternity patients while Nkulumane, Pelandaba, Luveve and Northend clinics offer a 24 hour service. Thorngrove Hospital is located in Thorngrove residential area and mainly caters for infectious diseases such as Tubercoulousis. Khambi clinic has an outpatient genitourinary training centre which caters for patients as far afield as Midlands, Matabeleland South and Matabeleland North. The council has an outreach programme to supplement inadequate service delivery to areas such as St Peters, Aisebly Farm, Nketa and Cowdray Park on a monthly basis. Table 52 shows the municipal clinics and respective populations served.

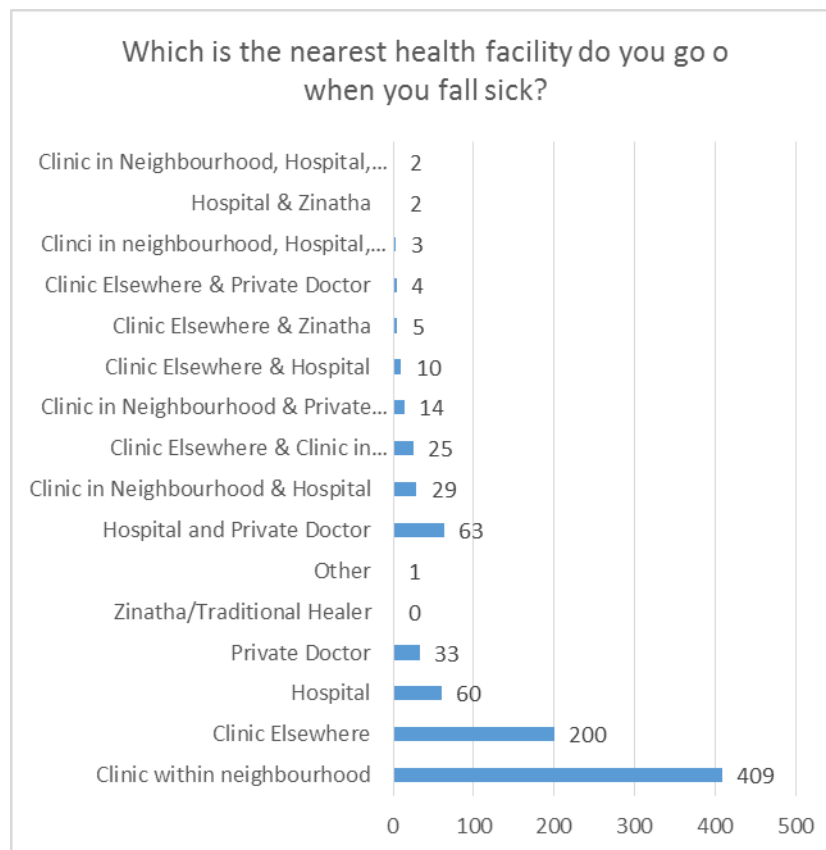
Table 53: Municipal Clinics and Population Served

	Clinic	Population Served
1	Magwegwe	55157
2	Nkulumane	54892
3	Nketa	47671
4	Cowdray Park	46946
5	Northern Suburbs	44437
6	Mzilikazi	43652

7	Princess Margaret	42589
8	Pumula	41659
9	Dr Shennan	32189
10	Pumula South	32066
11	Luveve	30872
12	Emakhandeni	30612
13	Entumbane	30314
14	Pelandaba	29679
15	Maqhawe	29492
16	Njube	29461
17	Tshabalala	29395
18	E. F. Watson	28721
	Total	679804

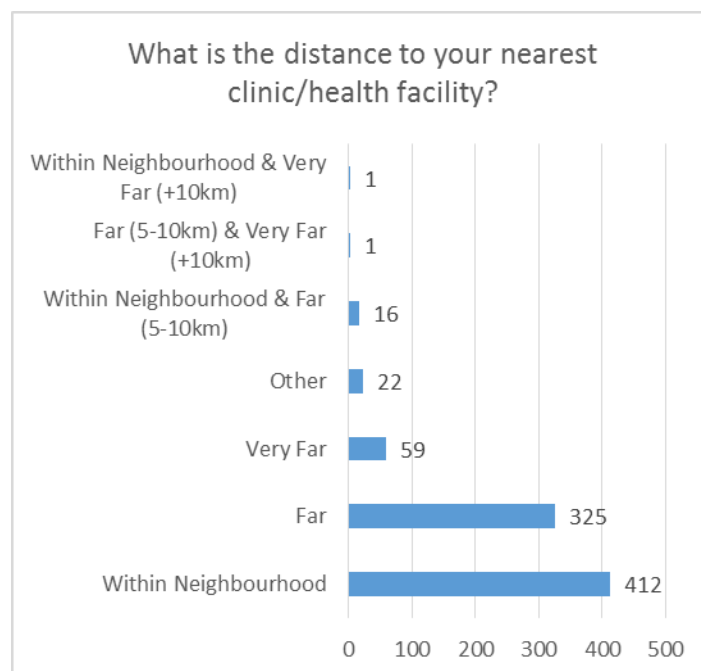
Source: City of Bulawayo

9.7.15.1 There is a fair spatial allocation of municipal clinics in the western parts of the city in the high density suburbs where most of the population resides. While this somehow promotes accessibility to health care in the western suburbs, it can hardly overcome the geographic fixity of existing higher order facilities and the friction of distance between the higher density population in the western part of the city and higher order health facilities to the east. Figure 20 below show responses in terms of access to the nearest health facility. The household results show that the majority of the respondents access health facilities within the neighbourhood. In areas where there is no provision of a health facility the respondents indicated that they can access a health facility elsewhere in the city. This collaborates the good distribution of health facilities within the city.

Figure 20: Provision of Health facilities in the City

Source: Job Jika & Associates

9.7.16 As shown in figure 21 below the majority of the respondents indicated that they access health facilities within their neighbourhoods. However, in areas where there is no provision of health facilities within the neighbourhood, respondents indicated that they access health facilities elsewhere. This may be attributed to the fact that while generally all services are offered in the council clinic, there are some clinics which offer specific types of services e.g. maternity and dental services are not being offered in all the health facilities.

Figure 21: Access to the nearest health facility

Source: Job Jika & Associates

9.8 STAFFING SITUATION AT THE CITY OF BULAWAYO HEALTH SECTOR

- 9.8.1 A summary of the staffing situation in the city is shown on Table 53 the detailed staffing situation is annexed to this document. The city is functioning at about 60 percent of the required staff complement at its health institutions. This takes a huge toll on the delivery of health services in the city.

Table 54: Staffing Situation at the City of Bulawayo Health Sector

Institution	Staff Complement	Existing Staff	Staff Shortage
Health Services Department			
Department of Health Services	38	23	15
Environmental Health Services	37	19	18
Clinics			
Khami Rd	25	17	8
Mzilikazi	22	15	7
Njube	22	11	11
Phelandaba	48	39	9
Pumula	23	12	11
Tshabalala	22	12	10
E.F. Watson	20	13	7
Magwegwe	23	14	9
Laveve	46	32	14

Nkulumane	51	38	13
Emakhandeni	24	16	18
Nothern Suburbs	44	22	22
Thongrove Hospital	68	31	37
Entumbane	22	14	8
Nketa	23	19	4
Princess Margaret Rose	15	12	3
Dr Shennan	11	7	4
Maqhawe	22	12	10
Pumula South	22	14	8
Cowdray Park	12	12	0
Khami Rd Pharmacy	5	0	0
TOTAL	645	404	246

Source: City of Bulawayo

9.9 TRADITIONAL HEALERS

8.9.1 Traditional healers are also operating in the city. They are operating from residential units especially in the high density residential areas. However, most of the traditional medicines in the city are sold at the main market “Mkambo” in Makokoba.

9.10 COMMUNITY HEALTH ASSESSMENT

9.10.1 Morbidity

9.10.1.1 An analysis of the incidence of disease (morbidity) and mortality (death rate in the population) are critical aspects of the master planning exercise considering that apart from better health being central to a human’s well-being, good health, free from disease, is an essential ingredient to the development of the city and the nation. Healthy populations live longer, are more productive, and save more while an unhealthy population inhibits development as development is people-driven.

9.10.1.2 Disease prevalence in Bulawayo in terms of the order of prevalence is as follows:

- a) HIV/AIDS related diseases
- b) Tuberculosis
- c) Hypertension
- d) Diabetes
- e) ARI
- f) Skin Conditions

9.10.1.3 It is of great concern that HIV/AIDS and Tuberculosis are topping the disease hierarchy especially considering that they are infectious diseases. The health sector in the city including the municipality, national government and other role-players have a huge responsibility in putting in place measures to reduce the prevalence of infectious diseases.

9.10.2 HIV Prevalence

9.10.2.1 The first AIDS death in Bulawayo was recorded in 1989. The incidence of HIV in Bulawayo stood at 6% between 1992 and 1994. The prevalence of HIV in the city continued to rise. According to the Demographic and Health Survey data (see Table 54 and Figures 22 (a) and (b) from 2005 to 2015, the prevalence of HIV among the 15 to 49 Age group increased from 16.8% in 2005 to 19.1 in 2010 after which it began to decline to 14.3% in 2015.

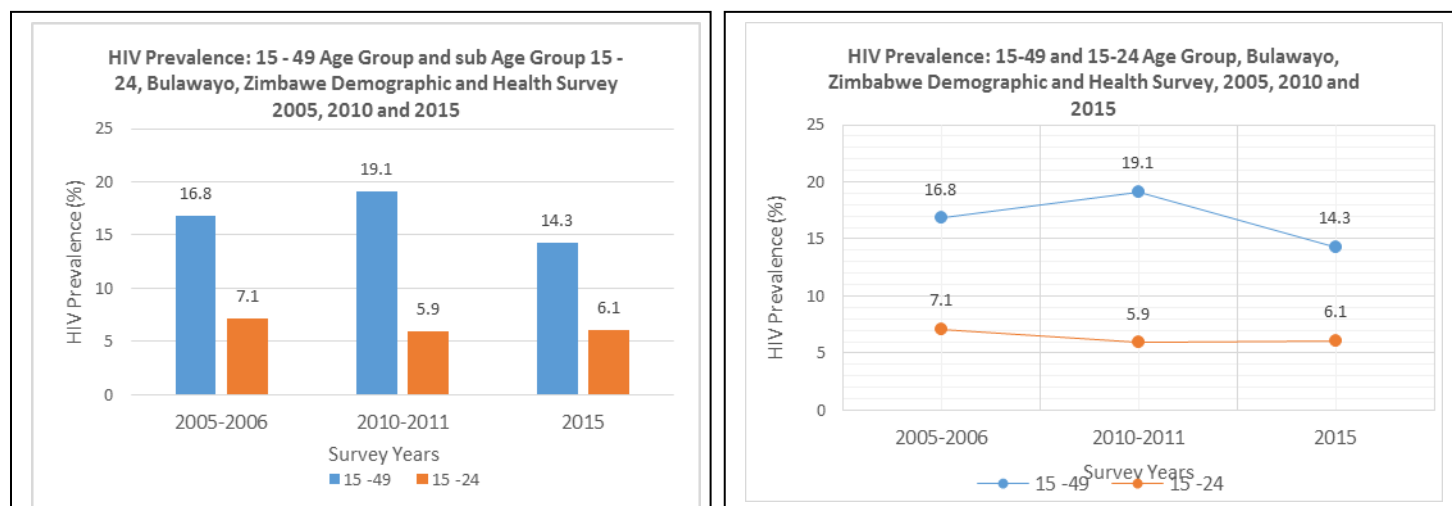
9.10.2.2 A closer look at HIV prevalence within this age group (15 to 24 years) shows that they made 7.1% (42% or about half) of the 1.8% of the 15 to 49 HIV positive age group in 2015. The cohort's contribution to HIV prevalence declined to a third of the 15 to 49 years age group surveyed sample in 2010. It is of concern that by 2015, that while HIV prevalence within the 15 to 49 years age group declined between 2010 and 2015, HIV prevalence showed a slight increase from 5.9% to 6.1 percent within the 15 to 24 year age group again making about half of the HIV positive population within the 15 to 49 years age group as shown on Figure 22.

Table 55: HIV Prevalence by Age and Sex: 15-49, 15-24 and 0-14 Age Groups

Age Group	Bulawayo									Harare			Zimbabwe		
	2005-2006			2010-2011			2015			2015			2015		
	Total	Females	Males	Total	Females	Males	Total	Females	Males	Total	Females	Males	Total	Females	Males
15 -49	16,8	19,6	12,8	19,1	21,1	16,5	14,3	15,1	13,3	13,8	16,5	10,5	13,8	16,7	10,5
15 -24	7,1	10,6	2,7	5,9	8,8	2,1	6,1	8,2	3,3	4,8	6	3,4		6,7	2,9
0 -14							1,1	0,6	1,7	1,9	2,4	1,2	1,8	2	1,7

Source: Zimbabwe, Demographic and Health Survey 2005, 2010 & 2015

9.10.2.3 This segment of the population is critical in that it influences the fertility rate and contributes to the rate of HIV infection and population growth. It includes young women and men (15 to 24 years) at their early stages of sexual activity with a propensity to contribute to new HIV infections. They are also the backbone of the economy through the supply of labour and are key in the social and economic well-being of families including family system stability.

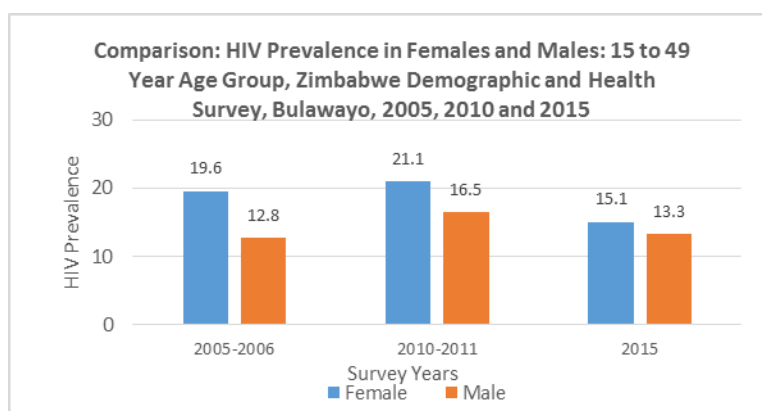
Figure: 22 (a) and (b): HIV Prevalence in Females and Males among the 15-49 and 15-24 Age Groups

(a)

(b)

Source: Zimbabwe Demographic and Health Survey

9.10.2.4 An analysis of HIV prevalence by gender as depicted on Figure 23 shows that females with the 15 to 49 age group have had a higher HIV prevalence than males although there is a downward trend in HIV prevalence for both sexes since 2005. The Prevention of Mother-to-Child Transmission (PMTCT) of HIV, Anti Retroviral Therapy Voluntary Counselling and Testing (VCT) are some programmes being implemented towards a reduction in the prevalence of HIV. The municipality indicates that there is an 18% HIV prevalence in the city.

Figure 23: Comparison of HIV Prevalence between Females and Males, 15-49 year age group

Source: Zimbabwe Demographic and Health Survey

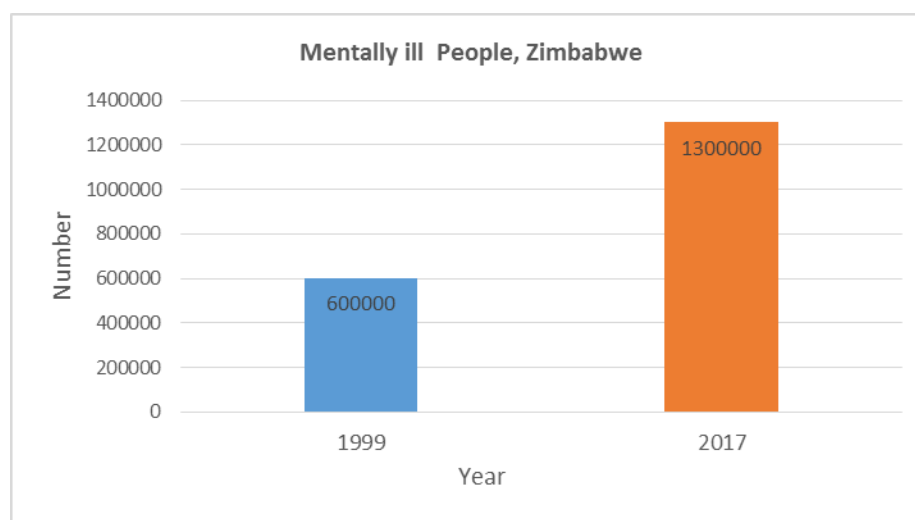
9.10.2.5 The antinatal programmes which are targeted specifically at the HIV/AIDS pandemic include Prevention of Mother -to-Child Transmission (PMCT); Early Infant Diagnosis (EID) among infants; Highly Active Antiretroviral Therapy (HAART); TB/HIV care and Voluntary Medical Male Circumcision. These programmes are aimed at managing HIV/AIDS.

9.10.2.6 The health research community globally has made progress in reducing HIV/AIDS related deaths through the use of ARVs but it has not been able to reduce the rate of infection. However, the city's Department of Health Services reports that is now a decline in the number of new HIV cases and HIV/AIDS related deaths.

9.11 MENTAL HEALTH PREVALENCE IN ZIMBABWE

9.11.1 The country is experiencing an increase in mental health cases. The increase is attributed to economic hardships facing the country including health-related causes. According to the World Health Organisation there were approximately 1.3 million people with mental health problems out of a population 13 572 560 in 2017 as shown in figure 24. This is equivalent to 10 percent of the population. This is an alarming statistic which when put differently suggests that 1 in 10 people have mental problems. The country has been beset by economic hardships since the turn of the millennium. The increase in mental health problems may be related to the high rate of unemployment, poverty, financial troubles and associated problems faced by households. While there are gestures for economic revival by government, it will take time for mental health to improve as it may take long for economic prosperity to be restored.

Figure 24: Mental Health in Zimbabwe



Source: World Health Organisation

9.11.2 An increase in mental health problems puts mental health institutions under strain, destabilises households and undermines social well-being with the result that the fabric of society becomes weak more especially when there are weak institutional and family support systems.

9.12 ENVIRONMENTAL HEALTH

9.12.1 Organisational Framework

9.12.1.1 The legal and policy environment for environmental health in the city is undertaken under the auspices of the Ministry of Health and Child Care and the Bulawayo City Council. The City has a well-established Environmental Health department and hence coverage of the services that promote environmental health is comprehensive.

9.12.1.2 The mission for Environmental Public Health Department is: To prevent ill-health among the population of Zimbabwe through community education and regulatory mechanism, to promote a healthy living and working environment, and to safeguard community health and quality of life

9.12.1.3 The department of Environmental Health provides the following services provided:

- i. Premises inspections - inspect schools, hospitals, mines, factories, trading premises and other public institutions to ensure that standards of hygiene are maintained and that public health regulations are complied with.
- ii. Food Quality Monitoring - food for sale to the public including food arriving from other countries to be sold in Zimbabwe is inspected to ascertain its quality. Food samples are also collected and submitted to the laboratory for analysis in order to determine its quality, suitability for consumption and compliance with the law.
- iii. Water Quality Monitoring - inspections are conducted on drinking water sources and water samples are collected for analysis using field techniques and laboratory techniques.
- iv. Water and Sanitation Promotion - provide technical know-how on the construction and maintenance of the Blair Ventilated Pit Latrine and the upgraded shallow wells through participatory hygiene education and technical know-how.
- v. Disease Prevention and Control - investigating cases of infectious diseases and tracing contacts of these diseases.
- vi. Port Health Activities - inspect public premises at the ports of entry to ensure that public health nuisances are prevented or dealt with appropriately.
- vii. Public Health Legislation - enforce the provisions of all the Public Health Laws. They also review the laws regularly to bring them in line with prevailing situations.

- viii. Health and Hygiene Promotion - the unit provides education on disease prevention, nutrition, food hygiene and safety, personal and general hygiene, and on waste disposal.

9.13 BULAWAYO CITY COUNCIL ENVIRONMENTAL HEALTH SERVICES

The City Council's Environmental health services department provides the following services:

9.13.1 Health Inspectorate

- That is food hygiene and food safety – maintain and Update a register of food premises and trade premises, inspect and swabbing of food premises and food sampling. Conduct one visit per month, swab as necessary, random sampling of food, 5 per week.
- Licensing and registration – scrutinize and comment on all food premises plans, inspection of trade premises, health institutions, crèches, pre-schools, residential premises, enforce by laws.
- Water quality control – select consumer sampling points in relation to who standards, that is 201 samples per month. Collect water samples and send for analysis.
- And control of environmental pollution – set out emissions standards for pollutants. Air quality sampling and smoke observation. Approval and inspection of stationery fuel burning appliances and sources.

9.13.2 Cleansing Services

- Effective solid waste management – refuse removal and disposal; review number of tasks carried out per day, removal schedule for domestic and industrial areas, e.g. weekly domestic, daily, or 3 x per week shopping areas. Ensure sanitary disposal of waste, adequate cover and compaction daily, prepare new tipping cells as the old ones fill up and provide for leachate control.
- Reduce littering and illegal dumping – provide refuse receptacles and provide skip bins in areas generating high volumes of refuse, e.g. markets, shopping areas. Run anti-litter campaigns coupled with markets, shopping areas. Monitor contractors cleaning streets, shopping areas and sanitary lanes daily.
- Dog patrols and licensing – conduct dog patrols and issue dog notices. Educate on need to vaccinate and licence dogs.
- And public conveniences – maintain in a clean and good state of repair, provide cleaning materials, and repair faulty closets. Cleaned twice daily and when necessary usage areas, for example bus stops.

9.13.3 Pest Control

- Mosquitoes – larviciding of water bodies, stream bank clearing, spraying rural buses.
- Rodents – baiting along the rodent control belt, clearing vacant stands and catching rodents for species identification.

9.13.4 Cemeteries and Crematorium

- Cemetery maintenance and grave digging contracted out.
- Department's role – monitor output (sufficient graves) monitor the quality (comply with standards), monitor grass cutting and bush clearing and provide for cremations.

9.14 LEGISLATIVE FRAMEWORK

9.14.1 Urban Councils Act, Chapter 29:15 provides for the maintenance of health and cleanliness and good order of all houses and buildings within a local government area and for the maintenance in good order of proper sanitary accommodation and for maintaining cleanliness and sanitation generally;

9.14.2 The Environmental Management Act 20:27 makes provision for among others the following environmental rights and principles of environmental management amongst others:

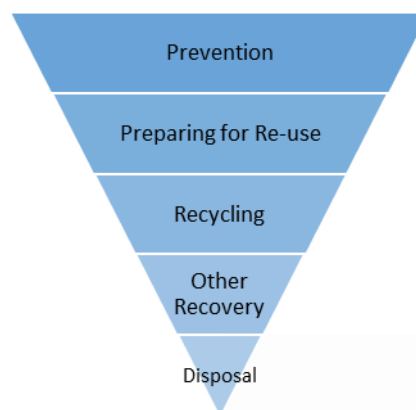
- i) A clean environment that is not harmful to health; and to protect the environment for the benefit of present and future generations
- ii) Prevention of pollution and environmental degradation; and
- iii) Taking note that all elements of the environment are linked and inter-related, therefore environmental management must be integrated and the best practicable environmental option pursued;
- iv) Environmental management must place people and their needs at the forefront of its concern;
- v) Environmental education, environmental awareness and the sharing of knowledge and experience must be promoted in order to increase the capacity of communities to address environmental issues;
- vi) Development must be socially, environmentally and economically sustainable;
- vii) Any person who causes pollution or environmental degradation shall meet the cost of remedying such pollution or environmental degradation and any resultant adverse health effects, as well as the cost of preventing, controlling or minimizing further pollution;
- viii) Taking measures necessary to identify materials and processes that are dangerous to human health and the environment;

- ix) No person shall discharge or dispose of any wastes, whether generated within or outside Zimbabwe, in such a manner as to cause pollution to the environment or ill health to any person.

9.15 WASTE HIERARCHY

9.15.1 Waste management in Bulawayo is analysed among other parameters, the waste hierarchy as depicted on Figure 25 which ranks and prioritises options in terms of their importance in managing waste for the benefit of the environment. The waste hierarchical approach starts by prioritising waste prevention, preparing it for re-use, recycling recovery and disposal at the landfill site as the last option. These processes are evident in the city and mostly occur in a structured and coordinated manner which if applied robustly may have greater benefits various role-players and the environment.

Figure 25: Waste Hierarchy



Source: Job Jika & Associates

9.16 WASTE GENERATION

9.16.1 The primary sources of waste in the city are residences, commercial enterprises, industries, public and private institutions e.g. schools, hospitals, streets, construction sites and other public spaces etc. Waste collection is undertaken by the municipality although there are other waste collectors who collect waste from places such as industries for recycling. Waste collection by the private sector is not a highly profitable service hence it is not attractive to private sector players. The main types of waste are paper, plastic, glass, garden refuse, metal and rubber.

9.17 REFUSE COLLECTION

9.17.1 The Municipality does not have a robust waste management infrastructure and equipment due to the financial challenges facing the municipality but efforts are being made to improve waste collection. Waste collection in parts of the city especially the high density suburbs has been erratic with some areas going for days with waste not having been collected. However, the city is continually trying to find innovative ways and means of improving service delivery to its residents. In June 2015 the use of community refuse removal project (CRRP) in collecting refuse was piloted at Emganwini, a high density suburb that is furthest from the landfill and has progressively been rolled out to all high density suburbs in the city and has improved refuse collection services. In this program, owners of trucks with a capacity of 3 tonnes to 7 tonnes were engaged and they provide their own crews to collect refuse from door steps.

9.17.2 The city uses a hybrid collection system where the City Council collects refuse from door steps in Ward 1 to Ward 8 and transports it to the landfill site. In Ward 9-28 Council has implemented a Community Refuse Removal program where community trucks collect refuse from door steps to a temporary collection point where they offload onto Council refuse trucks which then transport the waste to the Landfill site.

9.17.3 Residents are required to place their refuse in plastic papers or bags that are then collected onto the community trucks. The clear gains that have been brought about by the community refuse removal project as follows amongst others:

- a) Frequency of collection - The community refuse removal project has improved collection of refuse from fortnightly to weekly without additional refuse compactors being purchased. Clearance of sweepings had improved as bagged sweepings are being collected by community truckers.
- b) Distance - The distance being travelled by Council trucks using the Community Refuse Removal Project (CRRP) has significantly reduced. For example, during collection days in Nkulumane, Council trucks used to travel 506 km a week but when using the CRRP Council trucks now travel 155 km. The community refuse removal vehicles thus presents savings in mileage which in turn reduces vehicle maintenance costs.
- c) Fuel, Repairs and Maintenance Costs - House to house refuse collection is accompanied by a lot of start and stop operations which results in high wear and tear of the vehicles as well as high diesel consumption. For example, compactors are double axel vehicles and because of the narrow streets in the high density areas they are prone to more than average tyre wear and damage. The use of community

vehicles has helped reduce repair and maintenance costs associated with house to house collection since the compactors are only collecting from the designated collection points and are now travelling lesser distances.

- d) Labour - To provide a weekly refuse collection service in the high density areas Council needed 60 employees (12 haulage Overseers and 48 Loaders) yet the same service is now being provided by 6-8 Council employees. Employees that were covering the high density areas have been used to improve refuse collection in eastern areas, shopping centres, institutions and sweepings.
- e) Loads of Refuse Collected - It has been observed that since the inception of the CRRP, the number of households that bring out their refuse for collection has significantly improved. This in turn has resulted in a reduction by 60-75% in illegal dumping. When the service was fortnightly a large number of residents would dump their refuse in the event that the Council truck did not come but this is no longer the case as Council has managed to stick to its published refuse collection schedule. Using the traditional model of refuse collection, the schedule was frequently disrupted by vehicle shortages and breakdowns.
- f) The city no longer provides residents with bins due to economic challenges.

9.17.4 The Local Authority is experiencing a problem in terms of essential transport and equipment needed to ensure efficient refuse removal. The existing situation is shown in the table below;

Table 56: Available equipment for refuse removal

Type of Equipment	Number	In use	Required Number	Backlog
Trucks	52	20	104	84
Refuse Compactors	18 (reliable are only 14)	14	22	4
Skip haulier	0	0	1	1
3 tonne	1	1	2	1
Landfill compactor	1 (currently unreliable)	1	1	0
Bulldozer	1(Frequent breakdowns are being experienced)	1		
Front end loader	1	1	1	0
Tipper Trucks	2	2	2	0

Source: City of Bulawayo

9.17.5 The Municipality's Department of Health has a clear mandate on responsibilities and services to be rendered to the community to satisfactory levels of service delivery standards. However, the department faces the same financial and staffing challenges

which the municipality faces in service delivery. While the level of service standards are understandable, it is inadequate that domestic waste management (residential) industrial waste management is undertaken once a month. The norm is once a week or as per arrangement with clients as required. Table 56 below shows existing service levels by the Municipality.

Table 57: Service Levels by the Municipality

Service Level/Product	Service Level Standard	Ideal Service Standard
Licensing and registration of business premises (processing of application)	48 hours (2 days)	48hours
Examination of building plans	72 hours (3 days)	48hrs
Water and food quality monitoring	Routine	Routine
Public health complaints	48 hours / on demand	48 hours
Provision of graves and bookings	Routine / provision of graves on demand	On demand
Cremation services	On demand	On demand
Mosquito and rodent control	Routine	Routine
Domestic waste management (residential)	Once a month	One a week
Commercial waste management central business district, hotels, hospitals and shopping centres	Daily	Daily
Industrial waste management	Generator's responsibility to transport industrial waste. Disposal: on demand	Generator's responsibility to transport industrial waste. Disposal: on demand
Clearing illegal dumps	Depending on availability of resources	Within 48hours of being reported or identified
Cleaning of public conveniences	Daily	Daily
Street sweeping	Daily	Daily
Collection of dead animals	On demand	On demand
Dog patrols	Routine	Routine

Source: City of Bulawayo

9.18 SOLID WASTE MANAGEMENT

- 9.18.1 The Municipality undertakes solid waste management through refuse removal and disposal of domestic and industrial waste. It ensures sanitary disposal of waste, adequate cover and compaction daily, prepares new tipping cells as the old ones fill up and provide for leachate control. The municipality has a mandate to reduce littering and illegal dumping: provide refuse receptacles and provide skip bins in areas generating high volumes of refuse, e.g. markets, shopping areas. It also is mandated with running anti-litter campaigns at markets and shopping areas, monitor contractors cleaning streets, shopping areas and sanitary lanes daily.
- 9.18.2 Commercial waste and putrescible waste is collected daily in the CBD and institutions, weekly in the industrial areas while collection of bulk waste and industrial waste is the responsibility of the generator. The city does not have drop-off facilities and waste separation at source programme, strategies which have proved highly essential in waste management.
- 9.18.3 There are recycling and waste buy-back centres which owned by private companies.
- 9.18.4 Environmental Health Practitioners and Cleansing Supervisors monitor the disposal of medical waste and specifically, the incineration process.
- 9.18.5 Industrial waste is co-disposed with domestic waste if it is certified to be stabilized. Non-stabilized/hazardous waste is subjected to chemical and physical analysis where an appropriate disposal method is suggested.
- 9.18.6 While the city has environmental/waste education and awareness programmes, it acknowledges that there is a need to improve on this very important environmental care strategy.

9.19 THE LANDFILL SITE

- 9.19.1 Solid waste in Bulawayo is dumped at the Richmond Landfill site close to Cowdray Park and the proposed Umvimila industrial site. The site is located at the north western part of the city and is not easily accessible to areas from the south western to the eastern part of the city. Accessibility to the facility is becoming more difficult as the city grows outwards in different directions. The site was established in 1994 with an estimated life span of 20 years. The outstanding life span of the landfill at the moment is 7 – 10 years. Infrastructural developments at the landfill consists of offices and a weighbridge. There is no monitoring borehole and no gas venting is being done at the moment. This has implications in terms of monitoring pollution levels as well as routine analysis of bacteriological samples from the site.

- 9.19.2 Estimated daily waste at the landfill is 180 tonnes domestic/commercial waste and 20 tonnes industrial waste. This may not be an underestimate or overestimate as the weighbridge has not been functional but from these figures, the impression is that Bulawayo is a high net generator of waste. This is attributed to domestic waste which is generated by a rapidly increasing population and also industrial waste. Special note should also be taken of the waste to wealth (recycling) potential especially cans and plastics which is a multi – million dollar industry in South Africa. The conversion will not only create more jobs but will provide cheap raw material for some consumer products. Waste items therefore have important implications for planning not only because of the concern for environmental repair but also because of the multiplier effects on the economy. However, despite efforts by the Environmental Health Department of Council to institute some order in terms of refuse disposal, illegal dumping sites still exist in the city especially on the road reserves and open spaces.
- 9.19.3 The Richmond landfill site has become an economic resource to informal waste recyclers. Informal waste recyclers are an important component of the waste management process and it is important that measures are put in place for them to carry on with their business in a controlled manner and in line with legislation and compliance with by laws.
- 9.19.4 The emergence of the informal settlement around the waste disposal is a concern in particular in so far as the provisions of various legislation are taken into account. The settlement contravenes provisions of various pieces of legislation, viz, Town and Country Planning ACT, Public Health Act, Environmental Management Act not leaving out municipal by laws.
- 9.19.5 Former dump sites exist in the city and most of them are just open spaces which are being used by the community for urban agriculture while a couple have been reclaimed and developed for use as recreational play areas by the Parks section of the Municipality.
- 9.19.6 There is need for future disposal sites to be identified during the plan period given the high rate of waste generation currently being experienced in the city.

9.20 PEST CONTROL

- 9.20.1 Pest control is an important environmental health activity being undertaken by the department. Under this activity the city offers services such as spraying of open water bodies, rodent baiting, stream bank clearing controlling pests and vermin in council installations. Pest control is being undertaken for a nominal fee of \$17 per four (4) rooms. The services are meant to cover the entire city but as shown in Table 57, the coverage is severely limited.

Table 58: Coverage of spraying and Baiting in the City – 2017

Month	Number of Houses Sprayed
January	8
February	11
March	19
April	0
May	2
June	2
July	0
August	0
September	6
October	19
November	6
December	20
Total	93

Source: City of Bulawayo

9.21 ABBATOIRS

9.21.1 There are four (4) abattoirs in the city. 2 of these abattoirs were established after year 2000 and they are both chicken abattoirs and hence there has been no increase in animal slaughter abattoirs in the city despite an increase in population and meat requirements of the rapidly increasing population of the city. Table 58 shows the number of animals slaughtered in the city in 2017. In terms of location, the abattoirs are well located and they are easily accessible.

Table 59: Animals slaughtered at Abattoirs – 2017

Month	Cattle	Goats	Sheep	Pigs
January	1232	395	120	0
February	1066	369	147	0
March	1825	475	232	0
April	1418	456	225	0
May	2172	496	219	0
June	2115	284	218	0
July	4287	527	267	0
August	1916	230	57	0
September	1995	156	123	0
October	1629	274	109	0
November	1699	203	113	0
December	1780	384	171	0
Total	21 666	4 249	1 996	0

Source: City of Bulawayo

9.21.2 Routine inspections of food and dairy products are carried out by officials from the Environmental Health Department. Prompt action is taken on these procedures especially if there are complaints from consumers. However, the city is experiencing manpower challenges to meet the manpower requirements for a proper and efficient environmental health care services.

CHAPTER 10

SOCIAL AND COMMUNITY FACILITIES

10.1 GOVERNMENT OFFICES – CENTRAL AND LOCAL GOVERNMENT

10.1.1 There are various agencies of both Local and Central Government which are charged with the administration and co-ordination of development activities within the Bulawayo Planning Area. Most of the central government offices are located at Mhlahlandlela Government complex and Tredgold within the city centre while other government offices are located within other parts of the city centre and periphery e.g. Social Welfare, Immigration, ZIMRA, Public Works and National Housing and Veterinary services. The provincial offices for Matabeleland North are located at Mhlahlandlela while the provincial health offices for Matabeleland South are located at old memorial building. Local Government offices are located at the tower block though other offices especially housing offices are located within the various neighbourhoods. The offices for Umguza Rural District Council, which administers areas outside the Municipal boundary are also located within the city centre.

10.1.2 Central government departments in Bulawayo play an important role in terms of service delivery as well as the coordination and implementation of various development projects. The Central Government Departments in Bulawayo include:

- i. Ministry of Local Government Public Works and National Housing
- ii. Agritex – Provincial and District
- iii. ZIMRA
- iv. Ministry of Primary and Secondary Education
- v. Department of Survey and Mapping
- vi. Ministry of Mines
- vi. Department of Animal Health
- vii. Ministry of Public Service Labour and Social Welfare
- viii. Department of Wildlife and National Parks
- ix. Ministry of Health
- x. Prisons and correctional services
- xi. Zimbabwe Republic Police
- xii. Magistrate Courts
- xiii. ZINWA
- xiv. Tel One
- xv. Zim Post
- xvi. ZETDC
- xvii. National Railways of Zimbabwe

10.1.3 Local Government offices in Bulawayo are;

- i. Bulawayo City Council offices and departments which are located at the Tower Block and Stores unit. The Local Authority is headed by the Town Clerk, who is assisted by various heads of Departments. These consist of the Director of Engineering Services, Director of Housing and Community Services, Director of Finance, Director of Health Services and the Chamber Secretary. The various council departments include;
 - Council Administration
 - Human Resources and Administration
 - Finance (Accounts and Revenue)
 - Stores
 - Survey
 - Town Planning
 - Transport
 - Environmental Health
 - Primary health
 - Primary Education
 - Roads
 - Water and Waste water
 - Integrated Communications Technology (ICT)
 - Architecture and Buildings
 - Valuation
- ii. Umguza Rural District Council main offices are located within Bulawayo at Umguza RDC offices and is headed by the Chief Executive Officer. The CEO is assisted by various heads of departments. The various council departments include;
 - Council Administration
 - Human Resources and Administration
 - Finance
 - Engineering

10.2 COMMUNITY FACILITIES & YOUTH CENTRES

- 10.2.1 There are twenty (20) community halls which are located in the various residential neighbourhood. The facilities are being managed by the Local Authority though some that have been deemed redundant have been leased out. The community centres are located in the high density residential areas as shown in the table below;

Table 60: Community Halls in the Bulawayo

Name of community halls	Location (Township)
Macdonald	Mzilikazi
Luveve beit hall	Old Luveve
Pumula	Old Pumula
Mpopoma	Mpopoma
Entumbane	Entumbane
Matshobana	Matshobana
Stanley	Makokoba
Emakhandeni	Emakhandeni
Njube	Njube
Mabutweni	Mabutweni
Iminyela	Iminyela
Lobengula	New Lobengula
Pelandaba	Pelandaba
Magwegwe	Old Magwegwe
Pumula South	Pumula South
Pumula North	Pumula North
Sizinda	Sizinda
Tshabalala	Tshabalala
Nketa	Nketa 8
Nkulumane	Nkulumane Sekusile

Source: BCC & Consultant Surveys

10.2.2 Activities which may be undertaken at the community centres should have been approved by officials from the Housing and Community Services department. The activities for which community halls may be hired include; weddings, political meetings, community meetings, church meetings, musical events, arts exhibitions and performances, burial meetings, social parties and school events such as competitions amongst others. There are also some non – hired activities which are permitted at the community halls such as; rehearsals by artists, councillors’ meetings, vulnerable groups meetings. support group meetings, budget consultation meetings, national events, council programmes and recreational activities.

10.2.3 The facilities to a large extent still meeting the basic community needs as planned as they are providing a conducive environment for residents to meet and interact. However, there is need to upgrade and equip them with a view to modernize them to meet changing consumer tastes.

10.2.4 The challenges being faced regarding the community halls is that the facilities are now old and lack modern facilities and equipment which has greatly affected their

patronage. This has resulted in the LA losing some traditional clients to other players in the market who have better facilities.

10.3 YOUTH CENTRES

10.3.1 There are sixteen (16) Youth Centres which are located in the various residential neighbourhood. Fourteen (14) Youth centres are being managed by the City of Bulawayo while two (2) namely Youth Arena and Youth Venture Camp have been leased out. The Youth Centres are located in the high density residential areas as shown in the table below;

Table 61: Youth Centres in the City

Name of Youth Centre	Location
Inyathi	Mpopoma, Cleary Drive, Near Mpopoma Housing Office, Thikili Shopping Centre
Vulindlela	Mpopoma, Block 14, Ngwenya Road, Next to Salvation Army Church
Mthwakazi	Nguboyenja, Station Rd, Ext to Lozikeyi Primary School
Mzilikazi	Mzilikazi, Near S& P Square, Next to Mzilikazi Housing Office, Queens Road
Pumelela	Pelandaba(No 6) Adjacent to Pelandaba Hall, Sizani Road
Sizinda	Sizinda, Sizinda Community Centre, Mthwalo Road
Thabiso	Makokoba, 1 st And Batch Street, Opposite Methodist Training Centre And Salvation Army Church
Impande	Njube F Square, Opposite Njube High School, J.C Taylor Rd
Indlovu	Tshabalala, Vulindlela Rd, Near Basic Shopping Complex Opposite Masuku Primary School
Isilwane	Pumula Old, B Square. Opposite Police Camp
Isiziba	Njube O Square, Sibula Rd, Opposite Kwezi Park
Lobengula	New Lobengula, Uzwathi Rd, Opposite Brethren Christ Church
Luveve	Luveve Old, Huggins Rd, Opposite Luveve Stadium
Magwegwe	Magwegwe Old, Ntshamathe Rd/ Mqolo Road, Opposite Magwegwe Reservoir
Youth Arena	Mabutweni (No 2), Near White City Stadium, Hyde Park Road
Youth Venture Camp	Pumula South

Source: Bulawayo City Council & Consultants Surveys

10.3.2 The various activities being undertaken at the various Youth Centres include the following;

Physical development; These activities include all ball games i.e. Soccer, Netball, Volley ball, Basketball, Table tennis, Weightlifting, Drum majorettes, Cricket, Boxing, Martial Arts commonly classified as recreational activities.

Mental and intellectual development; The activities include: Debates, Chess, drama, drum majorettes, quiz, playing cards, drafts and ludo, risk, monopoly, snake and ladders, livelihoods and life skill straining for example computer literacy (IT).

Moral development; The activities include: Peer education, reproductive and sexual orientation, HIV and AIDS, STIs, Counselling, dissemination of information.

Social development; The activities include: Dance, art, music, poetry, drama, talent shows, modelling shows community dialogues, community engagement, social equity, philanthropy, public relations promote and enhance community youth participation.

10.3.3 The Youth Centres to a large extent are meeting the needs of youths within the community. This is in view of the needs for facilities to keep the youths occupied. Various artists and drama groups in the city developed skills from these youth centres. However there is room to improve and upgrade these centres to meet the current trends in youth development.

10.3.4 Whilst the youth centres are making a positive contribution to the youths and the community, there are some challenges which are being experienced at these facilities. These include the following amongst others;

- There is need for grading sporting for fields for all recreation centres.
- Lack of computers and internet services within most of the centres.
- Lack of modern equipment for instance gym equipment, Public Address system and musical instruments that service various youth needs.

10.4 ZIMBABWE INTERNATIONAL EXHIBITION CENTRE

10.4.1 The Zimbabwe International Exhibition Centre was established in 1960. It occupies a large expanse of land measuring over 17 hectares and is located near the city centre in the southern portion of the city on plot 160745600. Apart from open air exhibition area which is open for business all year round the Zimbabwe International Exhibition Centre hosts major trade exhibitions in the country such as the Zimbabwe International trade Fair and Mine entra as well as other activities such as private events conferences and seminars, exhibitions and functions, musical events and fashion shows. The exhibition centre provides about 58 000m² exhibition space, six (6) fully equipped and serviced multi purpose utility halls of 20 000m² area, over hundred (100) separate pavilions, parking space, outdoor grass arena for outdoor sporting activities and restaurants. The Individual Pavilions have different shapes and sizes for individual exhibitors. The structures are designed to meet the needs of the different exhibitors and their various wares.

10.4.2 Unlike the individual pavilions section which is already built up, the open air exhibition area is allocated to individuals and companies/organisations who erect temporary structures for exhibiting their wares during trade fair and other events. The structures

mainly constitutes of canopies, stands, marquees and kiosks. The ZITF grounds are landscaped and efforts are made to upgrade the facility at all times.

10.4.3 The Zimbabwe International Trade Fair (ZITF) grounds is designed to be a complex of mixed uses. There are some offices for some companies which operate from there on a permanent basis. There is a portion where various agricultural activities e.g. auctions are undertaken.

10.4.4 In an effort to consolidate its tenure status, the Zimbabwe International Trade Fair company which manages the complex works closely with Government, Commerce and Industry. Plans are on hand to upgrade and extend the establishment – there is space to accommodate the proposed expansion. The development of offices as well as granting of permission for other social events to be undertaken from the ZITF grounds promotes security as well as optimal utilization of space and facilities.

10.5 DIPLOMATIC MISSION

10.5.1 The South African Embassy has established an agency for its diplomatic mission in Bulawayo. It was established in an effort to assist people in the Southern part of the country who intend to apply for various documents such as student VISAs, work permits etc. The commission's agent is located along Samuel Parirenyatwa street and is easily accessible.

10.6 ZIMBABWE REPUBLIC POLICE

10.6.1 There are 22 developed police stations as well as other police posts in the city. Since 2 000 ZRP Bulawayo province has only managed to construct ZRP Magwegwe and Mabutweni with the assistance of the community. However, there are other departments within the police which are located within the police stations. The headquarters for Bulawayo Province police is located at Ross Camp. Looking at the country's standards of one police station for 5 000 people the police stations in the city are inadequate. In addition, the stand sizes for most police stations has implications on the facilities which are supposed to be provided at a police station.

10.6.2 There are 4 253 police officers within Bulawayo province making the ratio of one police officer to 10 000 people, a ratio which is very high when looking at the various efforts which are underway in an effort to combat crime. Table 61 below shows the crime statistics in Bulawayo from 2015 to December 2017. Theft is the most common form of crime followed by other forms of crime.

Table 62: Crime Statistics for Bulawayo 2015 - 2017

Nature of Offence	January – December 2015	January – December 2016	January – December 2017
Murder	34	22	41
Plan Robbery	1 382	997	956
A/Robbery (F/A)	17	27	22
Rape (Adult)	131	128	108
Rape (Juvenile)	156	142	122
U/Entry & Theft	3 140	2 479	2 472
Stocktheft	219	263	221
Theft	4 889	4 640	5 763
Assault	2 377	2 329	2 580
Theft of Motor Vehicle	62	33	60
Theft from Motor Vehicle	684	1 026	1 105
DD Act	103	82	111
Exch. Control	0	1	16
Fraud	848	798	644
Infanticide	9	2	8
Customs	0	4	2
Gold & P. Stone	37	29	18
Immigration	25	9	8
Tax Evasion	50	22	4
Corruption	7	3	0
Parks & Wildlife	18	13	6
MDP	634	736	732
Smuggling	16	23	25
Public Violence	4	4	2
Others	3 467	2 683	2 979
TOTAL	18 309	16 495	18 005

Source: Zimbabwe Republic Police, Bulawayo Province

10.6.3 The ZRP is experiencing some challenges in their operations namely a shortage of offices, there are only 202 offices against a staff compliment of 4 253 and there is a shortage of basic furniture, stationary and computers. There is also a shortage of holding cells and accommodation, as only 1 900 police officers are accommodated in institutional accommodation. The operations are hindered by lack of transport as well as an efficient communication system.

10.6.4 The ZRP has already been allocated stands in the various parts of the city and plans to construct more police stations in the city but is being hindered by lack of funds. The sites allocated sites are as follows:

Table 63: Sites allocated for ZRP developments

Proposal	Location	Size of Plot (Ha)	Date Offered
ZRP Bulawayo Central (Charge Office & Administration Offices)	Corner Masotsha Ndlovu & Batch Street	4.4	1993
ZRP Cowdray Park	3864 Cowdrey Park	0.3146	1996
ZRP Emganwini (Charge Office, Administration Offices & Residential Camp)	T.B.A	17.62	2004
ZRP Magwegwe (Charge Office, Administration Office & Residential Camp)	5933 Magwegwe	4.3	2005
ZRP Khumalo	Next to Elangeni Training Centre	T.B.A	2014

Source: Zimbabwe Republic Police

10.7 ZIMBABWE PRISONS AND CORRECTIONAL SERVICES

10.7.1 There are five (5) prison and correctional services facilities within the jurisdiction of Bulawayo namely Khami Maximum, Mlondolozhi, Khami Medium, Khami Remand and Bulawayo Prison. The table below show the existing situation at the facilities.

Table 64: Prison Facilities within the Planning Area

Name of Facility	Location		Stand Size	Number of Prison Cells	Number of Prison Officers	Number of Housing Units
Khami Maximum	Bulawayo Metropolitan		Approx 3 Ha	128	268	Shares with Mlondolozhi
Khami Remand	Bulawayo Metropolitan		Approx 1 Ha	223	203	Shares with Mlondolozhi
Khami Medium	Bulawayo Metropolitan		-----	32 communal 12 single	180	Shares with Mlondolozhi
Mlondolozhi	Bulawayo Metropolitan		Approx 1 ½	71	167	374
Bulawayo	Town Centre		-----	21	179	26

Prison				communal 2 single		
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Source: ZPCS & Consultants Surveys

10.7.2 Other facilities which have been developed at the correctional facilities include offices, gardens sports and recreational facilities at the facilities in Khami and a car wash at the town centre prison.

10.7.3 The main challenges being experienced at the Prison and correctional facilities relate to accommodation. For example the houses at Mlondolozhi are occupied by staff from 10 stations namely Khami maximum prison, Khami remand prison, Mlondolozhi prison, Khami medium prison, Khami prison workshop, Bulawayo Metropolitan Province, Matabeleland North Province, Public works department, Khami secondary and Khami primary school staff. In addition due to a shortage of accommodation some of the officers are sharing houses. The other challenges being experienced include shortage of offices, shortage of manpower (officers), shortage of transport and failure to fully utilise the farm/gardens to ensure full produce food from the various agricultural activities being undertaken at the prison facilities.

10.8 ZIMBABWE NATIONAL ARMY

10.8.1 The Zimbabwe National Army has two (2) major establishments. Mzilikazi barracks which is located within the Municipal Boundary near Paddenhurst suburb along the Harare road and Imbizo barracks which is located outside the boundaries of Bulawayo City Council.

10.9 ZIMBABWE POSTAL SERVICES

10.9.1 There are fifteen (15) post offices in Bulawayo which have been established to provide an efficient postal service delivery system in the city. Eleven (11) post offices are located in the residential neighbourhoods, three (3) in the city centre and one (1) is located in the industrial area. The Central sorting centre is also located in the city centre. There are no post offices which were constructed in the city during the operational period of the 2000 – 2015 Master Plan. Detailed information on the post offices in Bulawayo is shown in the table below.

Table 65: Post Offices in Bulawayo

Name of Post Office	Location	Stand Size (m2)	Total No of Counters	Number of Counters utilized for Zim Post Services	No of Private Boxes
Nkulumane	Nkulumane	2288	3	2	200

Northend	Northend	1604,8	2	1	100	
Bulawayo Main Post Office	City Centre 8 th Ave	2601,76	23	7	5 950	
Luveve	Luveve	1500	3	2	100	
Magwegwe	Magwegwe	1200	3	1	50	
Pumula	Pumula	1200	3	2	100	
Mzilikazi	Mzilikazi	800	2	1	50	
Queenspark	Queenspark	1850	2	1	200	
Morningside	Morningside	961	3	2	300	
Hillside	Hillside	2099,52	4	2	399	
Belmont	Belmont	1500	4	2	600	
Raylton	Raylton	932,5	4	1	250	
Entumbane	Entumbane	2466,38	5	1	200	
Mpopoma	Mpopoma	1176	3	1	200	
Famona	15 th Ave and George Silundika	276,52	4	1	1100	
Total			68	27	9 799	

Source: Zim Post & Consultants Surveys

10.9.2 The post office's main business is distribution of mail. However there has been a slight change of focus as post offices are now providing insurance services and have become an agency for a number of organisations such as ZINARA, CVR, NSSA, Government pension and offers banking services for POSB. In addition the financial sector it has become an agency for banks such as FBC, Steward, CABS and offers international money transfer services. As for cell phone network providers the post office is offering eco cash, airtime and related products for Econet, airtime and tele cash for telecel as well as net one money transfer services. As shown in the table above only twenty seven (27) out of sixty eight (68) counters which constitutes about 40% are being used for Zimpost services. The post office has a total of 9 799 private boxes but only 8% of the boxes are taken up. The economic downturn resulted in many companies surrendering their boxes.

10.10 COMMUNITY INFORMATION CENTRE

10.10.1 Community Information Centres have been established within most of the ZIM Post buildings. This is in line with a Government initiative which is aimed at ensuring that disadvantaged members of the community who cannot afford to buy computers are able to access internet services, print, scan, photocopy and fax.

10.10.2 The ZIM Post buildings were information centres have been established have been subdivided to establish a training room and information centre. Some offices such as Nkulumane are capable of accommodating up to twenty (20) trainees a time. At the community information centre, basic computer literacy programmes are being offered to members of the public so that people can use computers as well as search on the internet.

10.10.3 A special postal courier service is being rendered by Courier Connect, a subsidiary of ZIM post. The unit competes with the private courier companies in the business of delivering customers mail both within and outside the country at the shortest possible time for an economic fee.

10.10.4 While Zim post is making efforts to ensure that service delivery improves there are challenges being experienced in the delivery of mail. Some of the houses in new suburbs such as Cowdray Park, Mbundane and Mganwini have no house numbers making life difficult for the postmen. Some mail is addressed to vacant stands which have no mail repositories.

10. 11 OTHER SOCIAL AND COMMUNITY FACILITIES

10.11.1 Jairos Jiri Association

10.11.2 Jairos Jiri Association (JJA) is a registered Non-Governmental Organisation and is the largest service provider to people with disabilities for people with Disabilities. It was founded in 1950 with the official opening of a new training centre in Nguboyenja which was made possible as a result of a donation of land and buildings by Bulawayo City Council.

10.11.3 Bulawayo Vocational Training Centre is the foundation and the oldest of all Association's establishments. The centre treat, assist and rehabilitate men, women, boys and girls with disabilities by equipping them with various skills. Bulawayo Vocational Training centre is registered under the Ministry of Higher Education and Technology and offers training in Clothing Technology, Computer Programming, Electronics, Refrigeration, Welding, Business Studies, Wood Technology, Basketry, Leather Craft, and Secretarial Studies. The work of JJA is diversified and is tailor made to meet the needs of people with disabilities (men, women, boys and girls). The courses offered empower trainees with skills for both formal and informal employment in various economic sectors. The institution has given hope for the disabled in the country, where they could learn and train to be respected and be independent members of the society. Occupational therapy, Independent living, outreach and Follow up Integration programmes are carried out by the centre with the support from the Community Rehabilitation Programme.

10.11.4 Bulawayo Vocational training Centre has over the years produced many respectable citizens, some of whom are graduates of our local universities. Students also have access to regular rehabilitation services within the institution and participate in various sports and recreational activities. Students at the centre are taken once a week for physical exercise by the physiotherapist.

10.12 OLD AGE HOMES

10.12.1 There are eleven (11) old age homes in Bulawayo namely; Edith Duly, Garden park, Queen Mary, Ralsten, Savyon, Barbra Burell, Rhodes Jubilee, Coronation cottages, Bartley block, Ekuphumuleni and Entembeni. The majority of the old age homes are situated within the Coronation cottage complex on five street extension.

10.12.2 Garden Park Trust

10.12.2.1 Garden Park Trust is a retirement home situated in Woodlands and is registered with the Social Welfare Department. The home was established in October 1972 as a social welfare home for the aged after a donation by the City of Bulawayo of the 12 acre piece of land. It is administered by a board of three trustees and a committee comprising of five residents. The staff compliment at Garden Park as at July 2018 was thirty one (31) comprising of the management team namely; the complex manager, an administrator, security supervisor, maintenance supervisor, clinic sister, cashier and part time book keeper. There are some security gate keepers, maintenance team as well as gardeners.

10.12.2.2 Garden Park Trust offers various types of accommodation as shown in the table below:

Table 66: Existing situation at Garden park Trust

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Garden Park House	Full board and lodging	18	\$ 550.00 full board
Rented Bed Sit Flats	Small garden, a verandah, lounge/bedroom combined, bathroom and kitchen	55	\$98.00
Rented one bed Flats	Small garden, a verandah, lounge/dining room, kitchen and bathroom with separate toilet	11	\$129.00
Rented One Bedroom Cottages	Free standing with - Small garden, a	21	\$185.00

	verandah, lounge/dining room, kitchen and bathroom with separate toilet		
Two Bedroom cottages	Free standing	35	These are on Right of Abode or otherwise known as Life Rights. The cost of a right of abode is between \$ 50 000-00 and \$ 55 000.00
Two Bedroom Terrace		19	These are on Right of Abode or otherwise known as Life Rights. The cost of a right of abode is between \$ 50 000-00 and \$ 55 000.00

Source: Consultant Field Survey July 2018

10.12.2.3 Other infrastructural developments at garden park consist of an administration block kitchen and dining room, lounge, library, laundry, matron's rooms and a chapel.

10.12.2.4 To date there are two hundred (200) people who are residing at Garden Park and there is a waiting list of 277 people. This shows that there is a demand for such facilities in the city.

10.12.3 Edith Duly

10.12.3.1 Edith Duly is Bulawayo's only registered private nursing home, situated within the Coronation cottage complex and is registered with the Social Welfare Department. The home was established in 1959. Admittance to the home is extended to all ages where the need for assisted living has been established. In addition to general geriatric care, the nursing home is able to care for special needs such as stroke and accident victims, diabetics with complications, epileptic sufferers, Alzheimer's and Dementia. A short stay at Edith Duly can be arranged.

10.12.3.2 At the time of the survey Edith Duly had a staff compliment of 36 comprising of administrative staff, senior registered nurses, rehabilitation technician/occupational therapist, nurse aids, kitchen staff, cleaners and gardeners.

10.12.3.3 Accommodation options within the home range from 4 to 5 bed wards, private rooms with en suite bathrooms and private with communal facilities. There are also a limited number of units suitable for elderly couples. The facility offers a full board facility, no independent living. This is shown in the table below:

Table 67: Existing situation at Edith Duly

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Wards – can accommodate 5 beds	Full board and lodging	8	\$
Independent Rooms (private)	Full board and lodging	16	\$

Source: Consultants Survey

10.12.3.4 The facility has a potential occupancy of 55 people but at the time of the survey the occupancy was 22. The average annual occupancy is 20 and this is mainly attributed to affordability.

10.12.3.4 Infrastructural developments at Edith Duly consists of offices, wards, independent rooms, dining room and lounge. There are well maintained gardens where residents can sit and enjoy bird life.

10.12.4 Coronation Cottages

10.12.4.1 Coronation cottages was established in 1957 on a piece of land which was donated by the city of Bulawayo and is registered with the Social Welfare Department. Admittance to the home is extended to all ages where the need for assisted living has been established.

10.12.4.2 As at August 2018 Coronation cottages had a staff compliment of 11 comprising of administrative staff, senior registered nurse and gardeners. The registered nurse monitors the health condition of elderly though she works closely with EMRAS and various health facilities

10.12.4.3 The establishment has 203 housing units comprising of 163 flat lets which are earmarked for single persons and 40 cottages which are suitable for married couples. The facility does not offer full time boarding facilities as meals are provided at verity hall by a private caterer though the facility is located within the coronation cottages premises. The meals on offer are breakfast and lunch and these are offered 4 times a week. The verity hall is multi purpose and various activities for the benefit of the elderly such as church services, exercises, crafts and various celebrations such as mother's and father's day are being undertaken from the facility. Corronation cottages does not pay for using the facility. Coronation cottages has a waiting list especially for their cottages.

At the time of the survey not all the cottages were fully occupied due to renovations which were underway. In addition at least 3 flat lets and one cottage are left vacant at any time to accommodate visitors for the residents at a minimal cost of \$ 10 per night. This is shown in the table below:

Table 68: Existing situation at coronation cottages

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Flat lets	Self catering and lodging	163	\$ 115.00
Cottages	Self catering and lodging	40	\$ 150.00

Source: Consultants Survey

10.12.4.6 The facility has a potential occupancy of 243 people but at the time of the survey the occupancy was about 230. The average annual occupancy is at least 235 and this is mainly attributed to affordability.

10.12.4.7 Infrastructural developments at Edith Duly consists of offices, wards, independent rooms, dining room, lounge. There are well maintained gardens where residents can sit and enjoy bird life.

10.12.5 Rhodes Jubilee Cottages

10.12.5.1 Rhodes Jubilee Cottages formerly known as the cottage home for aged coloured community was established in 1953. The old age home is registered with the Social Welfare Department. Admittance to the home is extended to the aged who can take care of themselves.

10.12.5.2 The establishment has 30 various types of housing units comprising of 10 single quarters in Block B with a common bathroom and toilet, 10 single rooms with a kitchen, veranda, bathroom, common shower and toilet, 6 single rooms with own bathroom, toilet and kitchen and 4 married quarters. Rhodes Jubilee offers full time boarding facilities to the 10 single quarters in block B. The rest of the residents are catering for themselves.

10.12.5.3 There is no waiting list at Rhodes Jubilee, allocation is based on availability at the time of the enquiry. At the time of the survey all the housing units were occupied. Information on the existing housing units is shown in the table below:

Table 69: Existing situation at Rhodes Jubilee

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Single Rooms	Kitchen, dining, common toilet and bathroom - Full boarding	10	\$ 200.00
Single Rooms	Lounge cum bedroom, kitchen, veranda, common toilet and shower - Self catering	10	\$ 100.00
Single Rooms	Lounge cum bedroom, kitchen, veranda, private toilet and shower - Self catering	6	\$ 120.00
Married Quarters	Lounge, bedroom, kitchen, veranda, private toilet and shower - Self catering	4	\$ 200.00

Source: Consultants Surveys

10.12.5.4 The facility has a potential occupancy of 34 people and at the time of the survey it was fully occupied. At the time of the survey, Rhodes Jubilee had a staff compliment of 6 comprising of administrative staff, 3 gardeners and 2 cooks. There is no health personnel at the Rhodes Jubilee but the matron works closely with EMRAS ambulance services and various health facilities in case there residents who need medical attention.

10.12.5.5 Infrastructural developments at Rhodes Jubilee consists of offices, residential units, dining room, kitchen and a lounge. There are well maintained gardens where residents can sit and relax as well as enjoy bird life.

10.12.6 Barbra Burrell

10.12.6.1 Barbara established in 1974 to provide accommodation, recreation and rehabilitation for the elderly blind people. The institution was established on a piece of land which was donated by the city of Bulawayo and is registered with the Social Welfare Department. Admittance to the home is mainly for the elderly blind but in the event that there are no demand by the elderly blind, elderly people are accommodated for assisted living.

10.12.6.2 The establishment has 15 single rooms. Only one of the rooms has ensuite facilities, the other 14 are using communal bath rooms and toilets. Barbra Burrell offers full boarding and meals. The facility does not have a waiting list. This is shown in the table below:

Table 70: Existing situation at Barbra Burrell

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Single Unit	Full boarding with an en-suite	1	\$ 520.00
Single Unit	Full boarding and communal facilities	14	\$ 520.00

Source: Consultants Surveys

10.12.6.3 As at August 2018 Barbara Barrell had a staff compliment of 12 comprising of an administrative officer, chief nurse aids, kitchen staff, a gardener and general hands. The nurse monitors the health condition of elderly by working closely with a voluntary doctor who visits every Friday but is called upon when there are emergencies.

10.12.6.4 Infrastructural developments at Barbara consists of independent rooms, matrons flats dining room, lounge, common bathroom and toilets, staff quarters, summer house, store rooms and There are well maintained gardens where residents can sit. Most of the physical development and improvements at Barbara Burrell have been undertaken through the Beit Trust.

10.12.7 Ekuphumuleni Geriatric Nursing Home

10.12.7.1 Ekuphumuleni Geriatric Nursing Home not an old people's home but a convalescent old people's nursing home. It was established during the country's liberation struggle in 1978 and started operating from Vundu clinic to take care of the needs of ill elderly people around the city who have medical conditions. This was after a realization that People flooded city hospitals for medical attention but the hospitals were continually overwhelmed and the elderly suffered the most from this lack of resources and capacity because their ailments were considered as chronic and were often discharged before they had fully recovered. They were discharged on stretchers and wheelchairs into townships whose accommodation was inadequate and into families who had no idea how to take care of their needs. Developments at the current site were undertaken after a donation of a 2 hectare piece of land by the City of Bulawayo. It trains geriatric care aides and the community on how to care for the affected people, besides providing home based and day care for the elderly in need of such services.

10.12.7.2 Ekuphumuleni has 13 rooms which can accommodate 3 beds each as well 12 rooms which can accommodate 2 beds each. Communal bath rooms and toilets are being used at the facility. Full boarding facilities and meals and a 24 hour upkeep is being offered for three (3) months to the inmates prior to a review to ensure that one can function independently within a home environment. The maximum intake at Ekuphumuleni Geriatric Nursing Home is 62 but 45 are admitted at the home. The facility does not have a waiting.

Table 71: Existing situation at Ekuphumuleni Geriatric Nursing Home

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Rooms with 3 beds	Full boarding & communal facilities	13	\$ 100.00
Rooms with 2 beds	Full boarding & communal facilities	12	\$ 100.00

Source: Consultants Surveys

Note: In addition to the \$ 100.00 monthly payment the relatives/next of kin are expected to bring groceries and other toiletries.

10.12.7.3 Ekuphumuleni staff compliment is 45 permanent staff constituting of an administrator, a matron, sister in charge, bookkeeper, a driver, 21 nurse aids, kitchen staff, a gardener and general hands. In addition to the full staff compliment, institutions such as Zimbabwe Red Cross, Jubilee, St John Ambulance and other agencies which train nurse aids bring 24 student nurse every for practical lessons for 2 months.

10.12.7.4 Infrastructural developments consist of accommodation rooms, wards, lounge, kitchen, laundry flats dining room, lounge, common bathroom and toilets. There are some income generating activities such as poultry and vegetable gardening which are meant to sustain Ekuphumuleni.

10.12.8 Railstein Home

10.12.8.1 Railstein home was established in 1936 to provide accommodation, recreation and rehabilitation for the elderly. The home accommodates the elderly who can take care of themselves. The institution was established on a piece of land which was designated for use as old age homes by the city of Bulawayo. The facility is registered with the Social Welfare Department.

10.12.8.2 Railstein offers full boarding facilities and meals to the residents. The establishment has 32 single rooms with communal bath rooms and toilets. This is shown in the table below:

Table 72: Existing situation at Railstein Home

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Private rooms	Full boarding and communal facilities	32	\$ 200.00

Source: Consultants Surveys

10.12.8.3 As at August 2018, Railstein Home had a staff compliment of 7 comprising of an administrative officer/matron, nurse aid, 2 kitchen staff, a gardener, laundry staff and a security guard. The nurse monitors the health condition of elderly and works closely with a doctor who attends to patient's everyday between Mondays and Friday from Queen Mary House.

10.12.8.4 Infrastructural developments at Railstein consists of the matron's house, residential rooms, administration office, dining room, kitchen, laundry, library and toilets, staff quarters. There are well maintained gardens where residents can sit and relax. Most of the improvements and refurbishments at Railstein have been undertaken through the Beit Trust.

10.12.9 Savyon Lodge

10.12.9.1 Savyon lodge is a private facility which was established as a retirement home for the Jewish but now accommodates other denominations. The home was established in 1966 on a piece of land which was allocated by the City Council and is registered with the Department of Social Welfare.

10.12.9.2 Savyon lodge offers full boarding facilities and meals to the residents. The establishment has 16 single rooms and 15 double rooms which are all en - suites. Savyon Lodge has a capacity to accommodate 46 people but at the time of the survey there were only 4 people. Information on the facility is shown in the table below:

Table 73: Existing situation at Savyon Lodge

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Private single rooms	Full boarding with en - suites	16	\$ 850.00
Double Rooms	Full boarding with ensuites	15	\$ 1 135.00 for single \$ 1 500.00 for double

Source: Consultants Surveys

10.12.9.3 As at August 2018, Savyon Lodge had a staff compliment of 6 full time staff comprising of a cook, 2 matrons, gardener, cleaner and kitchen hand. There is a part time nurse monitors the health condition of elderly and works closely with the health

facilities. However, residents can employ a nurse aid to assist them if they see it fit to do so.

10.12.9.4 Infrastructural developments at Savyon Lodge consist of residential rooms, administration office, dining room/lounge, kitchen, laundry and a library. There is well maintained garden where residents can sit and relax.

10.12.9.5 Trained nurses and care givers provide care and support to the elderly at Savyon lodge nursing home

10.12.10 Queen Mary House

10.12.10.1 Queen Mary is a private retirement home which was established in 1929. The home was established on a piece of land which was allocated by the City Council for the development of old people's homes and is registered with the Department of Social Welfare.

10.12.10.2 Queen Mary offers full boarding facilities and meals to the residents. The institution has 32 private rooms, of which 10 are self contained and the other 22 use communal facilities. The retirement home has a capacity to accommodate 35 people. Information on the facility is shown in the table below:

Table 74: Existing situation at Queen Mary House

Type of Accommodation	Facilities	Number of types of housing units	Fees per month
Flat let	Full boarding with en - suite	1	\$ 565 single \$ 1 000 - double
Private single rooms	Full boarding with en - suites	5	\$ 565.00
Private single rooms	Full boarding with shared facilities	4	\$ 565.00
Private single rooms	Full boarding with communal facilities	22	\$ 445.00

Source: Consultants Surveys

10.12.10.3 As at August 2018, Queen Mary had a staff compliment of 11 full time staff comprising of 2 chefs, 2 kitchen assistants, 2 matrons, 2 gardeners/cleaners and 3 maids. There is no health personnel at Queen Mary to monitors the health condition of elderly hence the task lies with the matrons who work closely with the health facilities and the doctor. A volunteer doctor is available from Monday to Friday to look after staff and the residents.

10.12.10.4 Infrastructural developments at Queen Mary consist of staff accommodation for the matrons and 5 others members of staff, residential rooms, administration office, dining room, lounge, kitchen, laundry and a library. There is well maintained garden where residents can sit and relax.

10.12.11 Entembeni Old Age Home

10.12.11.1 Entembeni old age home was established in 1967 by a group of men who were part of the management team for Bulawayo City Council. These men formed a trust and bought land from Bulawayo City Council. They had discovered that most people who were destitute were aliens mainly from Malawi, Zambia and Mozambique who had come to Zimbabwe in the 1940s to look for work. Currently the institution is being run by a voluntary Board of Trustees. Entembeni has a capacity to accommodate 150 people but at the time of the survey there were only 38 people.

10.12.11.2 Infrastructural developments at the above old age homes mainly consists of administration blocks and hostels. Unlike Garden Park Trust which has a waiting list, the above homes are hardly full or filled up.

10.12.11.3 The staff compliment at Entembeni consists of a matron, 5 Nurse aids and two general hands.

10.12.12 Bartley Memorial Block

10.12.12.1 Bartley Memorial Block (BMB) constitutes part of the Government run United Bulawayo Hospital group. It was established in 1943 as a geriatric facility and is currently caring for 9 elderly who are residing at the facility. However, BMB no longer admits any new old people (no longer operates as an old people's home) but accommodates an overflow from Grey ward and Richard Morris. A management committee and volunteers are catering for the welfare of the old people at BMB.

10.12.12.2 There members of nursing staff who are taking care of the overflow from Richard Morris and Grey ward is taking care of general welfare and health needs of the old people. However, toiletries, laundry and ironing services for the geriatrics is being provided by the committee.

10.12.12.3 There accommodation are mostly private rooms and only one is being shared by 3 people and they all have communal facilities. BMB offers full boarding facilities, there is no independent living. This is shown in the table below.

Table 75: Existing situation at Bartley Memorial Block

Type of Accommodation	Facilities	Number of rooms	Fees
Private Rooms	Full boarding and lodging	5	None
Shared Room	Full boarding and lodging	1	None

Source: Consultants Surveys

10.12.12.4 BMB has the potential to increase the number of people but there are plans to utilise the facility as a private ward for orthopedic patients and hence there are no new admissions for geriatrics.

10.12.12.5 Infrastructural developments at BMB consists of offices, private rooms, dining, lounge, kitchen and spacious verandas where the geriatrics can relax.

10.13 CHILD CARE FACILITIES

10.13.1 There are ten (10) child care facilities which are registered with the Department of Social Welfare in the city as shown below.

Table 76: Registered Child Care facilities

Home	Date registered	Location	Registered capacity	Enrolment
John Smile	1960s	Barham Green	72	39
Percy Ibbotson Probation Hostel	1967	Luveve 5	66	17
Luveve Training School For Girls	1960s	Luveve 5	48	18
Isaiah's Umuzi Wotando	2007	Suburbs	20	14
Emthunzini Wethemba	1992	Mzilikazi	20	24
Queen Elizabeth	1968	S.Parerenyatwa st/8 th Avenue	30	33
SOS	1977	Northend	180	96
Mustard Seed	2017	Reigate	35	39
Themviso	1989	Luveve 5	54	35
Sandra Jones	2009	Malindela	10	12

Source: Consultant Field Surveys

10.13.2 Infrastructural facilities at the child care facilities mainly consists of dormitories, administrative blocks and family units. The facilities are not being fully utilised as the registered capacity vs enrollment is low.

10.13.3 The child care facilities are experiencing some challenges such as; financial constraints for day to day operations, transport constraints for some institutions particularly Government ones (John Smile, Percy, Luveve) and payment of salaries especially private facilities.

10.13.4 In view of the lack of full utilization the Government is of the view that there is no need for such facilities those already in place are enough. The government is advocating for community or foster care and adoption than institutionalisation.

10.13.5 The staff compliments of the various child care facilities are as shown in the table below;

Table 77: Staff compliment at the child care facilities

Name of Facility	Establishment	Existing
John Smale		
Superintendent	1	1
Social Welfare Officers	0	0
General Hands	2	1
Supervisors	7	7
Cooks	2	0
Matron	0	0
Accounting assistant	1	1
Total	13	10
Percy Ibbotson		
Superintendent	1	1
Matron	0	0
Social welfare officers	0	0
Supervisors	7	7
Cooks	2	2
General Hand	1	1
Accounting assistant	1	0
Total	12	11
Luveve Training School for Girls		
Superintendent	1	1
Matron	0	0
Social Welfare officers	0	0
Cooks	2	0
General hand	2	1
Supervisors	6	4
Accounting Assistant	1	0
Total	12	6
Isaiah's Umuzi Wothando		

Administrator	1	1
Social welfare Officers	0	0
Nurse aids	0	0
General hand	1	1
Total	2	2
Emthunzini Wethemba		
Administrator	1	1
Social Welfare Officers(SWOs)	0	0
Nurse Aids	0	0
General Hand	1	1
Total	2	2
Queen Elizabeth		
Matron	1	1
SWOs	0	0
Nurse Aids	0	0
Secretary	1	1
Cooks	2	2
Finance Officer	1	1
General Hand	2	1
Caregivers	9	9
Total	16	15
SOS		
Coordinator	1	1
SWOs	1	1
Nurse Aids	0	0
General Hand	1	1
Total	3	3
Mustard Seed Home		
Administrator	1	1
SWOs	0	0
Nurse Aids	0	0
General Hand	2	2
Total	3	3
Thembiso		
Superintendent	1	1
SWOs	0	0
Nurse Aids	0	0
General Hand	1	1
Total	2	2
Sandra Jones		
Matron	1	1

SWOs	0	0
Nurse aids	0	0
General Hand	0	0
Caregivers	3	3
Total	4	4

Source: Dept of Social Welfare & Consultant Field Surveys – June 2018

10.13.6 As shown in the table above, no facility has a full staff compliment to ensure the smooth running of the child care facilities. Critical staff such as Social welfare officers, cooks, nurse aids and general hands is not available in some of the facilities.

10.14 FIRE STATIONS

10.14.1 There are four (4) Fire Stations in the City namely Famona, North-end, Nketa and Nkulumane fire station.

Table 78: Existing fire Stations in the City

Name of Fire Station	Year of Construction	Location	Staff Compliment	
			Establishment	Existing
Famona	1950	Famona	117	39
Nketa	1955	Mpopoma	39	15
North End	1972	North End	39	15
Nkulumane	1998	Nkulumane	39	15
Control Room		Call Centre	9	5
Fire Prevention		Famona	2	1
Ambulance Services		All Stations	114	59
Total			356	149

Note: All the fire stations have 3 shifts and hence the high numbers as per establishments

Source: BCC

10.14.2 As shown in the table above there have been no new Fire stations constructed or developed after year 2 000, hence the need to establish at least two more stations to maintain or improve the response time by the fire department of ten minutes within the city.

10.14.3 In terms of service provision by the fire brigade, the city is divided into four zones called turn-out areas or station grounds to ensure a standard response time of ten minutes within each zone with back-up coming from another zone depending on the magnitude of an emergency. However, due to the rapid expansion of the city, the response time

has tended to increase above ten minutes to such suburbs as Waterford, Mahatshula and Cowdray Park and Woodville.

10.14.4 Infrastructural developments at each fire station constitutes of administration offices, staff quarters, kitchens, TV rooms, recreation rooms, lecture rooms, under carriage vehicle inspection pits, training drill yard, fire appliances and (vehicles) parking bays. Only Famona has additional infrastructure such a vehicle workshop for our fleet, partially equipped gym for our staff and equipment maintenance stores for internal servicing of various fire fighting equipment.

10.14.5 The current challenges being experienced by the fire brigade department include manpower shortages, shortage of spare parts for vehicles and other equipment, poor road networks which affects the response times and proximity of suburbs (in respect of expanding city and the boundary) to the nearest fire station, such that our response time to furthest suburbs is about twenty minutes.

10.14.6 There are plans to establish new substations at Cowdray Park and Waterford.

10.15 CEMETERIES AND CREMATORIA

10.15.1 There are ten (10) cemeteries within the city. Only (1) operation cemetery is located in the high density area of Luveve, the others are located in the middle income residential area. Eight are being managed by the city council and the other two Nkulumane Heroes Acre and Umvutcha are privately managed. Some of the cemeteries which are being managed by the city have been decommissioned and hence are no longer fully operational except for reserved burial spaces except for the Green Span cemetery which has been fully decommissioned.

Table 79: Existing cemeteries in Bulawayo

Name of Cemetery	Size of the Cemetery	Operational Date	Estimated Life Span	Current Status	Comments
Athlone Av.	16 ha	In the late 1890s	decommissioned	Closed in year 2000	Only a few grave sites for people who bought in advance still exist
Luveve Old	60 ha	03/03/1940	decommissioned		Burial space left is for pioneers
Hyde Park	22 ha	17/02/1958	decommissioned	Decommissioned	Dwindling

				in 2009	burial space. Only left for Muslims
Luveve Cemetery Extension	16 ha	Nov 2009	15 yrs	Commissioned in Nov 2009	Burials taking place are mainly for residents from western suburbs.
West Park	21 ha	02/11/1999	Ending in 2018	Still operational	Little space available should take us up to June 2018
Marvel	17.2 ha	Yet to be commissioned			Development taking place.
Pumula South	54.8982 ha	Yet to be commissioned		Yet to be commissioned	
Athlone West	4.06 ha	Yet to be commissioned	5 yrs	Yet to be commissioned	
Green Span	3 ha	9/10/1928	Over	Decommissioned	
Lady Stanley Av		Dec 1958	2 yrs	Still operational.	Cemetery within West park cemetery. Caters for burial of prominent citizens
Cremations		1940s		Decommissioned in 2016.	Awaiting delivery of the new cremator
Umvutcha Park		2017		Operational	Capacity is 50 000 graves

Source: BCC & Field Surveys

10.15.2 In addition to the cemeteries the city is operating a wood fired cremator that is a joint venture between Hindoo Society and the city council. The larger cremator was decommissioned in 2016, awaiting delivery of a new cremator.

10.15.3 Whilst there has been some reservations for burial space as some cemeteries are yet to be commission there are some challenges being experienced in the operation of cemeteries. These include; general maintenance of the cemeteries, fencing of the cemeteries, encountering rocky areas in some parts of the cemetery which reduces burial space and water logging being experienced in some of the cemeteries during the rainy season.

10.16 LIBRARIES

10.16.1 There are nine (9) libraries which are being managed by the City of Bulawayo through the Bulawayo Municipal Library Service (BMLS). The BMLS is a Sub-Section of the Education Section and is headed by a Senior Librarian, assisted by nine Branch Librarians to manage the whole library service. The table below shows the existing situation regarding libraries in the city.

Table 80: Libraries being managed by the City of Bulawayo

Name	Stand. No /Physical Location
Mzilikazi	44054 Mzilikazi
Luveve	3170 Old Luveve
Magwegwe	1063 New Magwegwe
Mpopoma	47002 Mpopoma,
Njube	52008 Njube
Nketa	3809 Nketa 7
Nkulumane	8342 Nkulumane 12
Pumula	10324 Pumula North
Tshabalala	63065 Tshabalala

Source: Bulawayo City Council & Field Surveys

10.16.2 There is no mobile library service being offered by the BMLS at the moment.

10.16.3 The libraries are a portal of all types of information within the community of Bulawayo and this includes education, recreational and research. At the moment the BMLS is meeting the needs of their clients as shown by number of people who utilise this service. All the nine libraries were purpose built libraries that meet the modern library design and also provide reading and study spaces. In an effort to meet the needs of children the libraries have established childrens' corners at all junior libraries (wings) where infant reading materials, games and toys are found.

10.16.4 While the libraries are providing an essential service to the community by promoting a reading culture they have not delivered to their expectation. For example due to harsh economic climate in the country, the library as a sub-section has not been able to expand as expected. The LA strategy was such that it planned to build at least one library after every five years as new suburbs were being built. The whole idea was that no library user should travel more than 5km to access the nearest library to their residential areas. However, the LA has not managed to do so as presently there is a backlog of eight (8) libraries.

10.16.5 In addition, all the nine (9) libraries are now lagging behind in terms of information communication technology. Internet for the public and staff is needed in the libraries. Currently only three (3) out of nine (9) libraries are online. Office and desk work need to be digitalised in order to cut some cost and improve service delivery efficiency. For example the installation of Koha, a library management software, would improve library operations significantly.

10.16.6 The staff establishment needs to be improved to offer good library service. Currently there are fifteen (15) vacant positions.

10.16.7 Funds are also needed annually to buy books relevant to local needs and to support local education syllabi. Current the library relies on donated books from Book Aid International which do not necessary meet our clientele' needs. Funds are also needed for general expenses, for example, buying materials for book processing.

10.16.8 In addition to the public libraries which are being managed by the city of Bulawayo there are 2 other public libraries namely; Bulawayo Public Library and the National Free Library.

Table 81: Other Public Libraries in the City

Name of Library	Location
Bulawayo Public Library	City Centre, between Fort Street and eighth Avenue
National Free Library	Along 12 th Avenue Extension next to Bulawayo Polytech

Source: Job Jika & Associates

10.16.8.1 Bulawayo Public Library

10.16.8.1.2 Bulawayo Public Library was the 1st public library to be established in the country. It was established in 1896 to provide services to citizens in the city centre and those suburbs which had no libraries in their neighborhoods. The library is being managed through a management committee and the library is a subscription library funded through subscriptions, grants and donations.

10.16.8.1.3 The library has 5 main section namely the main Lending section, children section, textbook and study section, binding section and computer section (internet cafe) and each with a capacity to accommodate 100 people. In addition, the library is offering braille services to the blind. They receive information services and rehabilitation and this library is improving their lives.

10.16.8.1.4 While the library is providing a service to the Bulawayo community, the major clients are children and high school going students at an average of 50 a day. Library patronage is high during school holidays and towards exams as students will be utilizing the space for studying for their final examinations.

10.16.8.1.5 At Inception the library had a staff compliment of ten (10) which has since increased to 22. This staff compliment constitutes of administrative as well as librarians.

10.16.8.1.6 The challenges being experienced by the library are mainly financial. As a self funding and non profit organisation lack of funding is affecting the library services especially when it intends to introduce new services or improve infrastructure.

10.16.8.1.7 In addition to the main public library the Bulawayo Public Library is running four (4) public library branches within the city namely Ascot Public Library, Cowdray Park Library, Historic Reference Centre (HRC) and the book (mobile) bus library.

10.16.8.2 Ascot Public Library

10.16.8.2.1 Ascot Public Library was established in 1981. The facility was meant to cater for members of the public who reside in the eastern suburbs as the city council has only developed public libraries in the western suburbs. The library is being managed through a management committee of the main public library and is being funded through subscriptions, grants and donations.

10.16.8.2.2 The library provides lending services as well as internet services at a cost.

10.16.8.2.3 While the library is providing a service to the Bulawayo community in the eastern suburbs, its major clients are children and high school going students and some senior citizens. Library patronage is high during school holidays and towards exams as students will be utilizing the facility to prepare for their final examinations. The Library is not open on Wednesdays.

10.16.8.2.4 The library had a staff compliment of one officer.

10.16.8.3 Cowdray Park Public Library

10.16.8.3.1 Cowdray Park Public Library was established in 1995. The library does not

constitute of any physical infrastructure but it is an old bus which was beyond repair which had a breakdown at Mahlathini primary school which was modified for use as a library. The facility was meant to cater for members of the public who reside in Cowdray Park as there is no provision of library services in the neighbourhood. The library is being managed through a management committee of the main public library and is being funded through subscriptions, grants and donations.

10.16.8.3.2 Despite that the library is located within a school it is providing lending services to all members of the public within the neighbourhood. While the library is providing a service to the Bulawayo community in the eastern suburbs, its major clients are children and high school going students and some citizens. Library patronage is high during school holidays and towards exams as students will be utilizing the facility to prepare for their final examinations.

10.16.8.3.3 The library had a staff compliment of one officer.

10.16.8.4 Historic Reference Collection

10.16.8.4.1 The Historic Reference Collection (HRC) was officially opened in 1981 and is operating from the City Council building – under the clock. It is the repository centre for various publications on Zimbabwe. The facility is meant to keep various publication which are also available at national archives as well as the Harare legal repository centre. The library is being managed through a management committee of the main public library and is being funded through subscriptions, grants and donations.

10.16.8.4.2 The library provides lending services as well as internet services at a cost.

10.16.8.4.3 The historic reference collection is meant to provide members of the public in the whole city with various publications on the history and development of Zimbabwe. While the library is providing a service to the whole Bulawayo community, its major clients are university students, researchers and some senior citizens. Library patronage is high when university students are writing their dissertations and thesis but on the overall researchers throughout the year patronise the HRC.

10.16.8.4.4 The library had a staff compliment of one officer.

10.16.8.5 Book (mobile) bus library

10.16.8.5.1 This is an outreach program of the mobile library which reaches out and instills a reading culture to primary school going children at schools which do not have libraries.

10.17 National Free Library

10.17.1 The National Free library was established in 1945 but its origins go back to the grant made in 1939 to the government of then Southern Rhodesia by the Carnegie Corporation of New York.

10.17.2 The Ministry of Primary and Secondary Education is the responsible authority. The library used to be run by a Board but was taken over by the Government through an ACT called the National Library and Documentation Service of 1985.

10.17.3 At Inception the library had four (4) sections namely: local lending; postal lending; accessions and interlibrary loans but now there are basically 2 active sections namely the local lending and accessions. Postal lending and interlibrary loans were overtaken by events.

10.17.4 The library has a sitting capacity of 60 and the garden can accommodate 40 readers making a maximum of 100 users at a time. The libraries major clients are high school students, lecturers, students from tertiary institutions. (Anyone who has completed 4years of secondary education can join the library) Average of 10 people use the library on quiet days and on busy days 40 or more. The library is particularly busy for major national and international examinations. It is usually quiet in December.

10.17.5 At inception the library had a staff compliment of thirty two (32) but now the library has a total staff compliment of six (6), 2 General Hands, 2 Library Assistants and 2 Senior Librarians. The post of a Deputy Director has been vacant since 2004, Principal Librarians since 1997 and Senior librarians since early 2000.

10.17.6 The library is not fully meeting the needs of the community due dependence on donations and donors do not meet a specific need but they give what they have. Books and other materials were last purchased in the late 1990s. However, with purchases the library is able to meet specific needs. 30 074 people have used the library in the past 5 years and the library is experiencing a decline in usage due to an old collection and failure to embrace emerging technologies. Funding has been the biggest challenge. The economic situation prevailing in the country has contributed immensely to the decline in patronage. The major challenges being experienced by the library include; underfunding, slow pace by government in adopting and adapting to the emerging technologies, outdated and torn books and failure to improve the existing structures

10.17.7 In future the library is looking at ICT, more offices and training rooms. The library has potential to be expanded upwards to accommodate more office space and a virtual library.

10.18 PLACES OF WORSHIP

10.18.1 There are 726 registered churches within the city and they are unevenly distributed through out the city. The majority of the churches are located in the city centre and high density residential area. The most prominent and big churches in the city include, UCCSA, Zion Christian Church, Seventh Day Adventist, Roman Catholic, Evangelical Lutheran Church in Zimbabwe, Methodist Church of Zimbabwe, United Methodist Church in Zimbabwe, AFM, Guta ra Mwari and Pentecostal Churches. Of all the registered churches 620 are operating from designated stands while some are operating from residential premises, schools, premises within the city centre and from some industrial stands in the various industrial areas. This goes to show that there is a shortage of civic and community stands in Bulawayo.

10.18.2 Some of the challenges being experienced in the operation of churches include; ethnical differences leading to splits and new church formations resulting in an increase in the church waiting list register and financial constraints resulting in the failure to develop the church stands as well as payment of monthly rates.

10.19 SPORTS AND RECREATION

10. 19.1 Bulawayo has a good share of sporting facilities and the most popular being football, rugby, hockey and cricket. The activities are well distributed across the city with elitist sports being concentrated in the low density residential areas and the high density area beginning to enjoy exposure to these sports due to development programmes initiated by central government and the respective associations.

10.19.1.1 Stadiums and Sports centres

10.19.1.2 There are five major stadiums in Bulawayo. Three of these stadiums are Municipal owned, one is state owned and the other is privately owned. There have been no major developments undertaken except for improvements and upgrading of Luveve Stadium, White City stadium, Barbourfields Stadium and Bulawayo Municipal Pool during the AUSC Region 5 Youth games in 2014. Sporting grounds were also revamped at Mzilikazi, Indlovu and Inyathi youth centres. These stadiums are multi purpose and may also be hired out for various occasions. In addition, there are various smaller privately owned sports centres which are open to paid up members who have the full priviledge of utilizing the facilities. Facilities at the clubs include tennis, squash, badmington, basketball courts, football, rugby, cricket, hockey grounds and swimming pools. Some of the major sports clubs in the city include Queens Sports Club, Bulawayo Athletic Club, Bulawayo Sports Club, Old Miltonians, Busters, Zimbabwe saints, Highlanders, Railstars and Amazulu.

10.19.1.3 Swimming Pools

10.19.1.4 There are six (6) swimming pools in the city. Three (3) of the swimming pools are located in the high density areas of Luveve, Mpopoma and Barbourfields. The Other 3 are located in Barham Green, North End and the city centre. Information on the existing swimming pools and their status is shown in the table below.

Table 82: Swimming pools in the city

Name of Swimming Pool	Location	Operation Status	Leased Out or being managed by BCC
Princes Margaret	CBD	Operational	managed by BCC
Barbourfields	Barbourfields	Not Operational	Leased Out
Barham Green	Barham Green	Operational	Managed by BCC
North End	North End	Not Operational	Managed by BCC
Luveve	Luveve	Not Operational	Managed by BCC
Mpopoma	Mpopoma	Not Operational	Managed by BCC

Source: City of Bulawayo

10.19.1.5 Only one (1) swimming pool is being leased out as part of the Public Private Partnership (PPP) as well as to improve service provision. As noted above the majority of swimming pools are not operating due to high costs of operation and maintenance and the perennial water and power challenges have also affected the operations of the swimming pools. There have been development of swimming pools in the newer residential areas even after year 2000 and the LA does not have plans to develop any swimming pools in the new residential areas.

10.19.1.6 Basketball

10.19.1.7 The major basketball courts in Bulawayo are located in North end and the central area. These facilities are used both for social and professional matches. Other basketball courts may be found within private properties or educational institutions.

10.19.1.8 Tennis/Badminton Courts

10.19.1.9 There are three (3) main tennis courts in Bulawayo, BAC, White City and Emakhandeni. BAC is located within Suburbs, White City in Mabutweni and Emakhandeni Tennis Club within the same suburb. BAC mainly serves the northern and western residential areas, whereas White City serves the western areas. In addition to the above courts some sports clubs and institutions also have tennis facilities.

10.19.1.10 Golf Courses

10.19.1.11 There are four (4) golf courses in Bulawayo. The golf courses are privately operated and are utilised by club members. These are located in the low density residential areas.

10.19.1.12 Water Recreation

10.19.1.13 Water recreation takes place outside the Municipal boundary on Umguza, Ncema, Umzingwane and Cunningham dams.

10.19.1.14 Entertainment and Cultural Facilities

10.19.1.15 The rate of growth and development of entertainment and social facilities in Bulawayo has been generally low during plan period. Cinema facilities exist at the Bulawayo centre in the central business district. Their locations means that they are generally accessible to a wider audience from the city and its hinterland. There also exists the Central Park Ampitheatre which is located at the centenary park and the Music Academy which is located near the Trade Fair. In addition, Amakhosi Township Square is located on the city centre periphery in Makokoba, offers theatre, music and other cultural events. Black Umfolosi has a cultural centre within the residential area of Entumbane.

10.20. PARKS AND OPEN SPACES

10.20.1 The preservation of open spaces throughout the city is important to provide the soft scape in the city. However, there have been some concerns regarding some open spaces when it was realized that enforcing authorities were involved in changing uses of areas designated as open through re-zoning for other urban land use activities. The development has contributed to the potential danger of ecological imbalance resulting from the insufficiency of open spaces.

10.20.2 There are two caravan parks in Bulawayo which are both Municipal owned the Hilltop site along Gwanda road and the central caravan site which is close to the Bulawayo Polytechnic. The central caravan park is properly designed, landscaped and well laid out. There are water fountains, internal foot paths, benches and flower beds, trees and shrubs also offers a play area, chalet area, tent area and biker area.

10.20.3 There are several open spaces all over the city in the various neighbourhoods in conformity with the urban design guidelines. Some of the open spaces have not been developed to make them active resulting in their being considered abandoned or merely

undeveloped plots. The open spaces need some attention from the City Council. As a result of lack of maintenance the propensity to convert them into other land uses is a function of their being left unattended. If they are properly developed as open spaces, the residents will not consider them as undeveloped vacant plots which they can utilise.

10.20.4 In addition to parks and open spaces there are several play grounds especially within schools but also in the various residential neighbourhoods throughout the city. In the recent years community grounds have been established at Emganwini, Nketa, Cowdray Park and Pumula East. Most of these open spaces are used for sporting activities even though informally as is the case with open spaces outside the educational institutions. Soccer is the most visible sporting activity in the later category of open spaces.

10.20.5 One crucial important open space which occupies a prominent place in the city is the Mazwi game reserve. Located on an expansive plot about 10km from the city centre along the Victoria Falls road, the site used to be a prime attraction for tourists and residents in the city. There is a rich variety of wildlife for which the country is well known for.

10.21 PUBLIC CONVENIENCES

10.21.1 Public conveniences in Bulawayo are provided by the City Council. These are mostly integrated in places where there are high volume public areas e.g. city centre, bus terminuses and cemeteries. There are 97 public conveniences which have been constructed to serve the entire city. These are distributed as shown in the table below.

Table 83: Status of public toilets in the city

LOCATION	NUMBER OF W/CS CISTERNS		CONDITION OF TOILET	OPERATOR
	Male	Female		
Northend	3	3	3 cisterns not working	Council
Queens Rd/M. Ndlovu Ave	2	5	1 pan broken 2 cisterns missing	Council
Queens Park East	1	1	All not flushing	Closed
Upper H/Side Dam (Brown)	4	6	All not flushing	Leased
Upper H/Side Dam (White)	2	2	Functioning well	Leased
Lower H/Side Dam	3	3	All working	Leased
8 th Ave/R. Mugabe Way	12	11	One block Leased	Council/Leased
Chigumira S/centre	1	2	3 cisterns not working	Council
T M Hyper	2	5	Working	Under TM
P.S. Mpofu	1	2	3 cisterns not working	Closed
Woza Woza S/Centre	1	2	3 cisterns not working	Closed

Mugadza S/Centre	1	2	3 cisterns not working	Closed
Apollo S/Centre	1	2	3 cisterns not working	Council
Mawunga	1	2	3 cisterns not working	Closed
Eastgate Complex	3	5	1 cisterns not working	Closed
Westgate	3	5	8 cisterns not working	Closed
Dliwayo S/Centre	1	2	3 cisterns not working	Closed
Rusike S/Centre	1	2	3cisterns not working	Council
Yonah S/Centre	1	2	3 cisterns not working	Council
Nhliziyo S/Centre	1	2	3 cisterns not working	Council
Hlalo S/Centre	1	2	3 cisterns not working	Council
Basch Street/6 th Ave	4	4	Leased	
B.G. Shopping Centre	2	4	6 cisterns not working	Council
Manwele Market	4	3	All not working	Council
Mashumba	5	2	5 cisterns not working	Council
Efusini	2	2	Refurbished by WVZ	Council
Makokoba Market	8	7	Refurbished by WVZ	Council
Black & White	2	2	4 cisterns not working	Council
J.B T/Grove	3	2	5 cisterns not working	Council
Mzilikazi S/Centre	2	2	4 cisterns not working	Closed
Library (Mzilikazi)	3	2	5 cisterns not working	Closed
Nkulumane (Sekusile)	2	3	5 cisterns not working	Leased
Nkulumane (Munyoro)	2	3	Refurbished	Council
Nkulumane (Phekiwe)	2	3	5 cisterns not working	Closed
Nkulumane 10	3	5	8 cisterns not working	Closed
Nketa 6	2	3	5 cisterns not working	Council
Nketa 6 S/Centre	2	3	5 cisterns not working	Council
Nketa 9 S/Centre	2	3	5 cisterns not working	Council
Lenard S/Centre		2	2 cisterns not working	Closed
Tshabalala Bus Terminus	2		2 cisterns not working	Council
Tshabalala One Way	1	1	2 cisterns not working	Council
Tshabalala Post Office	1	1	Vandalised cistern, taps	Council
Vulindlela Trading Co.	1	2	3 cisterns not working	Closed
Tshabalala Nketa Drive	2	3	Vandalised zinc roof, cistern, taps	Closed
Sizinda P/Toilet	3	4	Vandalised	Closed
Magwegwe West	1	2	3 cisterns not working 3 taps missing	Council
Pumula East	1	2	Refurbished by WVZ	Council
Pumula /North	1	2	Working	Council
Kelvin	3	5	Working	Council

Maplanka	1	2	Working	Council
J Themba	1	2	Working	Council
Masina	1	2	3 cisterns not working	Council
Banda Square	1	2	3 cisterns not working	Council
Mpopoma Total	1	2	Refurbished by WVZ	Council
Njube S/Centre	3	5	5 cisterns not working	Council
New Lobengula Terminus	1	2	3 cisterns not working No taps on hand basins	Closed
Magwegwe North Terminus	1	2	No taps on hand basins	Council
Magwegwe North Market	1	2	2 cisterns not working No taps on hand basins	Council
Magwegwe West Terminus	1	2	3 cisterns not working	Council
Mpopoma Barnabas	1	1	All flushing	Council
Kelvin North	3	5	8 Cisterns not working	Council
Tikili S/Centre	1	2	3 cisterns not working	Council
Njube 'D' Square	1	1	2 cisterns not working No taps on hand basin	Council
Iminyela	1	2	Under renovation by Council for Disabled	
Mabutweni	3	5	Not functional	Closed
Lobengula at Sikulile	1	2	Not working	Closed
Khami Road (near Cleansing)	4	2	6 cisterns not working	Closed
Near Getrude Hostel Makokoba			Closed	Closed
5 th Ave/Fife Street			Functional	Council
Cowdray Park	2	3	functional	Council
2 nd Ave/Lobengula St	3	3	Leased	Leased
Pelandaba	1	2	working	Council
1 st Ave/S. Parirenyatwa	1	2	Leased	Leased
Luveve Success (Sporweni)			Newly Built	Council
Revenue Hall (Underground)	9	9	working	Closed
Renkini (1 st Block)	10	14	5 w.c not functional	Council

Renkini (2 nd Block)		10	3 not functional	Council
Renkini (3 rd Block)	10	10	Closed due to plumbing challenges	Council
Nkulumane Complex	6	5	Functional	Council
Lobengula St/Mall (Zupco Terminus) Block 2	6	18	10 w.c not functional	To be demolished under Terra Cotta
Lobengula Mall (Zupco Terminus) Block 1	6	-	6 doors missing 6 cisterns not working	As above
Thorn Grove Industrial	3 2		5 cisterns not working	Closed
Bristol Rd/ J Chinamano Supercanners	1	2	3 cisterns not working	Closed
Khami Rd/Magazine Rd near Cleansing Section			Closed	Closed
White City	1	2	Not functional	Council
Mpopoma Nketa Park (1 st Block)			Not functional	Council
Mpopoma Nketa Park (2 nd Block)			Not functional	Council
Congo Park	1	2	3 cisterns not working	Closed
Falls Rd/M. Ndlovu	1	1	Leased	Closed
8 th Ave/R Mugabe Way	12	11	Leased	Council
Basch Street/ 6 th Ave	4	4	Leased	Leased out
3 rd Ave/Lobengula St			Leased	Leased
Nguboyenja	6	3	Returned	Council
Mpilo Public Toilet	2	3	Leased	Leased
8 th Ave/Basch Street	8	8	Leased	Leased
New Magwegwe			Leased	Leased
Skittle Inn			Leased	Leased

Source: Bulawayo City Council

10.21.2 However, of all these facilities only 62 are fully operational and of these 12 have been

leased out. During the operational period of the Master Plan (2000 – 2015) public conveniences have been developed in two areas namely Cowdray park terminus and Nkulumane long distance bus terminus. Some of the facilities have since been closed due to manpower shortages while others have been vandalized as they are no longer serving the purpose for which they were established especially those which were provided at the bus terminuses, as the bus terminuses are no longer being operationalized. The major challenges being experienced in operationalizing the public conveniences especially those which are being operated by the Municipality is vandalism. Due to inadequate facilities and maintenance problems being experienced in terms of public conveniences this constitutes a potential health hazard in the city. However, the city council has plans to establish more public conveniences in new suburbs and other areas which are now high volume public areas.

10.22 NATIONAL MUSEUM

10.22.1 The Bulawayo Museum, later named the Natural History Museum of Zimbabwe is Zimbabwe's largest museum. It is located in the Centenary Park in Bulawayo long Leopold Takawira. The National Museum was built in 1962 and in 1982 when all the natural science collections were moved to it and it was renamed Natural History Museum of Zimbabwe.

10.22.2 The Museum has the world's renowned collection of exhibits from various which relate to Entomology (insects), Geology, Herpetology (reptiles and amphibians), Ichthyology (fishes), Mammology, Ornithology (birds), and Palaeontology (prehistoric life forms). The Museum has a considerable number of artefacts from Zimbabwe's colonial era. There is a large collection of gemstones showcasing the country's wealth in terms of natural resources. At the centre of the museum is a collection of live snakes such as black mambas and cobras. The impressive circular building has nine (9) public display galleries, a lecture hall with a sitting capacity of 120, a cafeteria and eight research departments with substantial study collections and ongoing research in the various disciplines indicated above. Educational opportunities to students and the general public are offered through guided tours, periodic talks and conservation clubs.

CHAPTER 11

INFRASTRUCTURE AND UTILITIES

11.0 INTRODUCTION

11.0.1 This chapter covers water supply and waste water including all infrastructure from raw water sources, storage, pump stations rising and gravity supply mains, water treatment, clear water storage reservoirs, bulk distribution mains, reticulation, reservoir/zone metering erf connections and consumer metering. In terms of wastewater this includes all infrastructure from sewer outfalls, pump stations, rising mains, reticulation and waste water treatment facilities. The chapter also covers roads, traffic and transportation in the city, electricity and telecommunication systems.

11.1 WATER SOURCES, SUPPLIES AND DEMAND

11.1.1 It is estimated that the water reticulation network is 2 381km. The engineering services department is responsible for the planning, design and administration of water infrastructure for the city. The general planning of water was found to be of good competency and well planned as confirmed by previous master plan studies. However, the infrastructure in some cases has its design life come to an end whilst in some cases rehabilitation and upgrade efforts have been made. Inadequate resources for operations and maintenance have also contributed to non-fulfillment of some initiatives and recommendations by previous studies.

11.1.2 Extensive studies have been carried out including the Bosch Stemele Water and Wastewater master plan of 2012. The contents of the report cover master planning with interventions at three levels, immediate, short term (5years) and medium term up to 20 years. The report covered:

- Water Demand Management
- Water and wastewater master plan study

11.1.3 The recommendations made in the report have been reviewed in line with the proposed Master Plan as there is a deliberate effort to implement recommendations.

Water Sources

11.1.4 The main sources of water for Bulawayo is a group of five supply dams to the south eastern side of the city located on the system of rivers forming the Limpopo River catchment system. Khami dam located on the north western end of the city is currently out of commission due to high pollution levels. The city also gets supplies from 77

boreholes located at the Nyamandlovu aquifer located approximately 70km north west of the city which supply approximately 10% of the city's water consumption. Despite being installed in 1992 the boreholes were not fully operational until 2012 and are giving a yield of 2 Mℓ/day and a maximum of 4 Mℓ/day. The management of the Nyamandlovu Aquifer is a shared responsibility between Zimbabwe National Water Authority (ZINWA) and the City of Bulawayo. The boreholes pump into a common supply pipeline which feeds into Rochester Reservoir. The responsibility for the borehole supply system by ZINWA terminates at the Rochester Reservoir. The City of Bulawayo is responsible for the supply system from the outlet of Rochester reservoir.

Table 84: Main water sources for Bulawayo

Source	Capacity m ³	Yield mℓ/day
Umzingwane Dam	42 million	35,3
Inyankuni Dam	74 million	20.8
Upper and Lower Ncema Dams	63 million	42.5
Insiza Dam	173 million	33.7
TOTAL	352 million	132.3

Source: Bulawayo City Council & Consultants Surveys

- 11.1.5 The Mtshabezi pipeline was commissioned in 2016 to augment supplies to the city and has an average yield of 16 Mℓ/day. This pipeline augments water supply from Mzingwane. In addition, there is an additional supply of 17.9 Mℓ/day from Insiza Dam, which is the largest of the existing supply dams and increases the safe yield from 4% to 10%. Historically, Insiza Dam has been a reliable source of raw water supply to Bulawayo, even during severe drought conditions when the other supply dams have not been able to provide the safe yields.
- 11.1.6 With the exception of Insiza dam which is 20.5% Government owned, all the dams, conveyance systems and purification works which are used to supply the city are owned by the City of Bulawayo. The Nyamandlovu Acquifer well field is government owned but the storage and conveyance system is council owned. The City Council is also responsible for the maintenance and operation of all the water supply facilities.
- 11.1.7 There is a proposal to augment supply to Bulawayo through the Zambezi/Gwayi-Shangani Dam in the medium term (5-10years). This proposal remains active with an anticipated design capacity of 168.5 Mℓ/day for the initial 1200mm diameter pipeline, and 146.9 Mℓ/day for the second stage 1100mm diameter pipeline. It remains a critical project to ensure water supply security. It is envisaged that the supply will have a receiving raw water reservoir and treatment works at Cowdray Park.
- 11.1.8 The future water supply as depicted in the 2012 Water & Waste Water Master Plan, shows that fully implementation has not yet been undertaken. This long term plan will

see an increase in water demand of up to 204.1 Mℓ/day by year 2032. The summarized scenario is:

- 50% of the bulk water supply will be provided from the existing water sources with a yield of 132.3 Mℓ/day, including the Mtshabezi pipeline which is now in place
- 50% of the bulk water requirement would be provided from the Zambezi and Gwayi- Shangani Dam. This proposal would cater for water demand of the Magwegwe reservoir, Cowdray park and proposed future northern reservoir
- 9 Mℓ/day from the Nyamandlovu aquifer

11.1.9 Based on the current water resource planning for Bulawayo, it was envisaged that approximately 20% of the domestic sewage in Bulawayo needs to be re-cycled for potable re-use. This is work in progress, although the water at this stage is intended for non-potable use. The industries and Zimbabwe Electricity Supply Authority are part of this program.

11.2 BULK WATER TREATMENT AND STORAGE

11.2.1 Water is treated and pumped to reservoirs within the city through pressurized reticulation mains.

a) Ncema water treatment works

11.2.2 Ncema treatment works located 60km to the south eastern part of the city receives raw water from the existing supply dams. These works were constructed in 1939 with a capacity of 80 Mℓ/day. Ncema treatment works receives water by gravity from Lower Ncema and Umzingwane Dams. There is a provision to receive water from Insiza and Inyankuni dam if required. The Ncema water treatment plant consists of the following infrastructure:

- A balancing reservoir and chemical dosing at the head of the works. The chemical is mixed in solution in 2 x 23m³ tanks and dosed by gravity feeder, vertical shaft mixers are used for mixing.
- Four clariflocculators, a square type Dorr Clarifier and 2 No. Kinmont horizontal sedimentation tanks
- 3 main banks of rapid gravity sand filters. There are in total 21x rapid gravity sand filters. Backwash is through a combination of air and water scour.
 - Bank 1 (North) – 8 filters
 - Bank 2 (East) – 6 ‘Bateman’ type filters
 - Bank 3 (West) – 6 ‘Candy’ type filters
 - Old ‘Bateman’ type filter

11.2.3 The raw water is conveyed to storage reservoirs, with approximately one third of the raw water being treated at Ncema. The water is then pumped to Fernhill and Tuli Reservoirs. The remaining two thirds is pumped, via Fernhill Reservoir and pump station, to the Criterion Water Treatment Works where it is treated and distributed. Treated water is stored in 2 clear water reservoirs. The 2012 Water & Waste Water Master plan, recommended a decommission of the Ncema treatment works in 2022. This in turn would mean that raw water will be pumped to Fernhill raw water reservoirs, then pumped and treated at Criterion water works. It is envisaged that the Ncema to Fernhill and Criterion raw water pumping mains, pump station and reservoirs should be refurbished by 2022.

b) Criterion water works

11.2.4 These works were constructed in 1973 with an average capacity of 180 Mℓ/day, consisting of two 90 Mℓ/day modules. The criterion water works consists of the following infrastructure:

- 1,400 Mℓ open raw water storage reservoir/dam
- Chemical dosing plant (i.e. aluminium sulphate for coagulation, polyelectrolyte as a flocculation aid and lime for PH correction)
- 8 Alum solution tanks
- 2 polyelectrolyte solution tanks
- 2 x 4 No. Degremont Pulsator Clarifiers
- 2 x 8 No. rapid gravity sand filters
- Disinfection through chlorination
- 90 Mℓ clear water reservoir
- Sludge ponds

11.2.5 Fernhill Reservoir receives pumped raw water from Ncema Water Treatment Works via a booster pump station at Fernhill Reservoir up to the open raw water storage reservoir at Criterion. Water gravitates from the reservoir into the treatment works through a 900mm diameter concrete pipe. The Fernhill pipeline also has a valve system to divert raw water directly into the storage reservoir outlet pipework, thereby by-passing the raw water storage reservoir if required. Flow into the works is measured by an orifice plate type 'Kent' flow meter and the flow is manually adjusted with the use of a valve.

11.2.6 In the long term it is envisaged that recycled water from Khami Dam will be used for industries to augment water demand. The recycled raw water source will not exceed 20% of the total 20 year water demand requirements. The existing treatment works with a capacity of 180 Mℓ/d is capable of treating the required demands for the next 5 years. A further 10 Mℓ/d augmentation will be required to meet the 10-20 year demand. In addition, a bulk water supply pipeline will be required from Criterion Water Treatment Works to the Tuli Reservoir. Water demands up to 2022 will require water from both the Ncema and Criterion Water Treatment Works.

11.3 BULK WATER SUPPLY MAINS

Bulk Pipeline from Insiza Dam to Ncema WTW Raw Water Reservoir

11.3.1 The pipeline was constructed around 1980. Water gravitates from the outlet of Insiza Dam to the raw water reservoir at Ncema treatment works. This line is a 900mm diameter AC pipe, class 6, 12 and 24, its length is approximately 28km. Due to the age of the pipeline, it leaks frequently and has had failures in some sections in recent years. The local authority has been managing the situation through maintenance. Air valves which were previously giving challenges have since been replaced. There are existing recommendations to replace problematic sections of the line with a 800mm diameter steel or GRP pipeline which will convey the approximate 44 Mℓ/day based on the safe yield of the dam. In addition, there has been some recommendations to duplicate the pipeline link from Insiza Dam to Ncema with a second 600mm diameter pipeline, in order to provide an additional capacity of 17.9 Mℓ/day. Based on 2012 studies by Bosch Semele it was recommended that consideration be given to increasing the duplicate proposed pipeline to 900mm diameter in order to meet the full capacity requirement for this link. This will allow the old existing AC pipeline to be de-commissioned at some stage in the future (medium to long term), when it reaches the end of its life span. Insiza dam remains key to water security in the city. The City is in the process of sourcing funds for the duplication of the line.

Bulk Pipeline from Umzingwane Dam to Ncema water treatment works

11.3.2 Umzingwane to Ncema pipeline was constructed around 1950. Ncema water treatment works receives water from Umzingwane through an 840mm diameter steel pipe by gravity if the dam levels are sufficiently high or through a booster pump if otherwise. The bulk pipeline is 9km in length. The line is in a fair condition although the city attends to leaks and failures through planned and general maintenance. There is need for a detailed condition survey of the pipeline. The results will guide the Local Authority in terms of whether a complete replacement is required given the age of the pipe. Based on the safe yield of the dam approximately 46 Mℓ/day can be achieved.

Bulk Pipeline from Inyankuni Dam to Ncema WTW Raw Water Reservoir

11.3.3 Water gravitates from the outlet of Inyankuni Dam to the raw water Reservoir at Ncema WTW through an existing 600 mm diameter AC (Class 24) bulk pipeline, approximately 15 km in length. The pipeline was constructed in the 1950's and is in a fair condition. Over the years a few leaks or failures on the pipeline have been detected but these are being managed and repaired. In general the line is in good working condition. Recommendations based on 2012 studies are to replace sections with a new 700mm diameter steel or GRP pipeline. Based on dam yield, approximately 27 Mℓ/day, flow can be achieved.

Bulk Pipeline from Ncema Dam to Ncema WTW

- 11.3.4 Water gravitates from Lower Ncema into Ncema treatment works. Lower Ncema receives flow from Upper Ncema. Based on the yield of the dam approximately 55 Mℓ/day of flow can be achieved.

Bulk Pipelines from Ncema Raw Water Reservoir to Criterion Raw Water Reservoir

- 11.3.5 Ncema- Fernhill line was constructed in 1968 and is commonly known as “KSB” main, which is 840mm diameter steel pipe and is VJ coupled. The line is generally in a fair condition. There are two pump stations on the line both with KSB pumps.
- 11.3.6 Fernhill- Criterion line is a 750/825mm diameter steel pipe, which was constructed in 1995 and commonly known to as the “Sulzer” main. The pipeline is in a generally fair condition. The two pump stations are equipped with Sulzer pumps. General conditions of serviceability could not be ascertained.
- 11.3.7 The bulk pipeline consists of dual steel raw water high pressure pumping mains of approximate total length of 37.7 km. There are two pumping lifts:
- Ncema to Fernhill (20 km)
 - Fernhill to Criterion (17.7 km).

Bulk Pipeline from Ncema WTW to Tuli Clear Water Reservoir (Sulzer Old)

- 11.3.8 The pipeline was constructed around the mid 1950’s, and is in a fair condition, with localised corrosion at VJ coupled joints along the pipeline. The pipe line has an approximate length of 37.7km which is a 760mm diameter steel clear water high pressure pumping main. There are two pumping lifts.
- Ncema to Fernhill (20 km)
 - Fernhill to Criterion (17.7 km)
- 11.3.9 The 760mm diameter steel pipeline has VJ coupled joints, with a bitumen coating and lining. This pipeline is commonly referred to as the “Old Sulzer “main, with Sulzer pumps at both booster pump stations. Localised corrosion is occurring at air valve and scour tees along the pipeline. The pipeline is beyond its estimated 50 year design life-span, and would require refurbishment or replacement. This pipeline is to be permanently decommissioned in the long term as soon as the future supply from the Zambezi and Gwayi-Shangani Dam in the north is implemented. There are peri-urban consumers along the line who may have to be catered for after decommissioning of the line. Estimated population is 200 people.

Bulk Pipeline from Nyamandlovu Boreholes to Rochester and Hyde Park (Magwegwe) Reservoir

11.3.10 Nyamandlovu boreholes pump to the Rochester Reservoirs with several steel or AC pumping mains. There is a bulk pumping main from Rochester Reservoir to the Cowdray Park booster pump station, and thereafter up to the Hyde Park (Magwegwe) Reservoir. Sections of the pipeline comprises 600mm diameter steel with VJ coupled joints, and is in a fair condition. The 760mm diameter AC pipe (Class 24) is also in a fair condition. The pipeline was installed around 1995 and no replacement or upgrading is required, apart from general maintenance of valves and chambers, which is work in progress.

11.4 RESERVOIR STORAGE CAPACITY AND REQUIREMENTS

11.4.1 According to studies by Bosch Stemele in 2012, the existing reservoir capacities are adequate to meet current requirements. Additional storage capacity will need to be provided at the following sites to meet the projected future demands:

- Additional 14 Mℓ at the Criterion clear water reservoir site
- Additional 7 Mℓ at the 6J Reservoir site
- Proposed New 40 Mℓ Rangemore Reservoir
- Proposed New 28 Mℓ Northern Reservoir

11.5 WATER DEMAND

11.5.1 The estimated population according to City of Bulawayo based on the Non-Revenue water presentation 2018, is approximately 763 670 for the municipal area while the master plan report of 2012 by Bosch Stemele, estimated one million people. The latter was based more on property counts and estimated occupancy. For purposes of water demand projections an estimate of one million people is adopted based on a 2% growth rate as shown in the table below.

Table 85: Present and Future Annual Average Daily Water Demands for growth with medium level demand scenario

Reservoir Supply Zone	Total Average Demand (2012) with 36% losses (Mℓ/day)	Total Average Demand Present (2017) with 25% Losses (Mℓ/day)	Total Average Demand Year 20 (2032) @ 2% growth with 15% losses (Mℓ/day)
6J	32.609	28.488	35.274
Criterion	39.650	32.842	40.665
Hillside	24.513	21.741	26.920
Magwegwe	28.455	22.574	27.951
RR	16.423	14.091	27.951
Tuli	14.949	11.865	14.691

Future Res Range more	0.000	22.013	27.257
Future Res Northern	0.000	11.228	13.903
Total	156.599	164.842	204.108

Source: Bosch Stemele, Water and Waste Water Master Plan Report, 2012

11.5.2 The figures above were determined from a measurement of the system input volume using the ultrasonic flow meters in 2011. According to Bulawayo City Council Engineering Services the water demand is 123Mℓ/day with indications of losses up to 41.6%. The indications are there has not been any dramatic increase in demand since the last master plan study of 2012.

- The City Council estimate of the number of occupied properties is 134 381 households and total number of surveyed stands being 167 503. Bosch Stemele assessment approximated it to 107 547 with a projected increase to 214 498 sites by 2032 and 321 499 by year 2052.
- For the purposes of guiding the Master plan, table 1 above, representing middle road growth and medium level demand scenario appears to be a realistic projection for future planning in terms of water demand.

11.6 SEWER RETICULATION AND TREATMENT

Bulk Sewerage Treatment

11.6.1 Bulawayo is serviced by nine (9) waste water treatment plants namely:

- Aisleby 1
- Aisleby 2
- Aisleby 3
- Cowdray park
- Luveve
- Magwegwe
- SAST
- Thorngrove
- Waterford

11.6.2 In general Bulawayo drains from South to North into the Umguza river catchment area with the exception of the South – West corner and part of the Western side that drains into the Khami River catchment. This has led to the development of two prime waste water facilities namely Aisleby and SAST. The main sewer catchment areas in the city are shown on Map 11.

Northern Catchment

11.6.3 The Northern Catchment consists of Aisleby Treatment Works located next to Upper Umguza Dams. Two of the units at Aisleby are conventional trickling filter work with final effluent being discharged to Aisleby and Good hope farms where it is used for irrigation. Digested sludge is also discharged to the farms where it is ploughed into the farm land. The third unit is a biological nutrient removal plant producing effluent quantity good enough for direct discharge into the Umguza river. Aisleby treats most of the effluent generated within the CBD as well as domestic waste from the Northern and Eastern areas.

Aisleby Wastewater Treatment Works

11.6.4 There are 3 separate wastewater treatment works serving the overall Aisleby catchment area with a capacity of 30, 9 Mℓ/day. The catchment area is quite significant covering from southern, across the city to the northern boundary. The works also cover Mahatshula and Killarney which flows by gravity to Aisleby 3. The plant mechanisms are as follows:

- Aisleby 1: A biological filter (trickling filter) plant
- Aisleby 2: A biological filter (trickling filter) plant
- Aisleby 3: A biological nutrient removal activated sludge plant – 10 Mℓ/d

11.6.5 Aisleby 1 and 2 are situated on the same site. The two works are similar in layout and structure and have the following components:

- Intake Works
 - Hand rake screens
 - Manual grit channels
 - Degritting structure
- Primary sedimentation tanks
- Pump station (sludge and recycle)
- Biological filters
- Humus tank
- Digesters
- Sludge Drying beds

11.6.6 Aisleby 1 & 2 WWTW condition had deteriorated due to the lack of maintenance and operations funding for several years. However the waste water works have been refurbished in recent years.

Southern Catchment

11.6.7 Southern Areas Treatment Works are located upstream of Khami Dam. This is a Biological Nutrient Removal Plant whose final effluent is discharged into the Khami river. The southern areas treatment works treats domestic sewage from the western high density areas.

SAST 1 and 2 (Southern Areas Sewage Treatment)

11.6.8 There are two wastewater treatment works adjacent to each other which comprise of SAST 1 and 2. SAST 1 was an extension of the aeration sludge plant (capacity 6, 0 Mℓ/d) which was later converted to a nutrient removal plant. SAST 2 (capacity 15, 0 Mℓ/d) is a full nutrient removal plant. The plants were completed in 2002, however they were never fully commissioned. At the same time SAST 1 was taken off line. The SAST 2 is being run as an extended aeration plant because of an in-completed digested sludge system. However the works will be complete through AFDB funding.

11.6.9 The two SAST treatment works comprise of the following components:

- Intake Works

11.6.10 The inlet works is common to both plants and comprises of:

- A mechanically raked bar screen with manual bypass
- A manual fine raked screen
- A flow measuring flume and flow meter
- Division chamber to split flows
- Mechanical grit removal system for both SAST 1 and 2 plants

11.6.11 SAST 2 WWTW comprises of the following:

- 2 Primary sedimentation tanks
- Primary sludge pump station
- Primary sludge gravity thickness
- Balancing tank with vertical shaft mixers
- 2 No Archimedean screw pumps
- NRB reactor with surface aeration and vertical shaft mixers.
- Waste activated sludge recycle pumps
- DAF (dissolved air flotation) unit for sludge thickening including pumps and compressor.
- Thickened WA Sludge pump station
- Anaerobic digesters
- Heat exchanges and associated pumps

- 2 No secondary clarifiers
- WAS aerobic pond with floating aerators
- Sludge drying beds

11.6.12 The ponds and sludge drying beds serve both plants. The SAST 2 wastewater treatment works is in a fair condition and could be raised to serviceability level.

11.6.13 All sewage entering the SAST 1 and 2 sewage treatment works is gravitated from the SAST catchment area, which includes Pumula in the west up to Nketa and Emganwini in the south. In future SAST 1 and 2 will also receive sewage from the proposed new developments in the Upper and Lower Rangemore areas located at the south western boundary of Bulawayo.

Magwegwe Wastewater Treatment Works

11.6.14 The Magwegwe waste water treatment works falls into an upper part of the upper part of the Khami catchment on the western side of Bulawayo. The treatment works receive sewer inflow from Magwegwe high density residential area. The plant uses stabilization pond system. Magwegwe is a facultative pond works with effluent being used to irrigate a gumtree plantation. The design capacity of the works is approximately 4 0 Mℓ/day. The works consists of the following:

- Intake works (hand raked screen with 2 grit channels)
- Three anaerobic ponds
- Seven secondary ponds (flocculation and maturation)

Luveve Waste Water Treatment

11.6.15 The plant was built in the 1970s in the form of a conventional trickling filter plant whose final effluent provides a reclaimed effluent facility for the irrigation of recreational facilities in Luveve suburb. It has a capacity of 3, 5 Mℓ/day. This plant also has a water reclaiming facility. The catchment covered is quite a small area which is significantly developed, consisting of mainly residential areas. The works comprises of the following structures:

- Intake Works
 - ✓ Manual rake screen
 - ✓ Mechanical screen
 - ✓ Grit channels
 - ✓ Raw sewage pump station
- Four primary sedimentation tanks. All raw sewage is pumped into the primary sedimentation tanks.
- Two Primary Trickling Filters

- One Humus Tank
- Three Secondary Trickling Filters
- One Secondary Humus Tank/Clarifier
- One Digester
- Three steel sand filters for reclaimed water
- Pump stations
 - ✓ Raw sewage
 - ✓ Secondary treatment
 - ✓ Sludge
 - ✓ Reclaimed waste
- Twenty two Sludge Drying Beds

Thorngrove Wastewater Treatment Works

11.6.16 Thorngrove constitutes trickling filter type of works located just downstream of Bulawayo's major industrial waste discharges and 2km west of the City Centre. The treatment works treats both industrial and residential sewer inflows from central Bulawayo. The residential areas covered are Mpopoma, Donnington, Mzilikazi, Sizinda, whilst industrial inflow comes from oil refinery, abattoir and dairy operations. The plant is a conventional biological filtration system with over 50 years of existence. The capacity of the plant is suspected to be in range of 8 Mℓ/day, the exact quantity is unknown. At the time of the 2012 master plan studies the condition of the plant was poor however in recent years work has been done and the state has improved to a fair condition. The treatment works have a water reclamation system to distribute second class (non-potable) water which can be used to irrigate parks and open spaces around central Bulawayo. Infrastructure development at the treatment works constitute of:

1. Intake Works
 - ✓ Inlet channels for removal of grit
 - ✓ A mechanical rake screen
 - ✓ A mechanical grit removal detractor with pump and screw conveyor for removal of grit
 - ✓ Partial flume for measurement
2. Primary Sedimentation Tanks
 - ✓ Distribution Chamber
 - ✓ 8 No primary settlers with mechanical scrapers (15m diameter)
3. Recycle Pump station
 - ✓ Four pumps for recycle of primary filter effluent and pumping to secondary bio-filters
4. Biological (Trickling Filters)

- ✓ Primary Filters 8 No bio-filters (42m diameter)
- 5. Secondary Bio-filters
 - ✓ 2 No. bio-filters (42m diameter)
- 6. Humus Tanks
 - ✓ 2 No. humus tanks from primary trickling filters and 2 No. humus tanks from the secondary trickling filters.
- 7. Sludge Recycle and Discharge Pump station
 - ✓ 2 No. sludge recycle pumps for humus tank recycle
 - ✓ 2 No. sludge pumps used to pump sludge to the maturation hands
 - ✓ Only 2 of the 4 pumps are working
- 8. Maturation Pond
- 9. Holding Tank and Pump station

Cowdray Park Wastewater Treatment Works

11.6.17 The treatment works which has a capacity of approximately 3,869 Mℓ/day, receives effluent from Cowdray Park high density residential areas. The works consist of a stabilization pond system with the following components:

- ✓ Inlet works (hand raked screen with 2 sand/grit channels with a flume)
- ✓ Anaerobic ponds
- ✓ Secondary ponds

11.6.18 The final effluent is discharged to open fields or pumped for irrigation. Generally the Ponds are in a fair condition, though they require periodic or routine maintenance of ponds i.e. clearing of reeds etc.

Waterford Wastewater Treatment Works

11.6.19 The Waterford plant collects flows from Waterford and Douglas dale areas. It also receives sewage from the proposed future developments, some of which are on - going in the area east of the treatment works.

11.6.20 The wastewater treatment works was recently refurbishment and upgrading. The inflow volume of sewage is not known. The design capacity was estimated at 0.15 Mℓ/day.

11.6.21 The works comprises of the following:

- ✓ Intake works
- ✓ Primary sedimentation tank
- ✓ 1 small and 1 larger bio-filter
- ✓ Humus tank

11.7 PRESENT AND FUTURE PROJECTIONS OF THE TREATMENT WORKS

11.7.1 The present day capacity and the future capacity requirements for each of the WWTW, based on the medium growth and medium level average demand scenario, are summarised in the table below:

Table 86: Capacity projections for the WWTW

WWTW	Projected Estimate Capacity 2017 (Mℓ/day)	Future Required Capacity Year 2022 (Mℓ/day)	Future Required Capacity Year 2027 (Mℓ/day)	Future Required Capacity Year 2032 (Mℓ/day)
Aisleby 1 & 2	32.125	33.563	35.066	36.637
Aisleby 3	9.076	10.701	12.618	14.878
Cowdray Park	3.869	4.619	5.515	6.585
Luveve	3.888	4.011	4.139	4.270
Magwegwe	3.703	4.077	4.488	4.941
Sast	21.173	24.558	28.483	33.035
Thorn Grove	11.925	12.027	12.129	12.233
Waterford	0.170	0.212	0.265	0.330

Source: Bosch Stemele, Water and Waste Water Master Plan Report, 2012

11.7.2 Based on the recommendations of the scenario “middle road growth and medium level average demand”, SAST, Thorn Grove and Waterford waste water treatment plants will continue to treat sewage from their respective catchment areas.

11.7.3 Whilst additional capacity of 0.18 Mℓ/day will be required at the Waterford WWTW in the medium to long term in order to accommodate the future demand requirements for its catchment area.

11.8 ROADS, TRAFFIC AND TRANSPORTATION

Road Network

11.8.1 There are two major regional corridor roads which pass through Bulawayo measuring a total 29.68km namely:

- R9: South to North route from Beitbridge to Victoria falls.
- R2: West to east route from Plumtree through to Mutare.

11.8.2 The two roads have not been upgraded although R2 was rehabilitated. R9 facilitates the movement of goods from the north through Zimbabwe into South Africa.

11.8.3 Other major road links within the Study area consist of the following:

- i) Bulawayo – Khami
- ii) Bulawayo – Nkayi
- iv) Bulawayo – Harare
- v) Bulawayo – Kezi

11.8.4 These roads are all tarred and carry considerable volumes of vehicular traffic. As a result of the above road links and intersections and given the fact that the major regional roads pass through Bulawayo, the city is strategically located at the centre of the road and railway networks of the SADC region and is therefore an important interconnecting City for all forms of overland transport. Map 12 shows the road network in the city. This situation facilitates the movement of goods and people to and from virtually all parts of the country.

11.8.5 With regards to the existing road network in the existing built up areas of Bulawayo, the is such that there is a fairly discernable hierarchy of roads in terms of local primary, secondary collector roads and access roads.

11.9 CLASSIFICATION OF NETWORK

11.9.1 City of Bulawayo, in 2016-17 carried out a road condition survey. The outputs from the exercise included, Road Network register, Road Inventory, Road classification, Traffic count analysis, Road rehabilitation and maintenance strategy. The results of the exercise have been used as a basis for review of status quo. The City total network according to class and type is shown in the tables below.

Table 87: City of Bulawayo total network

Type	Length, km
Sealed	1 509
Gravel & Sealed	75.5
Gravel	566
Earth	91.3
Blank	147
Total	2 388

Source: National Road Condition Survey 2016-2017

Table 88: Network breakdown according to category

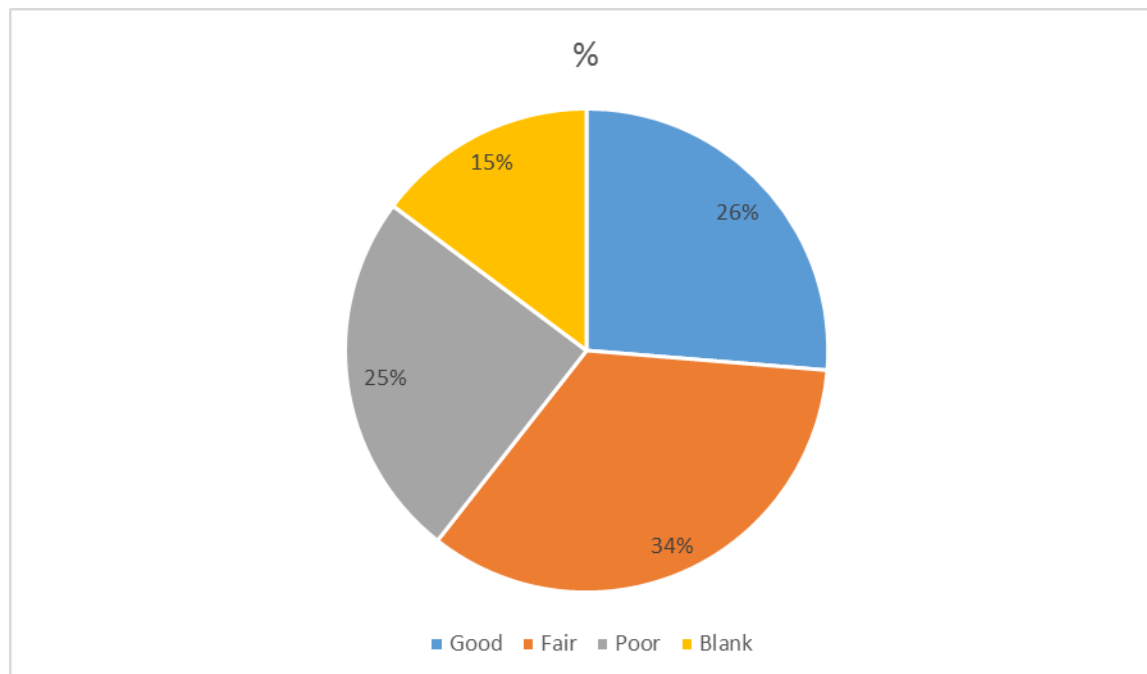
Class	Urban Arterial	Urban CBD	Urban Local	Urban Collectors	Urban Distributor	TOTAL
Km	65	14	1507	211	2	2388

Source: National Road Condition Survey 2016-2017

State of the Network

11.9.2 The condition of the entire road network can be assessed using the riding quality of the pavements. Using this parameter, 26.3% of the entire road network is in good state, 34.3% is in a fair state, 24.6% is poor and 14.8% is unaccounted for. See figure 26 below.

Figure 26: Riding Quality of the City of Bulawayo Road network



Source: National Road Condition Survey

Condition of Roads

11.9.3 Except for the major primary and secondary roads the road conditions in Bulawayo can generally be described as poor. The major primary and secondary roads are in a very good road condition. They have proper road signs, bus/taxi stops, zebra crossings and street lights which unfortunately do not work at all times. Most of the tarred (access) roads in the residential areas are in a very bad condition, the tarmac is virtually scrapped. Some of these roads need a complete rehabilitation. On the other hand the gravel roads in most of the new residential areas are generally in a bad condition. They are always in a state of disrepair, largely due to lack of regular maintenance as a result of lack of equipment and lack of funds. The situation is made worse by the absence of storm water drainage, resulting in pot holes and ponding. The gravel roads become terribly bad during the rainy season.

Sealed Roads

11.9.4 Sealed roads cover approximately 1585km and comprise of Gravel & Sealed and Sealed. For the entire City network only 6.3% of all sealed roads are in a very good state, 12.5% of all sealed roads are in a good state, 12.7% are in a Fair state, 21.5% are in a poor state and 47% are in a very poor state. Most of the poor roads are access roads.

Table 88: Condition of sealed roads in the city

CONDITION	PERCENTAGE
Very Good state	6.3%
Good state	12.5%
Fair state	12.7%
Poor state	21.5%
Very Poor state	47%

Source: Road Condition Survey Report 2016 - 2017

The table below gives the condition of the sealed roads in % based on the current state of road features and defects assessed during the 2016-2017 Road Condition Survey.

Table 89: Condition of sealed roads

Road Defects	Classification			
	None (Good %)	Moderate (Fair %)	Extensive (Poor %)	Unaccounted %
Potholes	14.7	18.4	20.7	46.2
Cracks	34	7.2	23.1	35.7
Ravelling	22.5	14.7	32.2	30.6
Rutting	16.1	1.1	2.5	80.3
Road Markings	2.8	3.1	22.1	71.9
Surface patches	11.5	24.9	8.6	45

Source: Road Condition Survey Report 2016 - 2017

11.9.5 For the CBD area 41% roads are in a poor state and the rest, i.e. 59% are in a very poor state. The major collector roads that have been resealed in recent years include; Masiyephambili drive, Nketa drive, Cecil drive, Luveve road, Khami road, Old Khami road, Plumtree road and Harare road. Whilst this has improved inter-suburban traffic flow a lot, there is still need to improve road condition to main institutional and commercial centres.

a) Gravel roads

11.9.6 The total length of Gravel roads is 456.86km. Only 6.3% of the gravel roads are in a very good to fair condition. Most of the gravel roads in Bulawayo are in a poor to very poor state; that is about 93.7% of all gravel roads. These are mostly in the high-density

suburbs high density suburbs as well as low density residential areas especially residential neighbourhoods which were developed by private developers after the late 1990s. Some of the areas are inaccessible. The wearing course thickness and cross section had worn off and most of the roads need complete rehabilitation.

Table 90: Condition of Gravel roads in the city

CONDITION	PERCENTAGE
Very Good state	
Good state	6.3%
Fair state	
Poor state	
Very Poor state	93.7%

Source: Road Condition Survey Report

b) Earth Roads

Table 91: Condition of earth roads in the city

CONDITION	PERCENTAGE
Very Good state	5.2%
Good state	22.1%
Fair state	12.2%
Poor state	37.9%
Very Poor state	22.7%

Source: Road condition survey Report

11.9.7 The total length of earth roads is 91.3km. There is need to consider improving the conditions of these roads to gravel roads and possibly single seal. Based on cumulative maintenance statistics, the City has made considerable effort to improve the condition of these roads, with 77.283km in repairs at the end of 2017.

11.9.8 With regards to the adequacy of the road network to facilitate circulation within the city, it is generally adequate for the present levels of demand. There are few impediments of any significance to traffic flow and a good level of cross – linking. What may be needed is a complete rationalization and upgrading of some internal roads especially in the older residential areas to come up with well-defined road hierarchies. This will ensure that minimum road standards are met in order to provide proper access to all plots and also provide servitudes for line infrastructure where possible. It is necessary to ensure that adequate provision is made on the road networks to handle the anticipated future growth of traffic volumes.

11.10 STORMWATER DRAINAGE

11.10.1 Within the City of Bulawayo flows are made up of the various catchments that ultimately channels the stormwater to major rivers surrounding the city. Local flows are channeled via the street collector systems, where they exist, into the main storm water drains which then discharge into the main carrier. These flows are functions of the land use in the area, the amount of development and the type of vegetation. Within the CBD, the majority of the drains are subsurface drains and open channels (trapezoidal and v drains) are employed within the city suburbs.

11.10.2 Below is the current status quo of drainage network within the city.

Table 92: Drainage Conditions in the city

Drainage Condition	Poor	Fair	Good	(Blank)	Grand Total
Earth	60	2		29	91
Gravel	145	120	78	223	566
Gravel & Sealed	18	21	13	23	75
Sealed	309	432	256	513	1 510
(Blank)	7	7	4	129	147
Grand Total	539	583	351	916	2 389

Source: Road condition survey Report

11.10.3 The drainage within the Central Business Unit comprises partly of sub-surface and surface lined drains. Of these 23.3% are in Good state, 7.75 % Fair, 1.6% in poor state and the 67.4% is unaccounted for, some of the sub surface drains could not be accessed during the assessment. Attached in Appendix is an excel file of the current condition of the drains within the suburbs of the city.

Challenges

11.10.4 Despite challenges of inadequate resources Council is committed to ensuring adequacy of the storm water drainage infrastructure. Vandalism of infrastructure is a big challenge in the City. Major challenges in drainage works maintenance include illegal dumping in streams and drains. This leads to choking and blockage of drains and culverts. Trenching on the road servitude by Telecoms industry players and illegal cultivation on stream banks is another major cause of siltation of drains as well as illegal cultivation. Scouring is also a major problem for the unlined drains especially within the Higher Density suburbs. Within the new developments blocking of the drains by rubble from the construction of the houses is a problem.

Maintenance Strategy

11.10.5 The council is undertaking stormwater drainage maintenance programs and the maintenance of storm water drains involves different activities that include canals, streams and drain cleaning, unblocking of silted culverts, lining of trapezoidal drains, construction of culverts and cutting or slashing of grass. The works are done in house and through community groups selected from each ward. The expenditure was at \$350 732 against a total budget of \$633 740 for the year 2017. By the end of the year 2017 a total of 134.278km of drainage was cleared by both the council and the community groups within city suburbs and the CBD.

Road signage

11.10.6 Road signs in Zimbabwe have previously been aligned to Vienna Convention on road signs and signals concerning the use of shape and colour to indicate function. Recently function. Recently, the Government of Zimbabwe agreed to harmonize traffic signs with those in other SADC countries. The SADC-RTSM became native legislation in Zimbabwe in 2016, the progress of implementation is this in the City of Bulawayo has been commendable and responsive.

11.11 ELECTRICITY/POWER SUPPLIES

11.11.1 Within cities power is distributed from 330/132kV substations to 132/33KV substations located closer to the respective nodes from which it radiates into the hinter lands through 33kV lines. The distribution system within the City consists of 88kV and 33kV distribution networks which supply a number of primary substations where voltage is stepped down to 11kV for local distribution. The 11KV network supplies indoor and outdoor pole or ground mounted substations most of which supply low voltage reticulation to individual consumers.

Bulk Supply points

11.11.2 There are two bulk supply substations at Insukamini and Marvel. These receive power from the 330kV National grid and step it down to the 88kV with some secondary transformation to 33Kv. The capacity of Insukamini is 180MVA while the Marvel substation has a capacity of 425MVA. These two bulk supply substations are interconnected via the 88kV system to provide electricity to the city.

Sub Stations

11.11.3 The Bulawayo power load is supplied through substations listed in Table 93. The table shows the capacity and loading of the various substations. The power infrastructure is

shown on Map 12. These substations supply electricity to clients within the Bulawayo Metropolitan Province. At the present moment the substations have the capacity to meet the requirements for the city which is increasing all at times due to new customers and new developments as well as other new loads.

Table 93: Substations serving the city, installed capacities and loading

Name of Sub Station	Installed Capacity	Substation Loading (MVA)
Marvel 330/88Kv	1 x 175 + 2 x 60	102
Cement 88/11kV	2 x 10	9.95
Criterion 88/11kV	1 x 20 + 1 x 15	10.19
Criterin 11/33kV	1 x 10	6.206
Donnington 88/11kV	2 x 30	17.56
Engutsheni 88/11kV	1 x 50	15.23
Belmont 88/11Kv	1 x 30	16.04
London Road 88/11Kv	2 x 15	6.8
Emganwini 88/11kV	2 x 20	15.23
Valleyfields 88/11kV	2 x 20	21.44
Pumula 88/11 kV	1 x 50	20.3
Hyde Park 88/11kV	1x 20 + 1 x 15	11.88
Mpopoma 88/11kV	1 x 20 + 1 x 10	
Forrestvale 88/11kV	3 x 20	23.89
Glenville 88/11kV	1 x 15 + 1 x 10	14.51
Queens Park 88/11kV	2 x 15	13.8
Insukamini 330/88kV	2 x 175	92
Marvel 88/33kV	1 x 50 + 2 x 40	31
Khumalo 33/11kV	2 x 10	9.03
Ilanda 33/11kV	2 x 10	8.63
Matopos 33/11kV	1 x 10	8.73
Electricity House 33/11 kV	2 x 15	14.31
Fife Street	2 x 7.5	10.25
Steeldale 33/11kV	3 X 15	8.02

Source: ZESA & Job Jika & Associates

88kV System

11.11.4 The 88kV network system consists mainly of overhead lines with some underground cables. These substation are fully inter-connected via the 88kV system so that every substation has an alternative feed. Every substation has an alternative source of power supply in an effort to provide a secure syse. There is Cowdray Park substation currently under construction the capacity of which will be 40MVA; supplied by two 88/11kV

transformers each with 20 MVA capacity. The 88/11kV substations supply residential, commercial and industrial loads.

33kV System

11.11.5 Other residential, commercial and industrial loads are supplied from 33/11kV substations. The 33kV network supplies the city centre, Steeldale Industrial area and the suburbs of Fomona, Hillside, Khumalo, Suburbs, Ilanda and Killarney. It has supply points at Marvel Bulk Substation and at the Bulawayo Power Station. Every substation has an alternative source of power supply in an effort to provide a secure system. Construction of Aerodrome 33/11kV substation with an installed capacity of 30MVA comprised of two 15MVA transformers is nearly complete.

11kV System

11.11.6 The 11kV distribution system is supplied from 88kV and 33kV substations. 11/0.4kV transformers is either ground or pole mounted substations supply the central business district, low density and high density residential areas including commercial and industrial areas by means of either overhead lines or underground cables. The overhead 11kV system is largely inter – connected to provide security of supply by way of alternative feeds.

11.11.7 Substations fed from the underground system are mainly indoor with transformer capacity ranging from 300kVA up to 2000kVA.

Medium and Low Voltage

11.11.8 The low voltage reticulation system consists mainly of overhead lines with some underground cable particularly in the low density residential area. In the high density residential areas substation capacity is based on 2.5kVA per consumer after diversity. The distribution network is based on the basis of 5kVA per consumer after diversity to allow for load growth resulting in the greater use of electricity as a substitute to more traditional fuels such as gas and wood.

The Thermal Power Station

11.11.9 The Thermal power station was commissioned between 1947 and 1957 as an undertaking by the City of Bulawayo. It became part of the Zimbabwe Electricity Supply Authority in 1987 after the amalgamation of all the Local Authority Electricity undertakings. As a result of the need to unbundle business units the plant has joined Zimbabwe Power Company. The thermal power plant is connected to the national grid through 11kV and 33kV systems.

11.11.10 The power station initially had a design capacity of 120MW which had dropped down to 30 MW before the refurbishment exercise commenced in 1997/98. The 30 megawatts was not consistent, there were frequent breakdowns a refurbishment exercise gave the ageing plant a new lease of life as the station capacity has since increased to 90MW.

11.11.11 The existing supply of electricity is expected to meet the power needs of the city during the plan period.

Street Lighting

11.11.12 The city centre, primary, secondary and access roads in the middle and low density areas are provided with street lighting. To date a total of 8 823 street lights have been installed in the city - 1 251 in the CBD, 4 149 in the low density suburbs and 323 along major streets. In the high density residential areas there are no street lights but 382 tower lights which have a wider coverage. However, street lighting is not working most of the time due to vandalism. The new residential areas especially those which have been undertaken by some private developers do not have bituminised roads barely have any street lights or tower lights.

11.12 TELECOMMUNICATIONS

11.12.1 Telecommunication infrastructure in Bulawayo is the responsibility of both TelOne and other players. As the National ICT infrastructure implementing agency for GoZ, TelOne is mandated to:

- Build a national telecommunications backbone infrastructure to provide for Zimbabwe's internal and external communication needs.
- Build backhaul links to hook up with regional and international broadband networks to cater for the country's broadband requirements.
- Provide ICT services to all market segments in Zimbabwe

11.12.2 Tel One is responsible for planning and design of fixed line communication telecommunication infrastructure wherever demand for such infrastructure exists. As a result its network extends from time to time to meet the city's telecommunication needs. The company currently offers voice, internet, data-communication and Digital video on Demand services. Bulawayo is served through 13 nodes located in the Metropolitan district. The company also has a city wide optical fibre network for connecting enterprise customers in the commercial, industrial and residential districts of the city on demand

11.12.3 There is a backlog of demand for additional lines amounting to 1103 voice and 593 broadband lines which all are residential demand and no business backlog. This waiting list expresses the recorded demand. The backlog is mostly in the more recently developed residential areas including parts of Cowdray Park, Emganwini, Mbundane, Umvimilla etc

11.12.3 TelOne services are provided from nodes that each serve a given geographical area. There has been a steady growth in ICT services from enterprise clients and a shift in demand from voice to internet and data services as shown in the table below. The trend has been caused by a combination of shifts in usage patterns and the macro-economic environment.

Table 94: Telephone connection 2014 - 2018

Land Use	Telephone connections 2014	Telephone connections 2015	Telephone connections in 2016	Telephone connections in 2017	Telephone connections in 2018
Voice	56264	56529	46509	46086	47191
Broadband	9103	13335	13903	14981	17109

Source: Tel One

11.12.4 Telecommunication in the city has improved since the introduction of digital systems in the mid-80s (1987). The improvements realised were largely relating to the quality of service, Value Added Services (VAS) and expanded coverage. Whilst the organisation is making efforts to improve telecommunication some of the challenges being experienced in the provision of services include:

- Vandalism of our network and damage to our infrastructure by other service providers as they deploy their own infrastructure.
- Forex challenges.
- Revenue collection challenges.

Electronic mail via telephone lines

11.12.5 Technological Advancement has introduced other services e.g. electronic mail. This service has been regulated for other players such as Zol, power tel etc. However, Tel one is controlling a major stake in the provision of internet services.

Mobile Telephone Network

11.12.6 Due to deregulation, the provision of telecommunication services has allowed other private service providers into the sector. There are three major mobile telephone service providers operating in Bulawayo namely Tel One's Net One, Econet and Telecel which are privately owned.

11.12.7 Base stations are being used by these three cell phone companies within and outside the Municipal boundary. Each base station has a catchment radius. The stations receive transmission from the main exchange via each companies exchange in Harare. There will be need for more land in future residential and industrial developments within the Master Plan period to cater for the demand as there has been a significant increase in the demand for mobile telephone services.

11.13 TRAFFIC AND TRANSPORTATION

11.13.1 The major movement of traffic within the city is centred on all major roads such as Plumtree road, Khami road, 12th Avenue extension, 13th Avenue extension, Luveve road, Leopold Takawira, J.M.N. Nkomo extension, Victoria Falls road, Robert Mugabe Way, Harare Road, Burnside Road, Cecil Avenue, Matopos road. In addition when schools are open there is a lot of traffic on most of the roads leading to the schools. Traffic generated within the residential neighbourhoods accounts for the majority of the traffic. This is a major factor in determining the requirements of development of the road transportation network.

11.13.2 It is to be expected that the most heavily used routes during peak hours are those connecting residential, commercial, industrial and schools. As a result the concentration of vehicular movement is leading from all directions to the city centre.

11.13.3 The traffic flows in the morning and afternoon peak hour are very similar and indicate that they are caused by traffic movement between residence and place of work.

11.13.4 All roads show a substantial increase in traffic over the traffic accounts undertaken in 2000. This is a result of increased vehicle ownership especially as the availability of 2nd hand Japanese vehicles which are more affordable, and the development of new residential areas in areas such as Emganwini, Mbundane, Pumula South and Cowdray Park. Developments within the urban periphery in areas such as Reigate and Hopeville also contribute to an increase in traffic flow through and within the city. As vehicular ownership increases, the number of vehicles expected to use the road network also increases.

Remedial Measures

11.13.5 The most intensive traffic congestion during peak hours is along sixth Avenue and Herbert Chitepo Street, Leopold Takawira and Herbert Chitepo, Sixth Avenue Extension and Lobengula Street, Leopold Takawira and Fort Street, 10th Avenue and Fort Street as well as Herbert Chitepo at 11 at TM Hyper. All these places experience high pedestrian

and traffic (combi) conflicts which is attributed to combis picking up passengers from undesignated points. A thorough roads analysis and traffic planning analysis identify alternative ways to ease the present traffic congestion.

Travel Modes

11.13.6 There are numerous modes of travel in operation within Bulawayo though kombis, private cars, pirate taxis account for most of the trips. There are high volumes of cyclists and pedestrians from the high density residential area to the city centre and industrial areas. In the city centre pedestrian activity accounts for a large portion of the movement of people in the city. This means that a traffic system must also cater for this modes of traffic. There are problems of traffic flow associated with large pedestrian movements which has been compounded by informal sector activities being undertaken within pavements. There is need to examine options for mitigating such problems and this requires special attention and calls for a separate study to resolve the problem of pedestrian traffic in the city centre.

Vehicle Ownership

11.13.7 The latest statistics of Central Vehicle Registry (CVR) indicates that there were 11 074 registered vehicles in Bulawayo as at November 2018. The registration of vehicles has been computerized and hence the information is assumed to be accurate. The latest figure of 11 074 relates to vehicles owned by individuals and private companies. Table 94 below gives a breakdown of the number and types of vehicles registered in Bulawayo between 2013 and 2018. In addition the Government of Zimbabwe and its agencies own several vehicles stationed in Bulawayo.

Table 95: Number of registered vehicles in Bulawayo as at November 2018

BODY TYPE	2013	2014	2015	2016	2017	2018
4*4	0	0	0	2	0	0
Ambulance	0	0	0	6	0	5
Amphibian	0	0	0	1	0	0
Artic Horse	1	0	0	5	1	3
Bakkie	0	0	1	1	2	3
Bitumen Distributor	0	0	0	0	0	1
Boat Trailer	0	0	3	6	10	8
Bottlers	0	0	2	1	0	0

Bowser	0	0	0	3	0	0
Box (Stakeside/Highsides)	0	1	16	49	15	10
Box Trailer	0	0	0	29	111	76
Box Truck	0	0	4	15	3	2
Box Van	1	1	10	15	9	9
Bread Van	0	0	0	10	0	0
Breakdown	0	0	0	0	1	0
Bulk Grain	0	0	1	0	0	0
Bulk Side	0	0	0	0	0	1
Bull Maize	0	1	0	0	0	0
Bus	0	5	13	44	39	38
Caravan	0	0	3	9	3	3
Cattle/Livestock Transporter	0	0	0	0	0	1
Club Cab	0	0	0	1	0	0
Coach	1	0	0	2	0	2
Compactor	0	0	0	6	1	1
Convertible (Drop Head/Open)	0	0	1	2	1	1
Coupe	0	0	1	1	3	1
Crane	0	0	0	3	0	1
Crane Truck	0	0	0	1	0	1
Curtain Sider	0	0	2	1	1	1
Curtainsided Truck	0	1	0	7	2	0
Curtainsider	0	1	0	6	0	1
Curtainsider Trailer	1	0	0	1	1	2
Double Cab	4	12	86	275	187	245
Drop Sides	2	2	16	52	43	49
Dropside Trailer	0	0	2	1	6	20
Dump Digger	0	0	1	1	0	0
Dump Truck	0	0	0	3	0	0
E/Cab	0	0	0	0	2	0
Equiptype 1000	0	0	0	0	1	0
Estate Car	2	0	7	26	7	8
Ext Cab	0	0	0	0	1	0
Extended Cab	0	0	1	1	4	2
Extra Cab	0	0	2	9	6	7
Flat Deck	0	1	4	18	42	37
Flat Lorry	0	0	0	1	1	1
Flatbed	0	0	3	3	2	1
Flatbed Trailer	0	0	0	1	24	57
Fork Truck/Fork Lift	0	0	0	1	0	1
Fridge Truck	0	0	0	3	1	0

Fuel Tanker	0	0	2	0	0	0
Grader	0	0	0	3	0	0
Hardtop	0	0	0	1	0	2
Hatch Back	24	73	332	870	258	275
Hatchback	1	4	64	482	1685	2806
High Sides	0	0	0	0	0	1
Ho Crew Cab	0	0	1	0	0	1
Horse	1	2	6	28	22	24
Horse Box	0	2	7	13	9	11
Insulated Van	3	0	1	1	0	1
International	0	0	0	0	2	0
Jeep	0	0	0	1	0	1
King Cab	0	0	2	1	1	1
Kombi	0	0	2	6	3	7
Laguage Trailer	0	0	1	1	0	0
Light Trailer	0	0	0	6	1	0
Limousine	0	1	0	0	0	1
Loader	0	0	0	0	3	0
Lorry	0	0	1	3	2	3
Mechanical Horse	0	0	0	0	1	2
Mechanical Horse (5th Wheel)	0	1	15	26	39	38
Microbus/Minibus	11	24	175	365	301	430
Miller	0	0	1	1	0	1
Mini Bus	4	8	6	86	465	439
Mobile Crane	0	0	0	0	0	1
Motor Bike	1	0	0	15	17	51
Motor Cycle	1	8	34	58	40	16
Mpv	0	0	0	1	0	0
Omnibus	1	3	8	28	29	30
Open Deck	0	0	1	0	0	1
Panel Van	7	24	181	342	86	93
Panel Van (Van)	1	1	22	52	20	23
Panelvan	0	0	0	5	1	0
Pick-Up	2	1	8	138	37	33
Pick Up	0	3	3	46	275	305
Pickup(Vannet/Delivery/Tricar)	5	16	253	448	347	370
Platform Trailer	0	0	0	2	0	1
Ranger	0	0	1	0	1	0
Reefer	0	0	0	0	1	4
Refrigerated Trailer	0	0	0	0	1	1
Refrigerated Truck	0	0	0	1	1	0

Refuse Collector	0	0	0	0	2	0
Rigid Truck	1	0	3	26	107	176
Road Tractor	0	0	0	3	45	101
S/Cab	0	0	0	2	0	0
Safari Car	0	0	1	0	0	0
Saloon	1	1	6	23	7	8
Satation Wagon	0	0	3	20	1	1
Scooter	0	1	0	1	0	1
Sedan	18	60	521	1341	1583	2138
Semi Trailer	0	0	0	3	0	0
Side Tipper	0	0	0	0	3	5
Single Cab	3	2	11	77	48	63
Sleeper Cab	0	0	0	1	0	0
Smart Cab	0	0	3	8	1	3
Special Purpose Veh	0	0	0	1	6	5
Sports	0	0	0	2	0	1
Station Wagon	0	5	5	126	864	1195
Stationwagon (Ranchwagon)	28	60	395	952	278	314
Steel	0	0	1	0	0	0
Super Cab	0	0	0	3	0	3
Suv	0	1	14	107	155	269
Tanker	0	0	1	4	6	5
Tanker - Water Telescopic	0	0	0	2	0	1
Tanker Trailer	0	0	0	0	5	6
Tipper	1	1	10	14	16	19
Tractor	0	0	10	11	8	5
Tractor Horse	7	2	3	4	3	4
Trailed Tanker	0	0	0	1	0	0
Trailer	6	7	51	159	77	90
Truck	5	23	142	430	455	501
Twin Cab	0	0	0	7	4	0
Twin Cab	0	0	0	5	146	235
Utility	0	0	1	0	0	0
Van	2	2	14	75	228	352
Wagon	0	1	1	4	0	1
Waterbowser	0	0	0	1	0	0
Wrecker	0	0	0	1	0	0
-	0	0	0	0	1	0
Total	146	362	2 502	7 066	8 227	11 074

Source: Central Vehicle Registry

11.13.8 The historical traffic data in the table above shows that the traffic growth within the period 2013-2018 was marginal for heavy vehicles. On the other hand there is an increase in light motor vehicles. Observations in recent years have seen increase in light vehicle traffic in all the busy links. An average percentage increase in total volume of 6% is expected by year 2034. A traffic growth rate of 2.65% up to 2020, as indicated in the 2000-2015 Master Plan seems to have been a fair projection, for planning purposes, providing a realistic demand scenario. A strategy for sustaining the carrying capacity of the City's road networks premised on a growth rate of up to 3- 4%, in line with other urban growth rates in the country. The city is accommodating this growth in traffic at the moment and in view of the wide road and ring road design we hope that the city will cope even in future.

11.14 PUBLIC TRANSPORT

11.14.1 There are four main types of public transport in use in the city. There are buses, mini bus, combis, metered taxi and pirate taxis. Buses are mainly used by schools to ferry pupils, government to carry civil servants and companies to carry their employees. The mini buses, combis and pirate taxis constitute the most prominent forms of public transport linking the city centre and the residential area. Metered taxis are mainly for transportation mainly within the city and residential areas though they can operate within a 40km radius while mini buses and combis mainly provide inter - city passenger service. The metered taxis have designated parking areas and these are relatively expensive for the majority of the population and mainly service the casual visitor or tourist sector, although these are also used by employers to ferry workers at night.

11.14.2 Long distance buses generally terminate at the main bus at Renkini, Entumbane and Nkulumane where travelers going further are transferred to the combi system which then acts as a next order distributor. The main bus stations are the busiest public transport terminuses (or rank) in Bulawayo. The bus terminuses facilitate the transfer of passengers between bus, mini bus, tax in the city. As for combi ranks in the city include the main Basch street (Egodini) mini bus/combi tax rank which is due for development as well as other mini bus terminuses, TM Hyper, 3rd avenue & Lobengula, 3rd Avenue & J.M.N. Nkomo, City Hall, Samuel Parirenyatwa and Harare road. There are some designated drop and pick up points for combis and taxis along the major roads in the city.

11.14.3 The most extensive public transport system is being provided by the mini bus or combi operators. This can be seen by the large number of travellers using the mode of transport. The average occupancy of each combi during peak hours is eighteen (18) which is high. In an effort to improve the public transport system Bulawayo City Council facilitated the establishment of three (3) companies namely Tshova Mubaiwa Transport Co-operative (TMC), Bulawayo United Passenger Transport Association (BUPTA),

Bulawayo City Transit (BCT) company. These three companies dominate the public transport industry but there are other kombi operators who are not members of any of these companies. However, it seems most routes are being serviced by BUPTA. The public transport system services various routes in the city as shown on Map 13. However, there seems to be an overlap on some routes by some of the operators especially in Pumula, Luveve and Cowdray Park. The expectation is that in future these companies would eventually introduce 25 seater or buses on the more popular routes to cut down on the number of vehicles in use. This may improve traffic flows and probably commuter safety. Some attempts at introducing larger buses in the early 2000s have failed as they were slow, had many bus stops and the fill in time was too long to allow all the passengers to reach their destinations in targeted time. The bus/combi stop facility and drop off points have been formalized. However, despite the provision of facilities in an effort to improve safety, the number of public service vehicles which are still pulling off the road into road shoulders to drop and pick passengers is still high. This is presenting a challenge in terms of damaging road shoulders and edges of surfaced roads as well as compromising passenger's safety.

11.14.4 The envisaged main public transport station (Egodini) is located between streets Lobengula to the east, Basch Street to the west, 6th avenue to the north and 8th avenue on the southern end. Development of the transport station is currently underway and it is expected to provide a consolidated form of public transport within the CBD. Currently public transporters are loading from several locations in the CBD. It is envisaged that this development will eventually bring sanity to the inner city. Some of the anticipated developments at Egodini are:

- 30 000m² intermodal transport hub which includes both covered and uncovered sections
- 12 Regional & cross border bus and 70 minibus taxi loading and offloading handling facility.
- Offsite minibus taxi holding facility with maximum capacity of 300 minibus taxis
- 410 visitor parking bays
- Pedestrian routes along Lobengula Street between 6th and 8th avenues

11.14.5 Projections are that the envisaged transport hub should service the town adequately up to the end of the period under review.

11.15 SPEED LIMITS

11.15.1 The speed limits in force in the city currently falls into two categories. There is a general speed limit of 60km/hour on all the roads within the city except for some major roads within the city where the speed limit is 80km/hr. The presence of traffic lights and

junctions within the city's road network plays a role in reducing average traffic speed. The traffic light changeovers along the major roads is also playing a large role in terms of reducing speed as the signals are synchronized. However, the problem of speed in the city is directly related to law enforcement. Speed zoning which is a traffic management measure and the timing of traffic light changes is important in managing the overall flow of traffic in the city. Traffic tends to move naturally in pulses and an ideal traffic management system should foresee these pulses to facilitate the timing of traffic changeovers to pass through them. These predictions can only be effective if the speed limits on the roads are being adhered to. Speed enforcement has much to do with the smooth flow of traffic as well as ensuring public safety.

Car Parking

11.15.2 There is adequate car parking space within the city except within certain areas within the city especially at church sites, government offices and some commercial areas. However, there are few areas where this is a major concern. Parking problem are often experienced at Mhlahlandlela Government Complex as well as within the core Central Business District. However, the parking problems are at certain times.

11.15.3 Office and commercial developments such as the Tower Block, Fidelity Life Centre and at the Bulawayo Centre have provided underground parking but this does not constitute general public parking.

Railway Crossings

11.15.4 There are several road/rail level crossings in the city – on Mpopoma Drive, 13th Avenue Extension, Basch street, Khami road, Emganwini off Plumtree road, Cowdray park road. Most of the road/rail crossings are along 13th Avenue extension. The road/rail crossings mainly exist in the industrial areas were designed as railway spurs to serve some of the major industrial areas while others constitute crossing from destinations such as Plumtree and Victoria Falls. The road/rail crossing do not constitute a major traffic management problem at the moment as there are no accidents which have been recorded from the rail crossings.

Accident Statistics

11.15.5 A total number of 231 have been recorded along the major roads in the city centre and along roads linking the city with other major settlements since January 2018 by the Zimbabwe Republic Police traffic division. The following table shows roads in the city with a high number of accidents

Table 96: Accident statistics along major roads, January – August 2018

Name of Road	Type of Accident								
	Total	Veh - veh	Veh – ped	Veh - cyclist	Veh - obj	Veh – animal	Veh – M/bike	Sole party	Ped - cyclist
J. M. N. Nkomo	25	21	02	00	02	00	00	00	00
R.G Mugabe	24	18	04	02	00	00	00	00	00
Fife Street	22	16	02	00	04	00	00	00	00
Fort Street	25	22	01	00	01	00	01	00	00
L. Takawira	13	11	01	00	01	00	00	00	00
H. Chitepo	20	15	03	01	01	00	00	00	00
Masiyephambili Drive	15	13	01	00	00	00	00	01	00
Luveve Road	11	08	02	00	00	00	00	01	00
J. Moyo	20	16	02	00	01	00	00	01	00
Nketa Drive	11	10	00	00	01	00	00	00	00
Harare Road	08	06	01	00	01	00	00	00	00
Gwanda Road	09	07	01	00	01	00	00	00	00
Plumtree Road	15	12	00	02	00	00	00	01	00
Khami Road	13	08	00	00	03	01	00	01	00

Source: Zimbabwe Republic Police traffic division

11.15.6 From the above table it is interesting to note that roads in the city centre which have high incidences of accidents are traffic light controlled. Five roads which are experiencing a high number of accidents are in the city centre and these are J.M.N Nkomo street, Fort street, R.G. Mugabe way, Fife street and Herbert Chitepo. The major reasons which may be attributed to high incidences of accidents high volumes of traffic on those roads, failure to obey road signs and rules, following too close and speeding. The intersections which are experiencing a high number of accidents are shown in the table below:

Table 97: Accident statistics along major intersections

Name of Intersection	TYPE OF ACCIDENT								
	TOTAL	Veh - veh	Veh - ped	Veh - cyclist	Veh - object	Veh - animal	Veh – M/bike	Sole party	Ped - cyclist
J. Nkomo/10 th Ave	09	08	01	00	00	00	00	00	00
H. Chitepo/10 th Ave	13	09	04	00	00	00	00	00	00
H. Chitepo/6 th Ave	07	06	01	00	00	00	00	00	00
Fort Street/11 th Ave	08	08	00	00	00	00	00	00	00
Fort Street/13 th Ave	06	06	00	00	00	00	00	00	00
Khami Road/Nketa Drive	07	06	00	00	00	00	00	01	00
J. Moyo/12 th Ave	08	06	01	00	01	00	00	00	00
Nketa Drive/Hyde Park	08	07	00	00	01	00	00	00	00
Khami Road/Masiyephambili	09	08	01	00	00	00	00	00	00
Fort St/10 th Ave	08	08	00	00	00	00	00	00	00

Source: Zimbabwe Republic Police Road Traffic Division

11.15.7 As shown in the table above a total of 83 road accidents occurred along major intersections. Most of the accidents involve vehicle to vehicle and they constitute 88% of all the road accidents in the city centre. Other accidents along intersection involve vehicle – pedestrian, vehicle – object and sole party. The major causes of accidents along major roads and intersection in the city from January 2016 to 31August 2018 are shown in the table below:

Table 98: Major causes of road accidents in the City

Cause of Accident	2016	2017	2018 (January – August)
Speeding	549	501	421
Vehicle Defects	117	60	54
Animals	125	141	115
Following too Close	913	854	476
Fatigue	20	28	10
Overtaking Error	378	448	434
Negligent pedestrian	55	44	30
Poor Road Condition	08	00	00
Failure to give way to “controlled”	371	357	267
Failure to Give way to “uncontrolled”	275	324	206
Turning in front of oncoming traffic	313	315	299
Reversing error	818	870	479
Parking error	177	267	133
Negligent Cyclist	34	25	14
Inattention or misjudgement	304	472	696
Others	1 073	796	426
Total	5 217	5 502	4 060

Source: Zimbabwe Republic Police, Traffic Division

11.15.8 The major causes of accidents in the city is following too close followed by reversing error while the least causes of road accidents is a result of a negligent cyclist. There are more accidents on Fridays and Saturdays compared to other workdays. During the week most accidents occur during peak hours between 7 – 8am as well as afternoon hours between 4 to 6 pm.

11.15.9 Black spots in the city are Nguboyenj flyover along Luveve road, 12 – 15km peg along the Bulawayo – Harare road, Nketa drive/Hyde park road, Masiyephambili road/B. Burombo road, Masiyephambili road/Luveve road, Khami road/Masiyephambili road and Bulawayo – Khamiroad.

Enforcement of Traffic Rules and Regulations

11.15.10 Traffic law in the city is governed by national legislation, namely the Road Traffic Act and is enforced by the Zimbabwe Republic Police. BCC has no powers in the enforcement of road traffic laws and regulations except the introduction of by laws. However, these by – laws may not override or conflict with any written law in force in Zimbabwe. However, in an effort to enforce traffic rules and regulations in the city has introduced parking and clamping by laws.

Railway Traffic

11.15.11 The National Railways of Zimbabwe (NRZ) is a railway parastatal of Zimbabwe which was established during the time of British colonial rule and was called Rhodesia Railways until 1980. Segments of the railway line were conceived as part of the Cairo railway line. In the colonial era, Rhodesia Railways was the state railway operator in both Southern Rhodesia (now Zimbabwe) and Northern Rhodesia (now Zambia).

11.15.12 The route length of the railway system in Zimbabwe has a track length of 4 313 km and route distance of 2 565 kilometres of which 817km are branch lines. Some 313 km of the route length, from Dabuka to Harare, is electrified. This line has been vandalized and is no longer in operation. In addition, there is 385 km of track operated by the Bulawayo Beitbridge Railway concession. Of the total route length, 110 kilometres constitute the main line between Ramatlabama in the south and Bulawayo and 439 kilometres to the west in Victoria Falls, 331 km to the east in Beitbridge and 439 km to the north in Harare. The branch lines are serving some major establishments especially mining companies such as Hwange Colliery Company Limited, Makomo resources, Natural Stone, Quarrying enterprises, Ilford services and Dorowa mines. NRZ owns a fleet of 47 diesel locomotives constituting of (22 mainline and 25 shunt), 7 350 wagons (3 340 operational and 3 810 parked) and 309 passenger coaches (206 parked).

11.15.13 Today NRZ forms a crucial link in the railway systems of the Southern Africa region. It is worth noting that NRZ's geographic position makes it strategic on the North South Corridor, thus it is the transit corridor for traffics to/from the landlocked countries in the north (Zambia, DRC etc.) to /from the ports in South Africa and Mozambique.

Along with Bulawayo Beitbridge Railway (BBR)⁴ the National Railways of Zimbabwe provides a connection to South Africa Namibia and Swaziland and an unbroken rail line to the Democratic Republic of Congo (Zaire), Angola, Mozambique, Tanzania and Malawi. Bulawayo lies on the main railway line and it serves as a rail trans-shipment centre. Local traffic being serviced by the NRZ consists of coal, chrome ore, coke, ferro chrome, cement, sugar cane and granite. Transit traffic to neighbouring countries mainly consists of diesel, wheat, containers, maize, 270ertilizer, salt and coal.

11.15.14 The Bulawayo railway station is still busy though the level of activity has significantly dropped when compared to the pre-multi-currency era. Among the factors militating against performance is road competition from a macro level and poor coaches condition coupled with poor time keeping by the trains. NRZ is still servicing Harare and Victoria Falls routes with passenger trains as shown below:

Table 99: National Railways of Zimbabwe Passenger service provision from Bulawayo

Route	Frequency	Time of Travel
Harare-Bulawayo	Sunday, Tuesday, Friday	Night
Bulawayo-Harare	Monday, Thursday, Saturday	Night
Bulawayo-Victoria Falls	Daily except Monday, Wednesday	Night
Victoria Falls-Bulawayo	Daily except Tuesday, Thursday	Night

Source: National Railways of Zimbabwe

11.15.15 There is potential of additional freight and passenger service to meet the increasing demands. The parastatal has a great role to play in the city's and the country's drive toward industrialization and modernization. Statistics in Table 5 reveal the freight tonnage handled by NRZ between 2013 and 2017. On the overall there is a decline in the freight tonnage handled by NRZ which may be attributed to the inherent competition between rail and road haulage. The planning of both modes of transport has to be coordinated and synchronized to avoid unnecessary and wasteful competition. There is also a tremendous decline in the volume of passenger traffic handled by the NRZ within the same period. This is easily explained by the introduction of better services and luxury coaches.

⁴ BBR was formed in 1997 it is in partnership with NRZ in managing a concession which includes a Built-Operate-Transfer agreement to construct 150km of new track and upgrade 172km existing track. NRZ and BBR are not competitors but are complementary players in rail business handling.

Table 100: Freight tonnage handled between 2013 & 2017

Freight (000t)	2013	2014	2015	2016	2017
Local	2734	2756	2428	1971	2401
Import	709	736	640	831	538
Export	0	0	0	0	0
Transit	326	361	257	125	208
Total	3769	3853	3325	2927	3147
Passenger(000)	1037	499	602	210	334

Source: NRZ & Consultants

11.15.16 Some of the challenges being experienced by the NRZ in an effort to achieve its objectives include; lack of recapitalization funding resulting in slow recovery by industry, fewer reliable resources (locomotives and wagons), low business availability owing to depressed economy, high track length under speed restriction (cautions) affecting turnaround of resources, vandalized and obsolete infrastructure and stiff competition from the road.

11.15.17 The NRZ is currently conducting feasibility studies for commercial developments on the vacant pockets of the Railway Reserve. There are also plans to expand Mpopoma marshalling yard and upgrading Bulawayo station. There are also recapitalisation negotiations to the tune of US\$400 million between NRZ and Transnet/DIDG consortium are ongoing. The objective of the project is therefore to enable NRZ to restore operational capacity and capability to profitably support economic activity through public transportation of goods and passengers.

Joshua Mqhabuko International Airport

11.15.18 The airport is located about 21km from the city centre. The airport was established in 1958 but was upgraded in 2001 to replace the old Bulawayo international airport on the same premises. The airport was officially opened in 2013 when all the works were complete. The site for the airport is about 700 hectares and is all fenced. The improvements which were being undertaken during the upgrading process were undertaken within the same premises. The upgrading process increased the building three times and improved through put from 500 000 to 1.5 million passengers per annum. During the upgrading process the major works which were undertaken were mainly civils such as increasing the terminal building, improving power reticulation by developing 8 sub stations, construction of a 2km drainage, access roads, increasing car parking facilities from 250 to 500 and the construction of sewer ponds. There were no improvements to the runway at the time of upgrading the airport.

11.15.19 The airport has two (2) runways. The main runway is 2 588m x 45m and can accommodate major aircraft such as the B 767 200 series which has the capacity to carry 250 passengers as well as a smaller runway which is 1 347m x 30m. The smaller runway handles smaller aircraft with capacity to carry a maximum of about 37 passengers.

11.15.20 Whilst the airport is looking forward to being an aerocity with some commercial developments, warehousing and hotel developments to improve activity at airport in future it restricts the use of land within its vicinity in line with the Civil Aviation Authority zone map. As a result any proposed developments should be done in close liaison with the Civil Aviation Authority. 3 zones (red, yellow and green) have to be strictly adhered to in terms of developments within the 5km radius. The red zone is strictly related to airport related uses. The yellow zone is for temporary industrial while the green is for controlled housing development. The development should be single storey and stand sizes should be a minimum of 1 000m².

CHAPTER 12

ENVIRONMENTAL AUDITS OF KEY PHYSICAL DEVELOPMENTS AND STATE OF THE ENVIRONMENT

12.1 AIM AND OBJECTIVES

12.1.1 This chapter presents an appraisal of the condition of Bulawayo's environment. Prior to the enactment of the Environmental Impact Assessment (EIA) Act 20: 27 of 2002, some of the major developments were carried out without the benefit of an EIA. This meant that possible environmental impacts of such developments were not taken into consideration and consequently no mitigation measures were put in place. The aim of conducting environmental audits of key existing developments in Bulawayo is therefore to identify impacts on the environment by such developments which were not considered or predicted at the time when the developments were undertaken. Importantly, the environmental management and protection programmes that are in place will also be evaluated during the audits.

12.1.2 The specific objectives of Environmental Audits (EA) of existing key developments within the Municipal boundary are:

- i) To identify the environmental components which have been affected by such existing key developments, land use and environmental practices and other human activities
- ii) To assess the environmental effects and consequences of the above; and
- iii) To recommend impact mitigation measures at the development proposal stage of the project

12.2 ENVIRONMENTAL SETTINGS OF KEY EXISTING DEVELOPMENTS

12.2.1 There are some key developments in Bulawayo which have been identified as being set in an environmentally sensitive and fragile area. Such developments and the activities being undertaken on them have impacts on the fragile environments on which they exist. Such developments are on the flood plains which places them at risk in the form of collapse potentials of the soils on which these structures have been built; vulnerability to erosion of foundations, flooding and consequent destruction of property. Developments in this category are mainly infill layouts e.g. in Ilanda.

12.2.2 Other activities in Bulawayo whose activities in one way or the other impact on the environment are the power station. This has implications in terms of pollution to

property and people in the city centre within the immediate vicinity of the power station are affected by activities at the power station. Old Nick Mine and mining special grants/small scale mining, fuel storage tanks, the railway station and various industrial activities and commercial activities such as the district commercial centre are some of the major developments which were undertaken without the benefit of EIAs.

- 12.2.3 In terms of environmental settings most of the major developments mentioned in the preceding paragraphs are industrial in nature they and were located away from residential land use zones. Other developments or activities observed to have impacts on the environment in Bulawayo include the Bus Rank, Fuel Filling Stations, Vehicle maintenance workshops and Garages, pit latrines, sewerage ponds, the landfill as well as excavations for sand and gravel. Details of the environmental practices and impacts arising from some of the activities are presented in section 13.3.

12.3 ENVIRONMENTAL ELEMENTS IMPACTED BY EXISTING KEY DEVELOPMENTS AND ENVIRONMENTAL PRACTICES

- 12.3.1 The environmental elements which may be negatively impacted by the various activities of some key developments and other environmental practices and ambient air quality, water, soil, the general landscape and general public environmental health. Impacts on these environmental elements emanate from the practices in the areas of waste management (solid and liquid), construction activities; sand and gravel excavations, handling of used engine oils and fuel products. The main recipients of the negative impacts from these environmental practices in the various sectors are the natural and physical environment as well as the river systems. Humans are also at large risk due largely to pollution of the surface and underground water, the atmosphere as well as the types and manner of waste disposal in the city including the landfill.

Water Pollution

- 12.3.2 The 2012 population census report indicated that 96 percent of the enumerated population had access to safe water, some households still obtain their water from community stand pipes or natural sources which are more vulnerable to contamination. Bulawayo's water supply are exposed to pollution from cyanide tainted water due to mining activities in the catchment area.
- 12.3.3 The city does not seem to have a serious environmental problem in terms of water treatment and sewerage there seems to be overloading on the existing treatment works. This is due to that most of the wastewater facilities are currently operating at design capacity, the low flow levels being experienced tend to encourage an increase in acids resulting in sewer collapse. In some areas constant sewer blockages and spill off has been experienced posing an environmental health hazard.

- 12.3.4 Sewerage disposal methods are a major source of water pollution (both surface and underground water) in the city. This has to do with the large number of households who now use pit latrines. Due to the high permeability of the soils, decomposed compound with high nitrate contents may percolate through to the underground water resources, thus resulting in water contamination.

Sewage Pollution

- 12.3.5 Furthermore, effluent from the sewerage treatment works discharge directly into the rivers while some industrial establishments have often being found to be discharging some waste into the river system. The river systems which bifurcate the built-up environment and city periphery and which eventually form part of a larger river system are recipient to sewage discharge from burst sewers in the built environment to discharge of effluent from the sewage ponds. The municipality faces challenges in maintaining sewerage infrastructure largely due to the dire economic challenges facing the country. Cases in point are the discharge of raw sewage into Matshemhlophe river, Umguza river, Khami river, etc. Public health is at risk through domestic use of polluted water and also through fishing and swimming in polluted waters. The recreational use of Umguza River is adversely impacted and severely hampered by the high levels of pollution which have not been attended to for many years.

Industrial Pollution

- 12.3.6 Another source of surface and groundwater pollution in the city are the filling stations and motor repair garages/workshops. There are high possibilities of petrol, diesel and engine oil leakages and spillages at these establishments finding its way into the river system through incidental run – offs. Some industrial establishments also discharge waste into the streams and rivers that empty drain into Umguza river contributing to pollution and disruption of the ecology.
- 12.3.7 This audit notes that although the industrial sector in the city is currently depressed, and as earlier indicated there are still industrial pollutants in the city. The study is mindful of the fact that during the prime of Bulawayo's status as the industrial hub in the country, industrial effluent was rampant and with adverse environmental impacts. The conduits of such pollution still exist and preventative measures to minimize pollution are not adequate such that at the time the city regains its industrial hub status, the environment would be more vulnerable to harm.

Solid Waste

- 12.3.8 The Ngozi informal settlement around the Richmond landfill site is a concern in particular in so far as the provisions of various legislation are taken into account. The settlement contravenes provisions of various pieces of legislation, viz, Town and Country Planning ACT, Public Health Act, Environmental Management Act not leaving out municipal by laws. There could be some underground seepage and the situation is compounded by the non – provision of a monitoring borehole. In addition, the juxtaposition of a settlement (be it informal or planned) is a travesty of the principles of public and environmental healthcare.
- 12.3.9 Despite efforts by the Environmental Health Department of Council to institute some order in terms of refuse disposal, illegal dumping sites still exist in the city especially on the road reserves and open spaces. This poses a threat to good environmental care. The efficiency of the municipal waste collection system has deteriorated over the past decade and this has adversely affected the environment as waste generators end up disposing of waste at undesignated sites.
- 12.3.10 The environmental audit also revealed that another source of water pollution is human excrement in the bush. The 2012 population and housing census revealed that 1.3% of the population use the bush to relieve themselves. This may have increased as there have been more residential developments since then and which are not fully serviced. These are washed into the river system during heavy rains.

New Unserved neighbourhoods

- 12.3.11 The city has seen the sprouting of new neighbourhoods some of which do not have service infrastructure and are dependent either on on-site sanitation systems or the use “bush toilets”. Some of these settlements are not provided with refuse removal services and there is an incidence of littering and pollution of the environment.

Air Pollution

- 12.3.12 Air quality as an environmental element is impacted by land use and the various environmental practices within the Municipal area and is concentrated within the heavy industrial areas and also within the high density areas. Sources of air pollution emanate from:
- i) The industrial zones of Bulawayo are not specifically polluted but there are some activities being undertaken which cause excessive pollution. The cement factory along Harare road is a major polluter as noted from its impacts on the vegetation and surrounding built environment. Brick yards in the same location at Willsgrove also create excessive dust and smoke pollution.

- ii) Coal dust and smoke emanating from the power station into the atmosphere. Though impact may appear to be localized to the area it is affecting people and property in the city centre. However, the areas within the immediate vicinity are the most affected by coal dusts and smoke emissions. Decaying solid waste dumped at random within open spaces and road reserves as well as burning of solid waste in pits dug within residential properties.
- iii) Foul odours emanating from ventilated improved pit latrines.
- iv) Smoke emissions from various industrial establishments.
- v) Emissions from vehicles especially haulage trucks. This is in the form of carbon monoxide pollution which is which are harmful to the body when inhaled over a long period of time continuously. The release of smoke emissions into the atmosphere over a long period of time leads to a depletion of the ozone layer.
- vi) Burning of wood fuel for cooking purposes in the high density areas emits smoke and particles into the atmosphere.
- vii) Dust is also an important cause of reduced air quality in the city. The main periods of dust pollution are during the dry season especially in the months of July to October when windy weather is more prevalent.

12.3.13 In general, Bulawayo does not experience dangerous and health affecting levels of air pollution. This is partly due to the advantage of the city's topography and climate. Being located in a high veld without entrapping hills and mountains, polluted air can quickly escape to the upper levels of the atmosphere. High levels of sunshine also burn off the polluted air. This is noticeable especially during the winter months when some temperature inversion exists for the first few hours of the morning leading to a pall of smoke filled air hanging over the western suburbs and central area.

Noise Pollution

12.3.13 Noise pollution in Bulawayo is generally not too high except for certain areas along the main roads and railway lines. In addition, land use incompatibilities or improper land uses has been the main cause of an increased number of residential areas being susceptible to high levels of noise pollution.

Landscape and Soil Degradation

12.3.14 The general landscape is being defaced as a result of mining activities, dumping of construction rubble and the excavation of burrow pits for sand and other construction aggregates. Some of the burrow pits have been turned into refuse dumping areas. The burrow pits apart from posing a danger to human lives degrade the physical environment, making it aesthetically unpleasant. In addition, burrow pits make such areas sterile in the sense that they become

difficult and expensive to develop on considering the costs of reclamation and rehabilitation.

- 12.3.15 The are some considerable areas of land within the Municipal boundaries and some parts of the peri – urban which are experiencing challenges of continuous cutting down of trees for fuelwood and cultivation without regard for preventing soil erosion consequently leading to the siltation of rivers.
- 12.3.16 Tree cutting is a major problem in all parts of the study area. There is a major demand for wood fuel that most mature trees in the areas abutting the high density suburbs have been removed. This also has an impact upon the fauna, the larger numbers of which if not trapped and snared have little to no habitat within which to survive.
- 12.3.17 Illegal dumping is a growing problem in and around the city. For example certain areas in the city especially where there is a large number of undeveloped stands or land not yet planned in the low density areas, Mahatshula, Hyde Park and Cowdray are becoming eyesores as households and contractors dump solid waste and assorted rubbish (pampers) and construction rubble. This in turn leads to a health hazard. The social problem of person litter disposal by the public is rooted in a lack of civic pride and responsibility and needs to be addressed at an early age by parents and through schools.

12.4 ENVIRONMENTAL STATUS AND CONCLUSION

- 12.4.1 From the presentations in the preceding sections, the environmental status of Bulawayo can be summarised as follows:

- i) There are a number of areas within the city which currently show signs and characteristics of high environmental degradation. These include: un-reclaimed quarry sites, polluted watercourses such as the Matshemhlophe spruit, polluted dams such as Khami; land fill sites; squatter settlement sites and areas in close proximity to the cement industrial area.

The location of major physical developments on environmentally sensitive areas (rivers and streams) and activities on such developments, impact negatively on the fragile environments and also place such developments at risk;

- ii) Poor handling of petroleum products also impact on the above environmental elements, particularly surface water, underground water and soil;
- iii) Poor sanitation practices and waste management (solid and liquid) impact on various environmental elements such as surface and underground water, soils and air;

- iv) Human activities are affecting the general landscape especially mining for gravel and sand aggregates;
- v) The unsustainable utilization of natural resources for example the rampant felling of trees for use as fuel wood has resulted in serious damages to woodland composition and structure as exotic tree now constitute the dominant tree species in the city. The cutting down of trees has some environmental implications in the form of soil erosion.

12.4.2 Finally this chapter has focused on assessing the impacts of key existing developments and environmental practices on the environment. During this process some environment elements which are impacted upon and how they are impacted has been outlined. These would constitute a basis of mitigation measures to be presented at the development proposals stage.