GOVERNMENT OF KENYA
MINISTRY OF LAND, HOUSING
AND URBAN DEVELOPMENT

COUNTY GOVERNMENT OF
NAKURU

DIGITAL TOPOGRAPHICAL MAPPING AND THE PREPARATION OF INTEGRATED STRATEGIC URBAN DEVELOPMENT PLAN FOR NAKURU TOWN (2014-2034)

NAKURU TOWN

INTEGRATED STRATEGIC URBAN DEVELOPMENT PLAN

DRAFT FINAL PLAN REPORT

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FOREWORD

Kenya has been grappling with urban development challenges over the last five decades. This is partly attributed to the fact that planning has failed to keep pace with growth and development of towns. More often than not, planning has been seen to come in as a remedy to problems encountered in urban areas rather than a proactive process which should help to guide developments, as the case should be. As a result, issues such as overcrowding, narrow roads, incessant traffic jams, inadequate public amenities and conflicting land uses are characteristic of most our urban areas, usually causing a state of disorder.

To a great extent, urban issues such as mushrooming of developments, urban sprawl, inadequate infrastructure and service provision and the challenge of informal settlements are partly due to poor management of urban development, ineffective planning and inefficient implementation systems. Such scenarios have serious socio-economic implications and therefore, appropriate measures must be put in place to avert such negative impacts of urbanization so as to retain our urban centres as the prime movers of socio-economic development in our country.

The Kenya Vision 2030 development blueprint recognizes that there cannot be sustainable development without well planned urban centres. It is anticipated that by the year 2030, given the current rate of urbanization i.e. 6%, over half of the country's population will be residents in urban areas. This will be amounted to by such factors as rural- urban migration, natural population increase and reclassification of previously rural areas as urban. The Ministry of Lands, Housing and Urban Development has therefore prioritized the planning of all urban centres as a basis for achieving effective urbanization.

Given this scenario, the Ministry of Lands, Physical Planning and Housing embarked on a participatory process to formulate an ***"Integrated Strategic Urban Development Plan for Nakuru Town 2015-2035"*** .which also aims to address the shortcomings of the 2001 Nakuru Town Structure plan including lack of detailed land use planning and inefficient Implementation systems in order to avert development challenges which have been affecting the town.

It is therefore gratifying to inform that the plan, which is to provide a development blue print to guide the spatial growth and transform Nakuru town into a well-planned cosmopolitan, clean and environmentally friendly city has been completed. Considering that the entire planning process was participatory, pursuant to legal provisions and that the proposed planning interventions were approved by the various stakeholders, it is hoped that it its implementation will be within the provided timeline. It is further expected that the ISUDP will contribute to sustainable development and positive social-economic transformation of Nakuru Town and its environs. The Plan will also enhance the competitiveness of Nakuru as a centre of choice for investment.

In this regard, I invite all of you to assist in ensuring that the plan is implemented to make a positive difference in the town.

Signed: ……

COUNTY EXECUTIVE MEMBER

LANDS, PHYSICAL PLANNING AND HOUSING

ACKNOWLEDGEMENT

The preparation of the Integrated Strategic Urban Development Plan for Nakuru could not have come at a better time in the history of the development of the centre. The area is rapidly urbanizing and has in the recent past emerged as the leading commercial centre within the area of jurisdiction of the Nakuru County. The preparation of this plan therefore fulfils the desire of the County to have orderly urban development in Nakuru.

It is on this consideration that the County spearheaded the planning process that has culminated in the finalization of the plan. The planning process has been participatory and had the involvement of various stakeholders including national government departments, parastatals, NGOs and County government officials, businessmen, land owners and the general public. Many consultative sessions were held during the process and valuable inputs from the stakeholders obtained.

The County appreciates the facilitative role played by the Ministry of Land, Housing and Urban Development in the planning process. It also recognizes the vital role played by Real Plan Consultants who provided the technical expertise. Their expertise in handling the process created a conducive environment that enabled active participation by the stakeholders.

I also appreciate the active participation and contributions of all the stakeholders and look forward to similar involvement in the implementation process.

Finally I take this opportunity to reiterate the commitment the County Assembly to the implementation of the plan. The County government intend to oversee implementation of the plan and hereby ask the ministry to facilitate final approval for public use. I am confident that implementation of the plan will address development challenges facing Nakuru and contribute to the overall achievement of the Kenya Vision 2030.

I therefore look forward to the finalization of the approval process.

Signed……

DIRECTOR OF PHYSICAL PLANNING

NAKURU COUNTY

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ABBREVIATIONS AND ACRONYMS

3D:	3-Dimension
A.s.l	above Sea Level
AFD:	Agence' Française de Development
BCR:	Business Cum Residential
CBD:	Central Business District
CBO:	Community Based Organization
CDF:	Constituency Development Fund
CFAs:	Community Forest Associations
CIP:	Capital Investment Plan
ECD:	Early Childhood Development
EIA:	Environmental Impact Assessment
EMP:	Environmental Management Plan
ESA:	Environmental Significant Area
GoK:	Government of Kenya
ICT:	Information and Communication Technology
IDA:	International Development Association
ISUDP:	Integrated strategic urban development plan
KeNHA:	Kenya National Highway Authority
KERRA:	Kenya Rural Roads Authority
KFS:	Kenya Forest Service
KISIP:	Kenya Informal Settlements Improvement Project
KMP:	Kenya Municipal Programme
KNBS:	Kenya National Bureau of Statistics
KPLC:	Kenya Power and Lighting Company
KURA:	Kenya Urban Roads Authority
KWS:	Kenya Wildlife Service
LOS:	Level of Service
LPG:	Liquefied petroleum gas
MoLHUD:	Ministry of Lands Housing and Urban Development
N/A:	Not Applicable
NARUWASCO:	Nakuru Rural Water and Sanitation Company
NAWASCO:	Nakuru Water and Sewerage Company
NEMA:	National Environment Management Authority
NGO:	Non-Governmental Organization
NMT:	Non-Motorized Transport
NTSA:	National Transport and Safety Authority
PPP:	Public Private Partnership
PWD:	People with Disability
REA:	Rural Electrification Authority
SGR:	Standard Gauge Railway
SIDA:	Swedish International Development Agency
SP:	Structure Plan
SWOT:	Strengths Weaknesses Opportunities Threats
WARMA:	Water Resources Management Authority
WRUA:	Water Resource Users Association
WSTF:	Water Services Trust Fund

EXECUTIVE SUMMARY

The Integrated Strategic Urban Development Plan (2014 -2034) for Nakuru Town is a long term spatial development framework for the town, intended to guide the growth of the town for a period of 20 years up to the year 2034. The plan will also serve as the basis for development control. The plan is part of the Kenya Municipal Programme whose overall objective is to strengthen local governance and improve urban service delivery.Its preparation was participatory and was within the context of the Kenya Vision 2030. The strategic planning process involved an assessment of the development constraints, potentials and an envisioning process. The process was executed by the Government of Kenya (GoK) through the Ministry of Lands Housing and Urban Development with assistance from International Development Association (IDA), Swedish International Development Agency (SIDA), Agence Française de Development (AFD) and the Italian Government.

The mandate to prepare this plan is derived from various legal documents including the Constitution of Kenya (2010), the Physical Planning Act 1996 (Cap 286), the Urban Areas and Cities Act (No. 13 of 2011), the County Governments Act (2012) among other legal statutes.

This ISUDP consists of the written statements and graphical representations of the existing and proposed spatial and land use structure. The planning document has been organized into 11 chapters. Chapter one gives an introduction including the background of the planning area and the commissioning of the project. It further describes the plan preparation process. Chapter three analyses the policy, legal and administrative framework within which the plan has been prepared.

Part II of the document entails the plan proposals organized in chapters 4, 5, 6, 7, 8 and 9. Chapter four, five, six and nine presents the structure plan, detailed land use plan, local area plans and sector plans respectively, while chapters seven and eight outline the proposed planning and land use policies and development application processes for Nakuru Town. Chapter ten handles the Capital Investment Plan and plan implementation.

Nakuru Town has grown rapidly due to its importance as a rich agricultural town, as an administrative headquarter as a renowned tourism destination and as a transit town. The town also offers significant opportunity in commerce and industry. The town however experiences the following planning challenges which underscore the need to prepare an ISUDP for the town.

- Lack of an elaborate development control framework
- Inadequate social facilities
- Inadequate provision of water and sewerage systems
- Congestion especially in the Central Business District
- Congestion on the roads within the Central Business District
- Lack of alternative land for relocation of the dumpsite.

This ISUDP addresses the above challenges by detailing strategies for tapping available resources. It seeks to attain the agreed vision for the town which is; ‘’***to be a well-planned cosmopolitan, clean and environmentally friendly city***’’**.** This vision was agreed upon by

stakeholders unanimously during a visioning workshop and articulates the key aspirations of the town's population including;

- To be a sustainably planned town
- To be a clean and healthy town
- To be an industrialized, clean and economically empowered town

This ISUDP has three main objectives including:

- To define a vision for future growth and development over the next 20 years;
- To provide an overall integrated physical framework for urban growth;
- To provide a basis for coordinated programming of projects and budget thereby serving as a downstream management tool.

Implementation of the ISUDP is expected to provide solutions to most of the concerns critical to development of Nakuru Town. It is therefore expected that the plan proposals will be a significant step towards achieving the development vision of Nakuru. It is expected that all stakeholders and actors including local residents, business entrepreneurs, civil society organizations, and the local, county and national administration will play their respective roles and provide the necessary support to ensure implementation of the plan proposals.

PART I: BACKGROUND

CHAPTER ONE

INTRODUCTION

This plan is a spatial development framework that is to guide the town's growth for the next 20 years up to the year 2034. It addresses various development concerns that have been afflicting the town's growth in the recent decades. The planning process from validation of the identified planning challenges, data collection and analysis and formulation of proposals was participatory. It involved stakeholders including local residents, business entrepreneurs, civil society organizations, county and local administration. It also details the proposed strategies and policies intended to address concerns identified to achieve the overall set vision.

1.1 Kenya Municipal Programme

The project is part of KMP which is being implemented by the Government of Kenya (GoK) with the assistance from International Development Association (IDA), Swedish International Development Agency (SIDA), Agence Francaise de Development (AFD) and Italian Government. Its overall objective is to strengthen local governance and improve urban service delivery. The programme has four components as listed below:

I. Institutional restructuring and empowering local governments;
II. Participatory strategic planning for urban development;
III. Investment in infrastructure and service delivery that will facilitate realization of the Kenya vision 2030 for national transformation;
IV. Programme management, monitoring and evaluation system.

Nakuru ISUDP falls under component II. There are 12 other towns with similar projects namely Mombasa, Naivasha, Nyeri, Embu, Machakos, Thika, Malindi, Kitui, Kakamega, Kericho and Eldoret. Nakuru, Naivasha and Nyeri constitute cluster IV.

1.2 Project objectives

The ISUDP has three main objectives as stated below:

- To define a vision for future growth and development over the next 20 years;
- To provide an overall integrated physical framework for urban growth;
- To provide a basis for coordinated programming of projects and budget thereby serving as a downstream management tool.

The specific objectives are to:

- Produce accurate up-to-date digital topographic maps;
- Prepare digital cadastral layers in the same system as the digital topo-maps;
- Conduct participatory planning exercises in the planning area to identify citizens' priorities;
- Prepare short, medium term plans to guide urban development, including action area plans, subject plans, advisory or zoning plans, regulations and other reference materials;
- Prepare capital investment plans (CIP) for the planning area;

- Prepare a Strategic Structure Plan showing current and proposed land use and infrastructure (such as transport, water, drainage, power, etc.), housing settlements and environmental assets (10–20 years);
- Provide hands-on training to key staff of the planning department on plan preparation and implementation and
- Prepare a monitoring and evaluation strategy to assist the planning department in reviewing and updating the plan in line with the ever-changing trends of the County.

1.3 Location

Nakuru town is located 160 km North West of Nairobi City along Nairobi - Eldoret Highway in Nakuru County. It lies on the floor of the Rift Valley between latitudes 0˚15' - 0˚31'S and longitudes 36˚00' - 36˚12'E at an average elevation of 1850 metres above sea level. It is centrally located within Nakuru County as shown in figure 1 overleaf.

1.4 Planning Area

Nakuru is Kenya's fourth largest town after Nairobi, Mombasa and Kisumu. The planning area covers 613 Km² accounting for 8% of the total area of Nakuru County. It is also the headquarters of Nakuru County. Other key towns in the County include Naivasha, Gilgil, Molo, Subukia, Elburgon and Njoro.

Following the dissolution of the former municipalities, the town's boundaries are not yet gazetted. The delineation of the planning area was undertaken through the involvement of key actors including the Client, the County Government Officials and with participation of stakeholders. New urban area boundaries are yet to be gazetted as required by the Urban Areas and Cities Act. It is expected that the planning area will be a useful guide in determining the future boundaries of the town which is likely to be designated either as a City or a Municipality.

The planning area covers the entire former Municipality and adjacent peri-urban areas which were within the defunct Nakuru County Council. It includes Nakuru west and Nakuru East sub counties and parts of Bahati, Rongai and Gilgil sub counties. As shown in figure 2 on page 5.

Key features in the planning area include the Menengai Crater located north, Bahati Escarpment to the North East and Lake Nakuru National Park located south of the planning area. It lies on the floor of the Rift Valley and is centrally located within Nakuru County. Figure 1 shows the spatial context of the planning area both nationally and within Nakuru County;

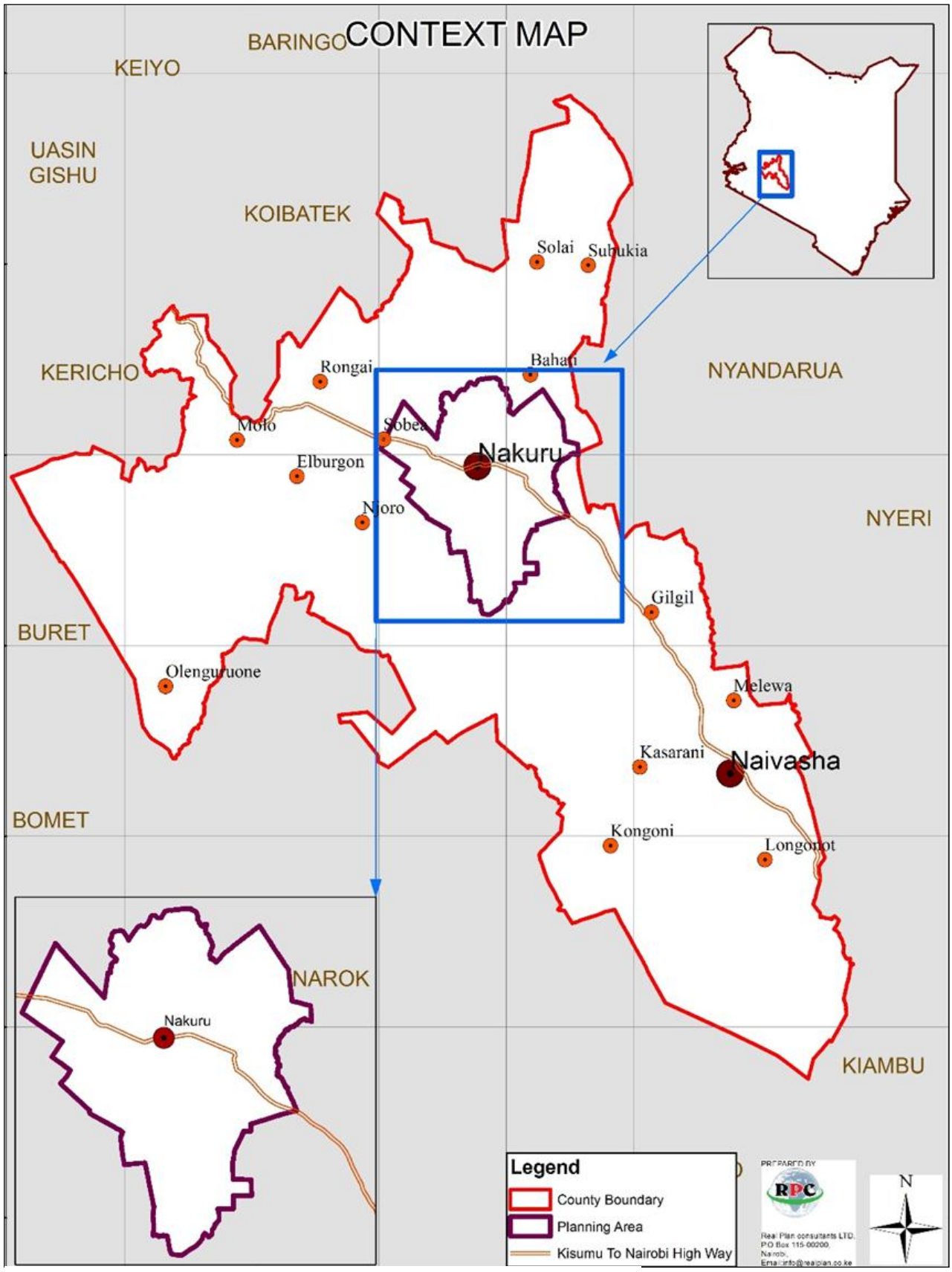


Figure 1: Planning Area Context Map

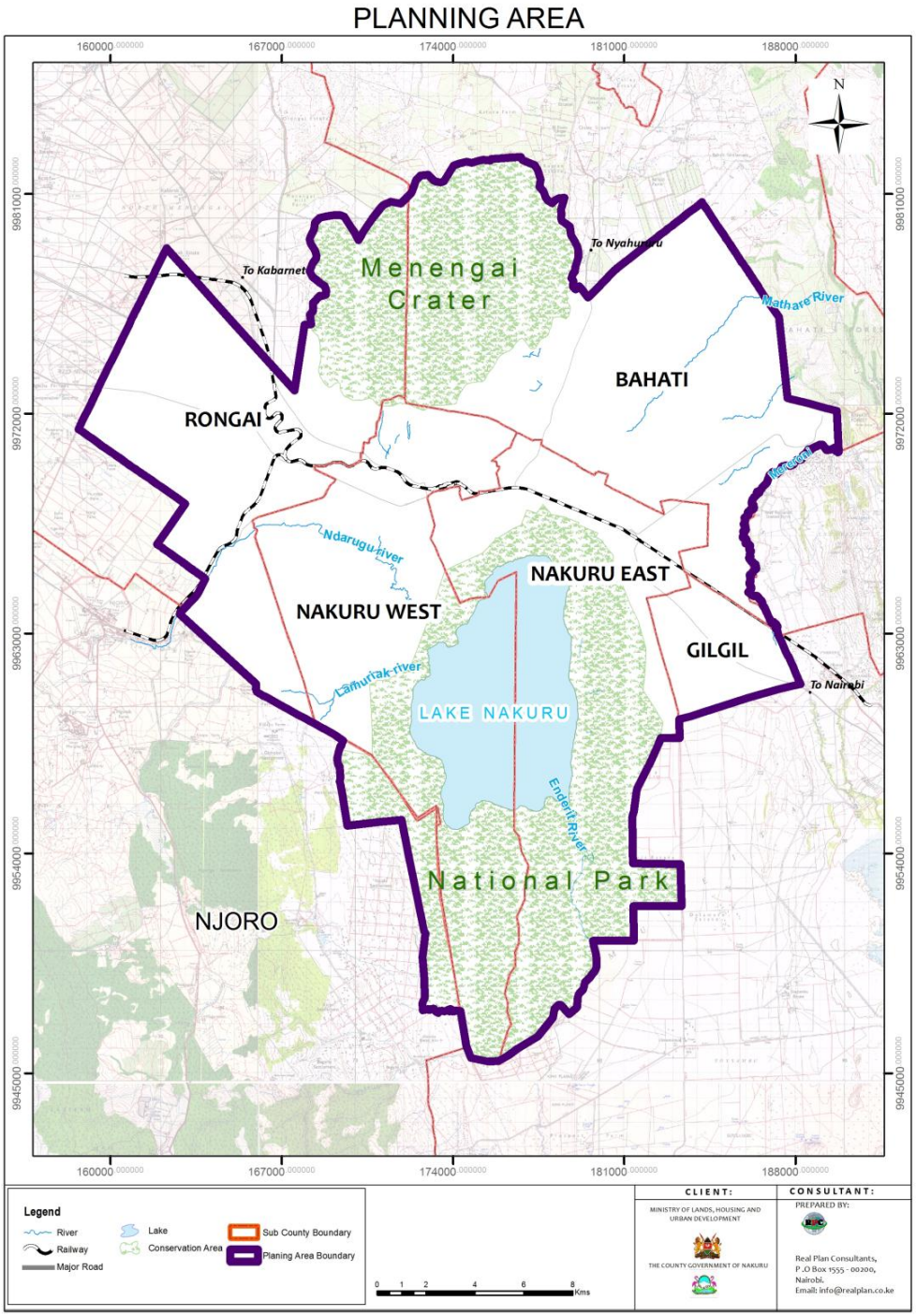


Figure 2: Sub County Delineation

1.5 Historical Development

The town's evolution dates back to over 115 years ago as summarised below;

Early 1900s

Nakuru town was established in early 1900s as a railway outpost following the construction of the Kenya-Uganda railway. The railway station established was sandwiched between

Lake Nakuru and the Menengai Crater and areas adjacent to the new settlement were areas used as grazing grounds by the native Maasai.

Colonial period (1910-1960)

Within this period, the railway attracted European settlement within the nearby areas where they acquired large farms. The town then grew as a centre for the Europeans, the Asian traders and as a railway station. It experienced significant growth during this period largely because of highly productive farms in its hinterland. Agricultural processing industries were established within the town to process farm produce. Other industries were also established to supply agricultural machinery.

The town was also an important seat of government as the headquarters of both Nakuru District and the Rift Valley Province.

All the above led to increased demand for housing for the railways workers, the government employees, the traders and industrial workers. However, there were restrictions on the local African population residence in the town. Housing and settlements were segregated with the Europeans occupying the northern parts of the town, the Asians within the areas adjacent to the south of the Railway station while the Africans occupied further southern areas within the Bondeni-Kivumbini area.

1960s & 1970s

During this time, the town opened up for settlement of the native population following the attainment of independence. This tremendously increased demand for housing and other services prompting establishment of several municipal and government housing initiatives. Some tenants purchased housing schemes in collaboration with the national Housing Corporation leading to establishment of several staff-housing schemes by industries including the Pyrethrum Board, Kenya Railways, the Ministry of Works, Survey of Kenya and Kenya Famers Association.

As a seat of many government offices, the town's growth fortunes continued to increase and most significant is that Nakuru hosted a powerful seat of State House perhaps only rivalled by Nairobi the Capital City. The town's boundary was extended in 1972 to coincide with the presently built up core.

This period also marked the purchase of many European farms by African land buying Co-operatives and individuals.

1980s and 1990s

During this period, the town experienced steady expansion of population due to among other factors, the subdivision of some of the European farms in the hinterland and adjacent to the town. There was high demand for social services and facilities which majority of the subdivisions did not provide for adequately. This resulted into dwindling provision of public services and facilities including roads, schools, health facilities and green areas. There was uncontrolled subdivision of the cooperative land farms. The urban area was now expanding beyond the municipal boundaries into the then Nakuru Town Council areas which had relatively weaker development control mechanisms.

Post 2000

Post 2000 period experienced further increased rural-urban migration. There was increased land sub -divisions prompted by the emergence of a very active land market. There was also

sporadic political and land related violence in the town's hinterlands which pushed many people to settle within the town as opposed to the rural areas which were felt to be less secure. The latest and greatest such surge of population was witnessed in 2007 which significantly impacted on the growth dynamics of the town.

Further growth was fuelled by the establishment of the County headquarters in the town.

1.6 Planning History

Planning of Nakuru town began during the colonial period. Some of the major planning milestones are discussed below.

The Bellenden Plan

In 1929 the first town plan followed a grid pattern focused around the railway as the main structuring element. The settlement was cut into two by the railway line. The Bellenden Plan laid early planning of the town area that had been set apart for urban development. The plan also laid down an expansion strategy guided by functional zoning principles featuring an industrial quarter to the west of the station anchored along the main line but served by several sidings.

North of the railway line contained the railway depots, European facilities and housing while the immediate southern section was the administrative and commercial area had residential areas for the Asian population. The African residential areas were planned south west of the railway station clustered around Bondeni area. Majengo area, sandwiched between Bondeni and the railway station, was for the Swahili population. The street pattern was simple and efficient with streets in an East-West direction called 'Avenues' and streets with a North-South orientation called 'Roads'.

African settlement in the town was discouraged and restricted to industry specific housing schemes. The plan also made provisions for the suitable location for the hospital, cemetery, and other facilities across the railway divide.

While the plan created specific plots for various types of development, it also created land banks for various types of land use such as industrial, commercial, residential and public facilities.

The effects of this plan are to date still noticeable. Design and growth of the town's urban core is still guided by this plan. The plan also established key social facilities while providing a well-planned commercial and industrial core. The east-west and north side growth influence of the plan is still quite evident.

Part Development Plans

Part Development Plans played a crucial role in influencing the growth of the town. Preparation of such plans was common in the late 70s, 80s and 90s. The plans were specifically meant for infill planning particularly for alienation of land for specific public and private sector projects. The plans were prepared by the then Ministry of lands in consultation with the then local council in liaison with other relevant government agencies.

The PDPs were initially meant to create developable units when on demand within the large blocks that had been created by the Bellenden Plan. Over time, there was abuse of the preparation of the plans some of which significantly altered the earlier envisioned original designs and functions.

Many complaints have been raised with regard to such plans some of which are still under consideration by various arms of government. Preparation of PDPs is no longer popular and especially with the lack of uncommitted public land.

Nakuru Strategic Structure Plan, 2001

The preparation of the plan was part of the Localizing Agenda 21 which among other objectives, sought to address challenges facing urban development. The structure plan aimed at empowering local participation and enhancing local capacities in planning and development.

The plan was prepared under the then Municipal Council of Nakuru and therefore mainly covered the then municipal boundary. It contained broad land use zones and identified some of the strategic interventions including concepts that were required for implementation to achieve sustainable development. Greening, need for mobilization of resources amid dwindling public coffers, prioritization of actions and the adoption of the strategic approach to planning were emphasized. The plan identified various Action plans there were to be acted on as part of the implementation of the plan. The roles of various actors were outlined.

From the study, the plan was not successful as anticipated. This is largely attributed to a number of factors. Foremost, the Strategic Structure Plan did not provide detailed plans with clear development guidelines and had therefore a weak implementation framework particular regarding private land.

Lack of a follow up towards the implementation of the actions plans compromised the success of the plan. Preparations of detailed plans for instance were expected to follow soon after but this never happened.

Coordination of the implementation of the plan was weak since it covered areas falling within two different entities, i.e. the then Municipal Council and the County Council. The two had different standards and approaches particularly in development control. The two councils had also no established linkages for coordinating development.

In addition, lack of capacity among the two entities also affected the implementation of the plan. They lacked adequate staff particularly in planning, enforcement and related fields. The planning departments proposed in the plan were never established. Planning staff were still domiciled at the Ministry of Lands. Few staff that had been deployed to the municipality during the plan preparation were recalled or deployed elsewhere.

Kagoto / Kiamaina Development Plan

This plan, departmental reference R711/91/1 was prepared in 1991. Its main objective was to guide development by providing for proposed spatial distribution of physical attributes and land uses within the area set aside for commercial developments for the Engashura farm. The plan was to guide land use and the disposition of the plots to members of the farm. The area is located along the Solai road just outside the old municipal boundary.

The plan proposals included a residential zone for high-density development, an industrial zone for light industry, hides and skins section and a slaughter house, a public purpose land for Churches, an open air market and commercial plots at the Centre's core

The plan has been implemented by the farm members although the land uses have not been strictly observed. The center is located within the peri-urban area often referred to as

Mchanganyiko were developments are generally mixed. Development regulations were not provided in the plan further aggravating the mix.

Kabatini Development Plan

The plan, reference no R/390/76/1 was prepared in 1978 and covered a small designated trading centre within a larger farm. The plan was approved in 1979 It guided development by providing for proposed spatial distribution of physical attributes and land uses in the area. This included a residential zone, commercial plots, an industrial zone for light industry, a slaughter house and a hides and skins banda, a primary school, a playing field and an open space, a cemetery and a dispensary, an open air market , a refuse disposal point, a bus park and a lorry park

However, it did not indicate the development regulations for the commercial and residential areas. It also never provided for future expansions and no land bank was identified.

Kiamunyi Development Plan

The plan reference No.R728/79/1 was prepared in 1979. The plan was approved in 1985 by the commissioner of Lands. It was intended to guide development in the Kiamunyi trading centre by proposing spatial distribution of land uses.

The plan proposed areas for residential use, an industrial use area for hides and skins banda and a slaughter house. Others are a nursery and a primary school. The proposed Nursery and primary school is now Mercy Njeri Primary school. A recreational green belt area, a cemetery, church, business – cum residential development areas, a market, water reservoir and refusal disposal points, a bus and Lorry Park were also provided for.

The plan similarly did not provide development standards for various land use zones hence poses land use conflicts in the areas.

Barut Development Plan

The plan was prepared in 1987 and was intended to guide development in the Barut trading Centre. It earmarked areas various land uses including residential, slaughter slab, hides, skin area, light industrial zone, nursery school, recreational planted area, cemetery, church, dispensary and a community center.

Others are an open air market, refuse disposal point, water tank, car park and a deferred land for future use. The plan was not approved and also did not provide development standards for various land use zones.

Githioro Development Plan

The plan reference R960/83/1was prepared in 1983. The plan focused on the land earmarked for Githioro trading centre. It was to guide development by proposing spatial distribution of physical attributes and land uses.

It proposed a total of 8 zones as follows.

1. Residential zone for high and low-density residential areas
2. Industrial zone for heavy and light industrial zones and a slaughter house.
3. Educational zone for nursery, primary and secondary schools.
4. Recreational as an open space.
5. Public purposes such as church, community centre, chief's office, a cemetery, a dispensary, a nursing home and space for future expansion of the land use.
6. Business cum residential development for plots and a market.
7. A water tank and a

8. A bus park

The plan did not specific regulations for various land use zones though guided the allocation of land for various uses.

Subdivision Plans

Subdivision remains the most common form of plans affecting private land in Nakuru town. This is particularly in the former Nakuru municipality and in the peri-urban areas. Most of the land adjacent to the municipality was initially owned by land buying companies and cooperatives which subdivided their land and allocated to their members.

The preparation of plans for large scale subdivision schemes significantly contributed to rising population density in the town especially in informal settlements including Kiamunyi, Kiamunyeki, Mwariki East, Mwariki West, Naka, Wanyororo, Barut, Ronda and Engashura. Some of the subdivisions created thousands of subplots such as the Engashura, Kiamunyeki and Kiamunyi farms. The plans were prepared by the land buying companies through private planners and implemented by private surveyors.

For instance, in April 2012, the twenty (20) sub-division applications which were submitted to the Town Planning Committee, of the former Municipal Council of Nakuru, clearly indicate the high levels of land subdivision.

Some of the subdivisions have in the past not prepared and or approved procedurally. This is common especially in freehold land where land subdivision procedures and guidelines are often note adhered to. This creates a constraint to proper planning and development management. There is need to adhere to the set guidelines and procedures so as to effectively manage the subdivision of land.

Change of Use & Extensions of Use

The conversion of use of land from one use to another has also significantly impacted on planning in Nakuru. This is common in both the old town and in the peri-urban areas.

Within the old town, most change of use are from single dwelling to multiple residential use. This is evident from the emergence of high rise developments in Naka, freehold, Mwariki, Langa Langa and sections of Milimani estates. Others are from residential to commercial use such as the conversion of former residences to hotels and business premises common in freehold, Langa Langa, Milimani and other parts of the town.

Whereas many of the applications are approved, many more are also not approved. Many of the pilots within the old town are leasehold and many developers apply to the county government for approval given the conditions spelt out in the lease.

In the peri-urban areas where freehold predominates, many such changes are not submitted to the county government for approval. Most land emanating from the subdivision of large farms in the peri-urban areas is registered as agricultural freehold land. This is unlike the earlier farms within the old municipality which were subdivided and subjected to change of use such as Naka, Rhonda, and Mwariki West where beneficiaries hold private leaseholds.

There is need to adhere to the set guidelines especially in the freehold areas where most of the urbanization is taking place. Updated development regulations and guidelines are

required to provide appropriate interventions and guide the County officials when considering the development control applications.

From the foregoing state of planning, it is therefore apparent that

1. Town lacks an up to date comprehensive plan to guide physical development
2. Spatial Development Planning has in the past been piecemeal targeting specific parcels or areas of land
3. Subdivisions, change of use and extension of use applications need to be controlled
4. Appropriate conditions of approval need to be imposed

1.7 Methodology

The methods employed in plan preparation took into account the guidelines provided in various statutes including the Constitution of Kenya 2010 (Kenya supreme law), Physical Planning Act 1996, the County Governments Act 2011 and the Urban Areas and Cities Act 2012. This was necessary in order to ensure that the processes and the final products are legally compliant.

The methods used were participatory and elaborately incorporated the wishes and aspirations of the stakeholders. It was an all-inclusive process that saw active and well-structured participation by the consultants and other stakeholders including County Government of Nakuru and GoK agencies, NGOs, CBOs, international agencies and local communities. The planning methodology was also in line with the existing regulatory framework. The methodology is summarized in figure 3 below;

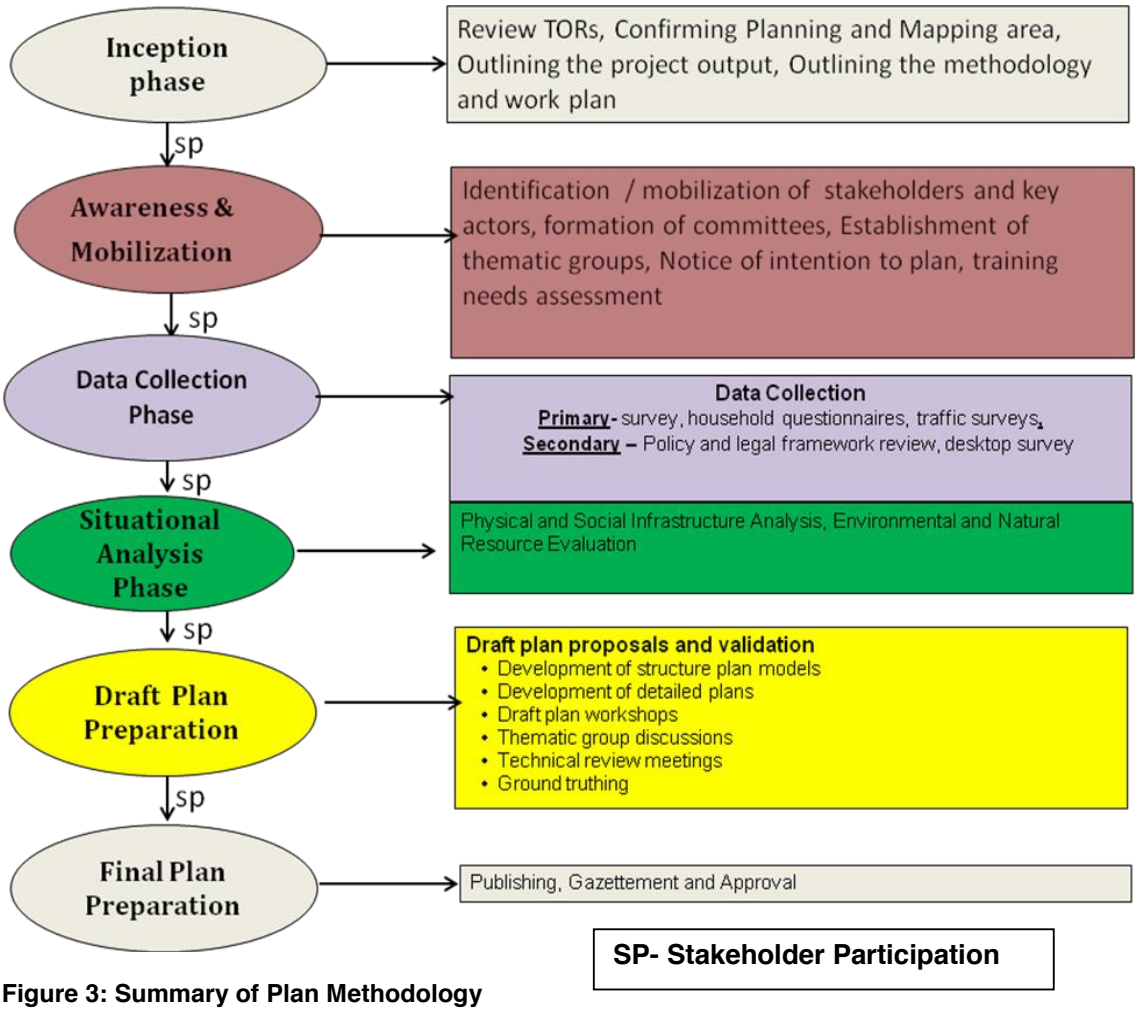


Figure 3: Summary of Plan Methodology

The process had five major phases namely inception phase, awareness and mobilization, data collection and situational analysis, preparation of draft plans and the final plan preparation. All the processes were sequentially adhered to and all were validated through technical and stakeholder workshops.

Inception Phase

This phase basically involved project commissioning. Preliminary discussions were held between the project consultants and key stakeholders including the Ministry of Lands Housing and Urban Development, the County Physical Planning Offices, the County Surveyors and other officials of both the National and County government. The aim was to determine the boundary and extent of the planning and mapping area, defining the methodology and work plan. The Terms of Reference were also defined to regulate the project and its outputs.

On 9th April 2014, a commencement meeting was held for purposes of notifying key players and stakeholders of the intention to prepare the ISUDP and familiarize with steps and requirements. Shortly after, a County Introductory Meeting was convened to introduce the planning team to the county officers with whom they would partner for the purposes of preparing the ISUDP.

Soon after, introductory visits where the consultants were introduced to the county officials by the clients were held prior to a reconnaissance visit by the consultants to familiarize with the project area.

Awareness and Mobilization Phase

Pursuant to the Constitution of Kenya and Urban Areas and Cities Act, 2012, public participation was a key component of this project. In this regard, stakeholders to be engaged in this project were identified through consultation among various actors including project managers at the Ministry of Lands, Housing and Urban Development, County Government of Nakuru, and Real Plan Consultants. Also entailed in this phase was the formation of committees and establishment of thematic groups. The general public was also informed of the intention to plan through a public notice.

An awareness and mobilization workshop was held on 29th January 2015 to champion the project following the resolution of a hitch in the plan preparation that had threatened to stall the project since October 2014.

Data Collection Phase

Prior to the commencement of data collection, public notices were issued on local daily newspapers on 30th July 2014. Official data collection began in August 2014, soon after which the situational analysis report preparation began.

The data used for the preparation of this ISUDP was obtained from both primary and secondary sources. Primary data was obtained through field surveys and visits. Methods involved; mapping and remote sensing of the entire planning area, making field observations, photography, administration of household and enterprise questionnaires and carrying out traffic surveys. The consultants also held Focus Group Discussions and conducted key informant interviews for purposes of acquiring first hand information.

Secondary data collection was achieved through desktop survey. Secondary sources reviewed included various policy and legal documents, previous plans and maps for Nakuru town among other credible and authoritative sources.

Following data collection, an assessment of physical and social infrastructure was undertaken alongside the population demand. This was in an effort to determine the needs of the population. Also, an environmental and natural resource evaluation was undertaken. This was aided through various computer programs such as ArcGis for spatial analysis.

The findings of the situational analysis were validated during a workshop held on 29th January 2015.

Draft Plan Preparation

The existing situation was a key consideration in this phase. Preparation of the draft plan involved formulation of structure plan models, detailed plans; local area plans and sector plans.

The draft plan proposals report was then compiled and was reviewed during a stakeholders' workshop held on 16th June 2015 at the Hotel Waterbuck in Nakuru. The stakeholders also had a chance to influence amends during thematic group discussions held on the same date between the consultants and the various stakeholder groups with interest in specific thematic sectors. A ground truthing visit to the planning area was held after a series of technical review meetings. These meetings were intended to assess the progress of the project.

Final Plan Preparation

Final plan preparation involved a review of the contents of the draft plan report. This review was based on stakeholder comments obtained during the draft plan workshop. The final plan proposals were validated during a validation workshop held in Nakuru on 24th November 2015. The final plan was then submitted to the facilitators and the client (County Government of Nakuru) for vetting and approval.

1.8 Public Participation

Various methods were used to enhance public participation as follows;

1.8.1 Public Notices

To sensitize and attract the involvement of the greater public, notices were published in daily newspapers. This was in the Standard and Daily Nation dated 30th July, 2015. The notices were also simultaneously placed at strategic notice boards within the local area

1.8.2 Stakeholders

Actors from different agencies were involved as shown in the table below. As evident, actors were drawn from the National Government, the County Government, opinion leaders, Civil society including NGOs, Churches, professional groups, businessmen, farmers, land owners, resident associations and the general public. The actors were identified in collaboration between the County Government, the ministry of Lands and Urban Development and the Consultants.

Workshops

Four stakeholder workshops were held and participation was as shown in the table below:

Date	Name of Workshop	No. of participants	Venue
1. 29th January 2015	Awareness and mobilization workshop	128	Hotel Waterbuck Nakuru
2. 29th January 2015	Situation Analysis Validation/Visioning Workshop	128	Hotel Waterbuck Nakuru
3. 16th June 2015	Draft Plan Proposal workshop	123	Hotel Waterbuck Nakuru
4. 24th November 2015	Final Plan workshop	129	Hotel Waterbuck Nakuru

Thematic Group Discussions

The discussions were held at two levels. These are the situational analysis and draft plan proposal stages as summarised in the below table:

Date	Thematic Group	Venue	no. of participants
Situational analysis thematic discussions			
18th March 2015	Land use	Nuru Palace Hotel, Nakuru	10
18th March 2015	Environment	Nuru Palace Hotel, Nakuru	13
19th March 2015	Economic	Nuru Palace Hotel, Nakuru	11
19th March 2015	Infrastructure and Services	Nuru Palace Hotel, Nakuru	12
20th of March 2015	Focus Group Discussion (Nakuru Local Urban Forum)	11	
20th of March 2015	Focus group Discussion (Settlement Executive Committee)	11	
Draft plan proposal thematic group discussions			

Monthly Technical Meetings

A number of monthly technical meetings were held for both Nakuru and Naivasha town. The objective of the technical meetings is to assess the stakeholders' progress in the project.

Date	Venue	No of participants
23rd January 2015	Naivasha Sub County Hall	17
20th February 2015	Chief Officer's Office, Ardhi House, Nakuru	17
13th March 2015	Chief Officer's Office, Ardhi House, Nakuru	14
17th April 2015	Chief Officer's Office, Ardhi House, Nakuru	12
18th November 2015	Governor's Boardroom, Nakuru County HQ.	19

Project Review Meetings

Apart from the technical meeting there were three other technical reviews organized by the client. They include the inception report validation meeting held on 29th May 2015 at Transcom House, Nairobi, the situational and interim report review meeting held at UN Habitat offices held on 7th and 8th April 2015 and Draft plan proposals review held at Voi Safari Lodge on 26th August 2015. The consultants presented their work and received several comments from the client which were to make the final output better.

1.9 Conclusion

Nakuru town has continued to grow both spatially and in terms of functionality. Rapid population growth has also been witnessed in the town. This trend is expected to continue the town being one of the principal towns in Kenya. Considering this, there is need to manage this growth hence the justification for this ISUDP.

Also emerging is lack of a clear boundary for Nakuru town since the dissolution of the former municipalities. The town's boundary proposed by this ISUDP is a useful guide for the gazettement of new boundaries for the town. The methodology used in preparing this ISUDP is entirely legal and participatory in nature

CHAPTER TWO

POLICY LEGAL AND ADMINISTRATIVE FRAMEWORK

The mandate to prepare the ISUDP for Nakuru town derives from various statutory and policy provisions which gave the context within which the entire planning exercise was conducted. Such is the subject matter of this chapter. Further, this chapter reviews the existing administrative structure and the roles of key institutions in charge of managing development in Nakuru town.

2.1 Policy Framework

Kenya Vision 2030

The Kenya Vision 2030 has in the recent past been Kenya development blue print which seeks to make the country a middle income economy by 2030. The Vision seeks to provide for improvement of all sectors of the economy through the recognition and the provision of resources for the three critical support pillars namely the social, the economic and the Political pillar.

The vision recognizes that urban development is critical to achieving improved standards of living leading to the attainment of middle income status. It also underscores the importance of urban planning as a prerequisite to sustainable urban development. The need to prioritize planning of principal towns is a major objective of the vision. Indeed, the KMP programme is in part fulfilment of the intensions of the Vision 2030.

National Land Policy (Sessional Paper No. 3 of 2009)

The land policy proposes development control as a tool of ensuring equitable and sustainable use of land. The preparation of ISUDP will give guidelines, which the relevant agencies can use. It recognizes land use planning as an important tool in land use management, which can address the current challenges and create new opportunities for sustainable human settlements.

National Housing Policy

The policy aims at promoting planning of human settlements, which includes re-planning, and re-development of areas with inadequate infrastructure and services. Nakuru ISUDP also takes into account those aspirations especially in the re-planning of the neighbourhoods and informal settlements by ensuring provision of basic services.

Integrated National Transport Policy

The Policy identifies challenges besetting the transport sector in Kenya as is evidenced in Nakuru Town. In relation to this policy vision, the project shall seek to incorporate it and the county's vision when preparing the transportation strategy for Nakuru Town.

Draft National Urban Development Policy

The goal of this Policy is to ensure orderly, competitive, and sustainable urban development that enhances physical, social, and local economic development of the urban areas.

Secondary towns in Kenya, continue to absorb large numbers of people who migrate from the areas. The Nakuru Town Strategic Urban Development Plan will cater for a population greater than what is expected from natural growth.

2.2 Legal Framework

The legal backing of this ISUDP derives from the constitution of Kenya 2010 which is the supreme law besides other statutes aligned to it. The legal provisions are hereby reviewed;

The Constitution of Kenya, 2010

Article 60(1) of the Constitution gives the guidelines on how land is to be used equitably, efficiently, productively and sustainably. Article 61(2) of the Constitution classifies land as either public, private or community land, which forms the basis of land management.

Article 67 in the same chapter establishes the National Land Commission. The commission is mandated to, among other functions, monitor and have oversight responsibilities over land use planning throughout the Country.

The Sixth Schedule of the Constitution of Kenya provides a mechanism for devolution of functions from National Government to County Governments. This ensures there is effective preparation and implementation of plans which will act as a useful tool to guide the urban development in Nakuru town.

Article 42 provides for the right to a clean and healthy environment. This provides for a basis to promote sound conservation and protection of ecologically fragile areas such as Lake Nakuru National Park, Menengai Forest and crater, Bahati and Ndundori forests among others.

Physical Planning Act 1996, Cap 286

Enacted in 1996, the Physical Planning Act regulates physical planning activities in Kenya. It empowers the former Local Authorities (now County Governments) to regulate development within their areas of Jurisdiction. Further, it empowers the Director of Physical Planning to prepare various types of Physical Development plans. The Director performs functions such as the formulation of National, Regional and Local Physical development policies, guidelines and strategies and the preparation of all regional and local physical development plans.

The Act gives guidance on the objectives and the contents of structure plans, development plans, advisory plans, zoning plans, subdivision plans among other plans. The Act also stipulates the plan preparation and approval processes which has been adopted in the project.

Section 29 empowers the Nakuru County Government; to prohibit or to control the use and development of land and buildings in the interests of proper and orderly development of its area and to consider and approve all development applications and grant all development Permissions.

Urban Areas and Cities Act, No. 13 of 2011

This act provides for management of cities, municipalities, towns and other urban areas. It also provides the criteria for classification of urban areas. In reference to this Act, Nakuru Town would have qualified to be conferred the status of a Municipality if it had an integrated development plan. The town meets all other conditions such as a defined population of at least 250,000 residents according to 2009 Housing and Population Census. With the completion of this planning process, the town can then apply to be conferred the municipality status.

In accordance with this Act, every City, Municipality and town is expected to operate within the framework of an integrated development plan. The plan will provide the basis for

provision of infrastructural services. The ISUDP for Nakuru town is thus timely since it will be a ready platform for the County Government to use for the aforementioned purposes.

County Governments Act 2012

This act requires that County Governments prepare their respective county integrated plans for the area under their jurisdiction as a prerequisite for funding allocation from the national treasury to finance their activities. The plan is supposed to integrate economic, physical, social, environmental and spatial aspects. It states that a County Planning Unit shall prepare the plans and they will be binding to all sub-units within the County.

This Act establishes the County Executive Committee whose role is monitoring the process of planning, formulation and adoption of the integrated development plans within the County. It also gives the County government an obligation to plan the County since no public funds for development will be issued outside a planning framework.

In Part 11 under County Planning, a county planning unit is charged with the responsibility of ensuring integrated planning and for implementation of the same within their respective area of jurisdiction. The principles and objectives of planning are also laid out. Principles such as effective resource mobilization for sustainable development guide the preparation of this plan.

Environment Management and Co-ordination Act (EMCA), 1999

The Environmental Management and Co-ordination Act is the legislation that governs the management of environment in the country. It upholds the importance of environmental protection.

Section 58 of the act recommends that an EIA be undertaken for every development that is likely to have an impact on the environment. The EIA should be submitted to NEMA for approval before the development is undertaken regardless of other licenses. The Second Schedule of the Act also requires that any activity that is out of character with its surroundings, or that leading to major changes in land use, as well as any structure of a scale not in keeping with its surroundings, undergo an EIA.

This Act establishes an independent body, the National Environment Management Authority (NEMA) to ensure effective enforcement and implementation of its provisions. The Act also provides for public involvement in any major development decisions, which have an environmental bearing. The public shall have recourse to law and shall be involved. The act also has provisions for addressing environmental offences and establishes a tribunal to deal with such offences.

National Land Commission Act, 2012

Section 5 (2) of this Act gives the National Land Commission the responsibility of managing and administering all unregistered trust land and unregistered community land on behalf of the County government. The commission is supposed to ensure that all unregistered land is registered within ten years from the commencement of the Act. The Commission will also form County Land Management Boards to manage public land within the counties. This means that the National Land Commission will have active presence in every County and is thus an important stakeholder in all land related matters within the planning area as well as the entire county.

The Water Act, 2002

This is an Act of Parliament to provide for the management, conservation, use and control of water resources and for the acquisition and regulation of rights to use water. The Act further provides for the regulation and management of water supply and sewerage services. It also provides guidelines for establishment and running of institutions which are involved in the management and provision of water services.

Public Health Act, Cap 242

The Public Health Act makes provision for securing and maintaining the health of the public. It provides standards and guidelines to clean environment, effective ventilations and liveable developments in an area. Occupational licenses are basically given under these provisions.

The Forests Act, No. 7 of 2005

It provides for the establishment, development, sustainable management, conservation and rational utilization of forest resources for the socio-economic development of the country. It recognizes that forests play a vital role in the stabilization of soils and ground water, thereby supporting the conduct of reliable agricultural activity, and that they play a crucial role in protecting water catchments in Kenya and moderating climate by absorbing greenhouse gases. It further recognizes that forests provide the main locus of Kenya's biological diversity and a major habitat for wildlife. The planning area is covered by Menengai Forest and parts of Bahati and Ndundori forests. The provisions of this Act will guide their conservation and sustainable utilization by the local community.

Survey Act, Cap 299

Herein, provisions relating to surveys and geographical names and the licensing of land surveyors are made.

The Department of Surveys, under the Director, provides and maintains plans for property boundaries in support of the Land Registration throughout the country. In preparation of this plan, existing survey data was used to prepare the plans.

The survey and mapping work done for purposes of this project do not override the role of the Director of Surveys. The maps produced during the preparation of the urban strategic plan are not an authority on boundaries.

Land Registration Act (No. 3 of 2012)

The Act gives the process of land registration for the different land categories. It gives the process for establishment of land registration units and for the establishment of land registries. Though the survey output of this project will not be regarded as an authority on boundaries, it will yield important data for the community land register.

Ongoing Legislation

It is significant to note that there are ongoing legislative processes that seek to align various statutes with the new constitution. To date, there are 3 bills before Parliament, namely the Physical Planning Bill 2015, The Community Land Bill and the Land Amendments Bill. The three are still undergoing discussions and once passed may alter the current responsibilities of various public organs from the current situation. Other laws may also be passed as required of the constitutional guidelines.

2.3 Administrative Structure and Functions

Nakuru town has a number of national and county government offices. All of the eighteen (18) national government ministries' offices are established in the town. In addition, several parastatals and service departments have offices in the town.

Nakuru town is the headquarters of Nakuru County Government. The Governor heads the county government. The county government has several arms all of which have offices in the town. The executive arm comprises of various County Executive Committee members who head different departments in the county. The chief officers manage the day-to-day administrative affairs of each department. The county government has ten (10) departments all of which are represented in the sub-counties within the planning area. These departments are:

1. Agriculture, Fisheries and Livestock Development
2. Lands , Physical Planning and Housing
3. Finance and Economic Planning
4. Health Services
5. Education,
6. ICT, Youth Affairs and Sports,
7. Public Administration, Information and Communication,
8. Trade, Investment, Industry and Tourism,
9. Transport, Roads, Public Works and Energy
10. Water, Sanitation, Environment and Natural Resource

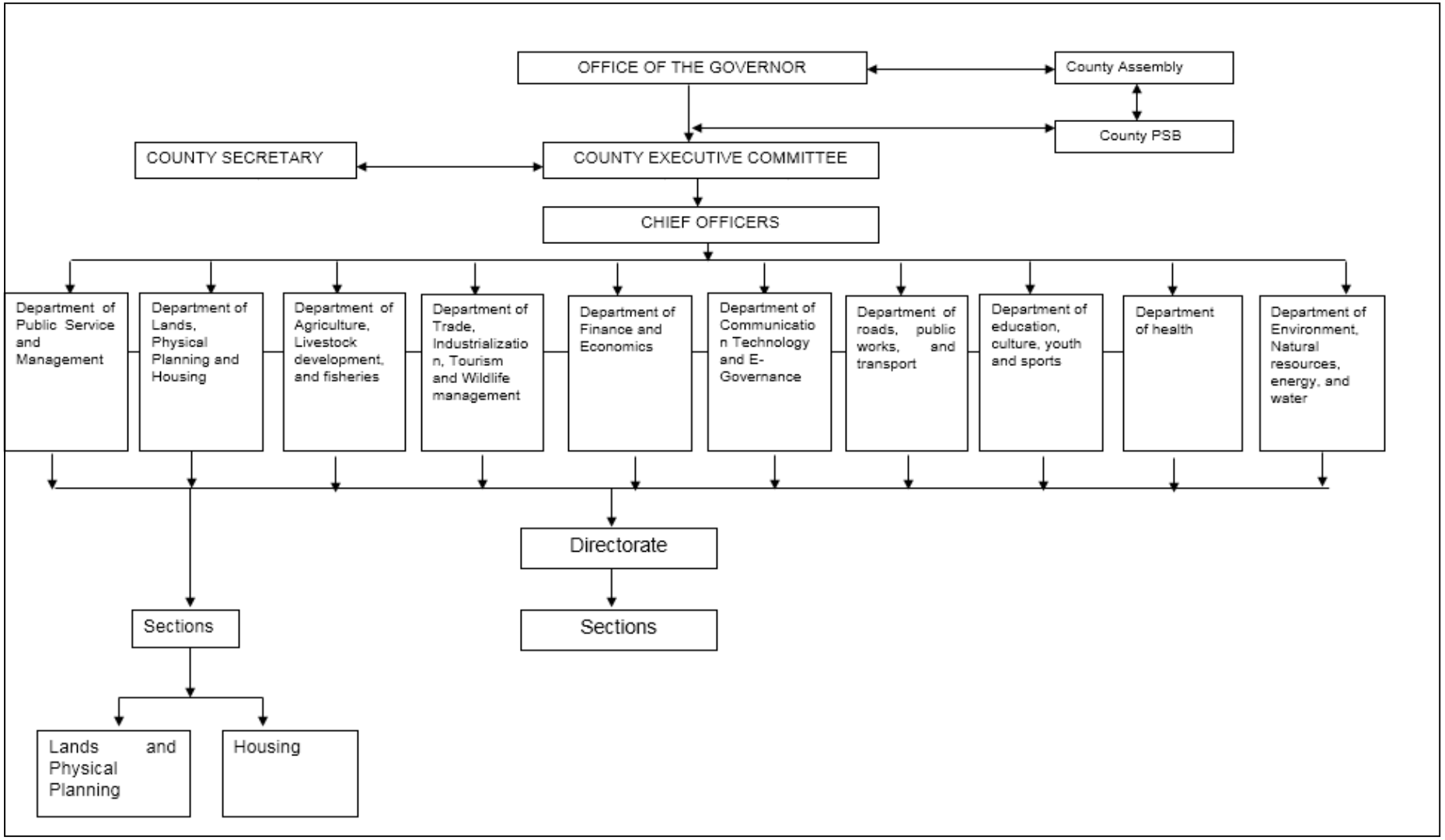


Figure 4: Nakuru County Government Structure

2.3.1 Sub-counties

The planning area covers entire two Sub-Counties namely; Nakuru West and Nakuru East. It also partially covers the three sub counties of Bahati, Rongai and Gilgil. Table 1 summarizes the portions of the total planning area formed by each Sub-County.

Table 1: Area Coverage per Sub-county

Sub County	Area (km^2)	Percentage (%)
Bahati	163	28
Nakuru West	145	24
Nakuru East	140	24
Rongai	122	21
Gilgil	21	3

2.3.2 Wards

The area covers twenty (20) wards as shown in the table below. All the wards are fully within the planning area except Menengai West and Eburu.

Table 2: Area Coverage per Ward

Ward	Area (km^2)	%
Menengai West(part)	40	11.5
Kiamaina	37	11
Mosop	37	11
Lanet/Umoja	28	8
Dundori	25	7
Kapkures	25	7
Nakuru East	22	7
London	21	6
Kabatini	19	6
Barut	18	5
Njoro	18	5
Mbaruk/Eburu(part)	15	4
Menengai	7	2
Kiambogo	6	2
Kaptembwo	5	1
Kivumbini	5	1
Biashara	3	1
Flamingo	2	1
Shabaab	2	1
Ronda	1	0.5

Source: IEBC, 2012

2.4 Key Institutions

In the preparation of this ISUDP, key institutions were involved including the National Government, the County Government of Nakuru as well as organized interest groups.

The Ministry of Lands, Housing and Urban Development (MoLHUD), this is the National Government agency managing the project under the Kenya Municipal Programme (KMP). The Ministry provides the overall supervision function of the project. The Ministry particularly represents the Government of Kenya component in the project.

The County Government of Nakuru has the local jurisdiction over Nakuru town. The County Government provided technical support to the project steering committee that aided the plan preparation process. In addition it provided the logistical support and administrative services needed by the project team and consultants.

The County Assembly, the legislative arm of the county government **is** a crucial entity within the devolution structure as it is the law making body and its members are the legal representatives of the community at the County level. The duty to approve all plans including this ISUDP is vested in the county assembly of Nakuru.

The County Executive Committee the administrative arm of the county in charge of monitoring the plan preparation and it is also its duty to monitor and oversee its implementation. This institution also ensured as mandated by law that the ISUDP proposals aligned to Nakuru County's developments strategies and aspirations.

The County Executive Committee (CEC) member in charge of Lands, Housing and Physical Planning is the policy head on matters related to planning. The member oversees planning matters and will be responsible for submitting the plan to the County Assembly for approval.

Hierarchically below, the CEC is the Chief Officer and subsequently the Director of Lands and Physical Planning who heads the section on Lands and Physical Planning. Personnel within this structure are critical stakeholder in the planning process. Figure 7 below shows the department's organogram:

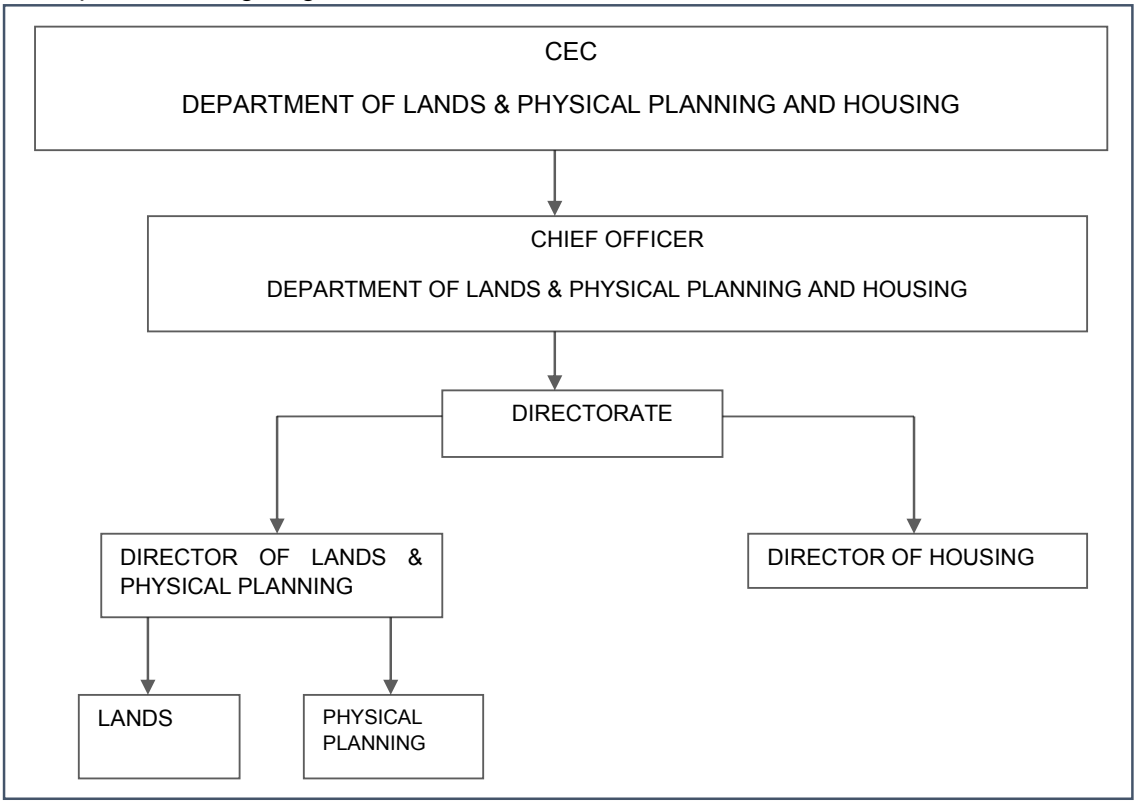


Figure 5: Nakuru County Department of Land, Physical Planning and Housing

Other key officials include the County Planners and Surveyors who play a vital role in providing technical inputs to the plan preparation.

2.5 Planning Vision

The preparation of the plan required the formulation of a planning vision. This is a necessary prerequisite to a strategic planning exercise. The visioning process in itself took into consideration various guidelines spelt out in some key relevant visions. This includes the Kenya's Vision 2030, Nakuru county vision and the KMP mantra.

The Kenya Vision 2030 seeks to make Kenya a globally competitive and prosperous middle income nation with a high quality of life by 2030. The County Government of Nakuru on the other hand seeks to make Nakuru a county of diversity which is secure, cohesive and industrialized.

Besides the above, the KMP Mantra which seeks to make Kenyan towns work was also a key consideration to the formulation of the planning vision.

The visioning process started with the sensitization of stakeholders on the need for planning vision. This was undertaken during the first workshop whose objective was awareness and mobilization. Subsequently, stakeholders were required to formulate possible visions options on the Nakuru they want.

Later during the Visioning Workshop held on 29th January 2015, intensive discussions were held touching on the merits of the various options so as to obtain consensus on the preferred vision. Like in all democratic processes, the various options were put into a vote and a choice of top three were agreed upon as stated below.

- To be a sustainably planned town
- To be a clean and healthy town
- To be an industrialized, clean and economically empowered town

In order to encourage inclusivity, the consultants were then mandated to draft vision options encompassing the three which was then to be further subjected to a final discussion during the draft plan workshop.

After discussions, the planning vision agreed on by the stakeholders was;

''to be a well-planned cosmopolitan, clean and environmentally friendly city''

The vision aims to develop Nakuru as a well-planned, compact and integrated city that is resilient, sustainable and cosmopolitan, providing for a safe and liveable quality of life for all its citizens. It is to guide the development of the town as a model "green city" that is clean, safe and forms a dynamic urban centre. It recognises the cosmopolitan nature of its population and the potentials emanating from such diversity. It also reinforces the town's position as the county capital; that is developed in a sustainable manner on sound ecological principles that protects its natural assets while establishing a well-functioning multi-sectoral economy. It emerges from the vision that Nakuru is to establish itself as an **"***Eco-Friendly City*".

The vision directs the overall development guidelines and leads to the establishment of growth trajectories that underpin the urban design proposals and interventions outlined in this work

2.6 Conclusion

The reviewed policy and legal provisions are sufficient and were strictly adhered to in the preparation of this ISUDP. It emerged, however, that there is an apparent duplication of roles, coupled with glaring loopholes within the existing institutional structure. This may jeopardize plan implementation process. Bearing in mind therefore, the importance of having a clear distinction of roles and responsibilities assumed by each of the key institutions, a refined institutional structure has been proposed in a later chapter of this report. There is also need to build the capacity of these institutions so as to enhance service provision and provide a comprehensive and effective development control framework to guide and regulate land use.

CHAPTER THREE

EXISTING SITUATION

This chapter gives an overview of the physical and socio-economic character of Nakuru town; the planning challenges facing the town; the growth drivers and potentials of the town which can be explored further. It is basically a SWOT analysis of Nakuru town and so forms the basis of the draft plan proposals.

3.1 Physical and Natural Environment

Nakuru town has varied topography ranging from the steep slopes of the Menengai crater to the gentle slopes in the CBD and surrounding areas. Flat areas include Kabatini, Wanyororo, Mbaruk and Lake Nakuru's floor at 1759 m above sea level. The Menengai, the highest point peaks at an altitude of 2278 m above sea level.

The slope character offers varied potential for spatial development which offers diverse opportunities for urban development. The favourable climate and fertile loam soils, which are predominant in the town, support agricultural activities. The town however has geologically unstable areas as proven by occasional landslides in Ngata and Kiamunyi. In such areas, it is proposed that development be restricted or controlled. Ecologically sensitive areas to be protected and conserved include the Lake Nakuru, national park, the Menengai crater and the riparian reserves.

Figure 6 shows the environmentally fragile areas. The plan proposals provide for their protection and conservation by giving guidelines which restrict development in their reserves. The Menengai Crater, the forest and the Lake area offer a rare opportunity for having such large open public spaces that are essential large urban developments.

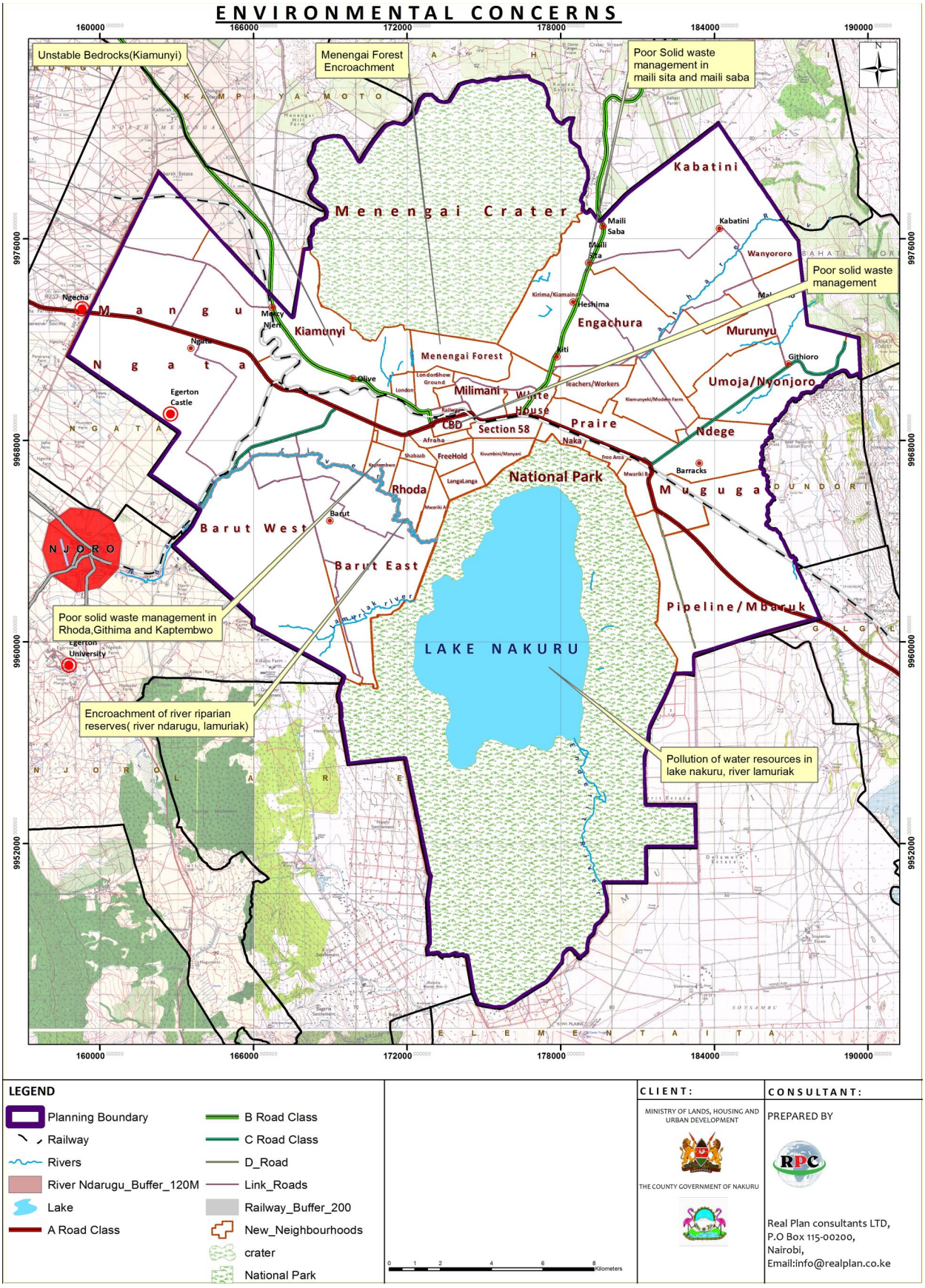


Figure 6: Environmental Concerns

3.1.1 Climate

Generally, Nakuru town experiences a warm temperate climate due to its high altitude and location within the Rift Valley floor. The hottest month is March with highs of up to 29.3^{0}C. The cold season falls between July and August with an average temperature of 16.5^{0}C.

The planning area has a bimodal rainfall pattern with January being the driest month while April is the wettest. The rainfall is moderately high with mean annual rainfall ranging between 950 -1500 mm per annum. This displays a huge potential for both cash crop and food crop agriculture.

3.1.2 Topography

The topography of Nakuru town varies from one point to the other as already discussed. It emerged that certain areas within the town are deemed more suitable than others for locating certain land uses. For instance, areas around the Menengai Crater have the steepest slopes and are hence are neither suitable for human settlements nor urban development. The Menengai forest area and the Lion hill within the park have fairly steep slopes while the Milimani and Kiamunyi areas have gentle slopes offering varied growth opportunities.

Nakuru town's CBD and adjacent areas are located on gently sloping land with gradient of 0-2 degrees and are hence quite conducive for urban development.

Flat areas including Kabatini, Wanyororo, Modern, Ndege, Mbaruk, and Pipeline are also quite suitable for urban development.

3.1.3 Hydrology

The town's hydrology is dominated by Lake Nakuru which occupies an area of 52.92 Km^2. This accounts for about 8.6% of the planning area. The lake is saline and generally shallow**.** It is located with the lake Nakuru National Park and therefore a restricted area. The lake is permanent and does not dry up year round. More recently, like other lakes in the Rift Valley, the lake water levels have risen significantly affecting buildings and vegetation around the shores.

Other significant features are the rivers that drain into the lake namely-R. Njoro (Ndarugu), Enderit and Lamuriak.

3.1 4 Geology

Fertile loam soils dominate most parts of Nakuru town yet areas around the lake have alluvial and sandy soils. Geologically, the Menengai Crater is the most notable feature in Nakuru and is estimated to be 8,000 years old. It is categorized as an extinct volcano and elicits great tourism potential for the town.

Areas near Lake Nakuru have alluvial and sandy soils. Alluvial soils are not conducive for dense development and therefore zoning for dense developments has been done away from such areas. Bordering the region with the alluvial soils, are regions of deep soils with high fertility. Much of this area has been zoned for urban agriculture since the soils here are most productive. Moderate to deep soils characterizes. The region towards the crater away from the lake is characterized by moderate to highly fertile soils, whereas the other areas have saline soils. These soils are of a generally loose, volcanic and porous nature. The soil thickness varies between 2m and 10m mostly, however, some areas show soil thickness of up to 20m and above. The loose porous soils are susceptible to dust storms. The

predominant soil type is however loam and contains all the plant nutrients required for plant growth. The areas within the crater consist of rock outcrops and poor soil formation associated with the more recent volcanic activities.

3.1.5 Vegetation and Wildlife

The most common natural vegetation in the town is woodland and grassland. Much of the higher southern slopes of the Menengai overlooking the downtown area is dominated by exotic plant species. In Lake Nakuru National Park the vegetation much consists of natural marsh and grasslands alternating with a stretch of acacia, woodland and Euphorbia. The Menengai caldera features a variety of plant species including bush lands, grasslands, forests and woodlands.

Natural forests in the planning area include; Menengai, and parts of Bahati and Dundori forests. In the built up urban areas, exotic vegetation such as the Jacaranda, Grenville, and Acacia species are common.

Plant vegetation is common in the peri-urban areas where agriculture still dominates and comprises cash crops such as coffee and pyrethrum, and food crops such as maize, beans and kitchen vegetables.

The most notable wildlife concentration area is the Lake Nakuru National Park, renowned for its flamingos. It is also home to the black rhinos, endangered white rhinos, buffalo, lions, warthogs, baboons and Rothschild giraffes among others species. These offer a potential for both local and international tourism.

3.2 Population

Nakuru town had a population of 432, 459 in 2009 representing 27% of Nakuru County's total population and 1.12% of the 38.6 million persons in Kenya at the time. Currently the population is estimated at 547,207.

Table 3 below shows the population size and projections in the Sub-Counties in the planning year and subsequent five year periods to the end of the plan duration:

Table 3: Population Projections by Sub County

Sub-County	2015	2020	2025	2030	2034	%
Nakuru West	188,330	229,132	278,774	339,171	396,782	34
Nakuru East	187992	228,721	278,274	338,562	396,069	35
Bahati (part)	123,655	150,445	183,039	222,694	260,520	23
Rongai (part)	40,231	48,947	59,551	72,452	84,758	6
Gilgil (part)	6989	8,503	10,345	12,586	14,723	1
TOTAL	**547,207**	**665,748**	**809,983**	**985,465**	**1,152,852**	**100**

Source: Adopted from KNBS, 2009

The average population density for the urbanized area is about 1,000 Km^2, while the adjacent peri-urban areas are relatively less dense with an average density of about 400 Km^2. Nakuru is considered cosmopolitan owing to its long history of immigration and peaceful co-existence of the communities. The variety of opportunities offered and the cosmopolitan population has created a highly enterprising culture amongst the residents. The cosmopolitan culture of the town needs to be enhanced to enable achievement of the town's full potential.

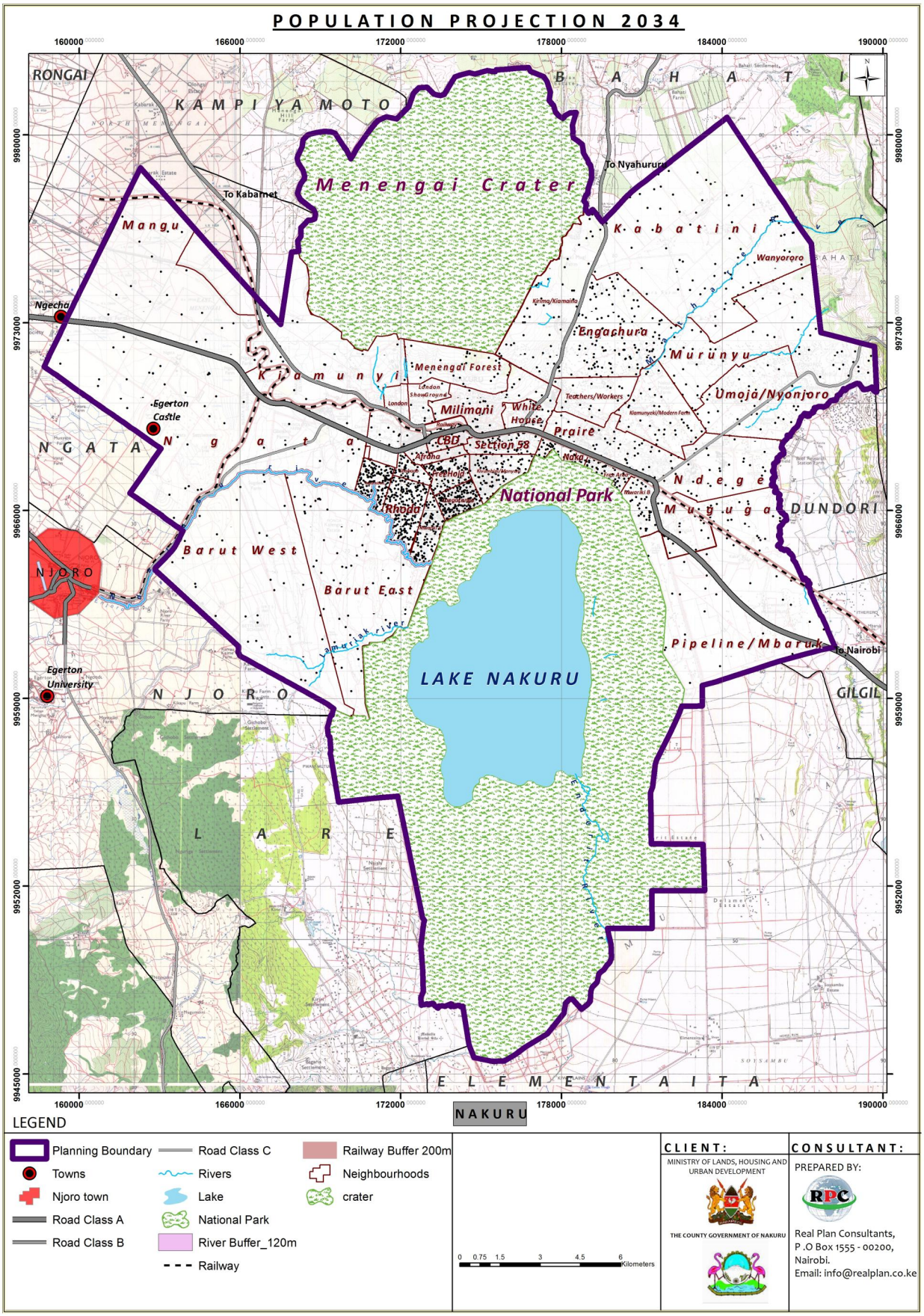


Figure 7: Population Projections

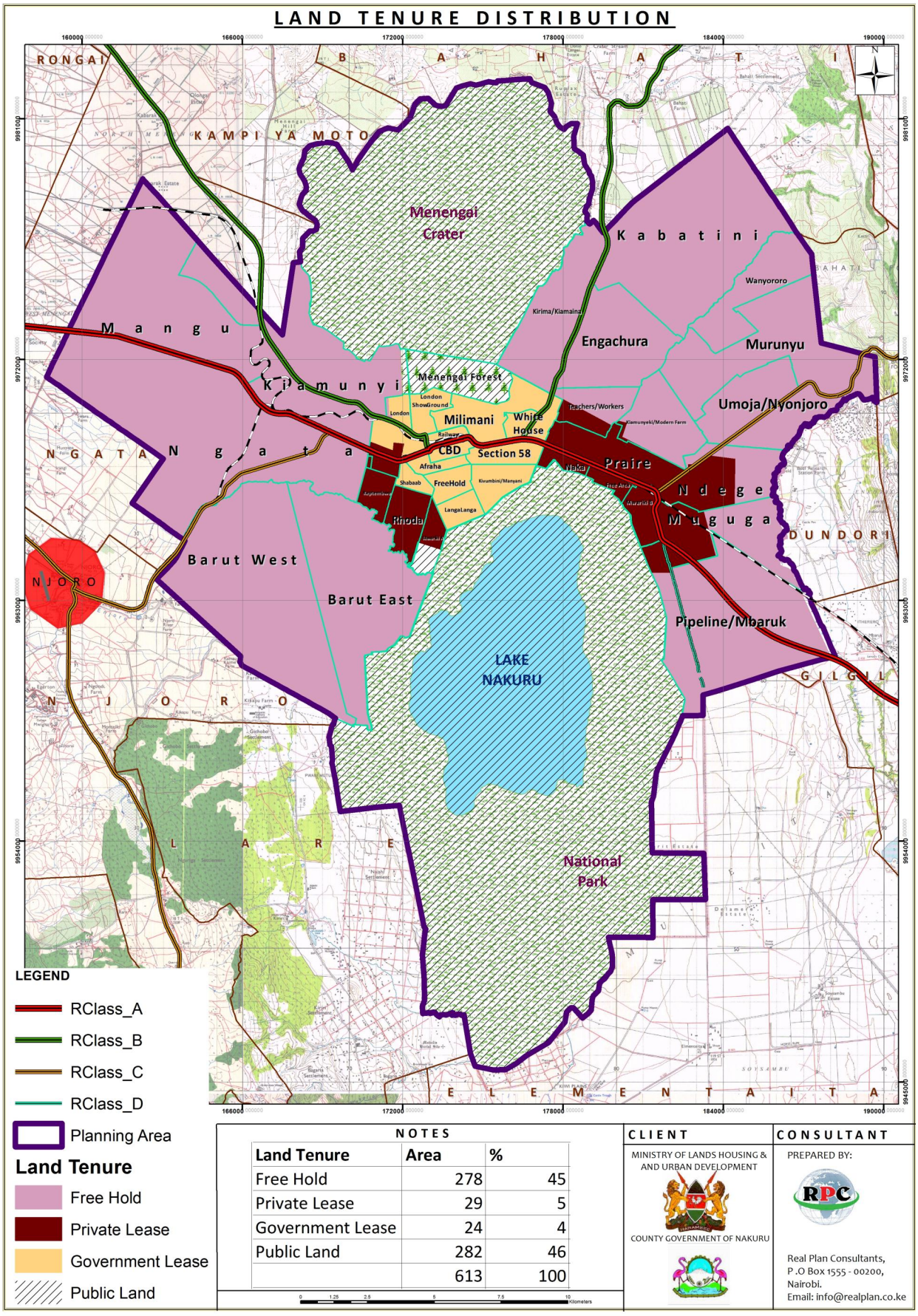
3.3 Land Tenure

Public land accounts for 46% of the total land area. Much of this land is non-alienable land made of the National Park and the Menengai Crater.

Freehold land is more dominant in the planning area accounting for 50% of the developable land. It occurs mostly in the areas outside the former municipality, such as Bahati, Umoja, Nyonjoro among others. This land is mainly held by individuals on various sizes of holdings. It may hence not be practicable to propose public projects on such land unless where compulsory acquisition measures may apply.

Private leasehold land accounts for 5% of the land and lies within the former municipality. This land is held by individuals for periods of up to 99 years and is subject to considerations for renewal or extension of lease upon expiry. These are land parcels that were created as urban plots from subdivision and change of use of previous private company and cooperative farms.

Alienated government land held on leasehold terms by individuals' accounts for 6% of developable land in Nakuru. This is land within the old town that was initially set apart for urban development during the colonial period. For public purposes however, such land may not be available in the short run period but may in the long run upon be available subject to planning and could revert back to the government in whole or in part subject to other constitutional provisions.



Land Tenure	Area	%
Free Hold	278	45
Private Lease	29	5
Government Lease	24	4
Public Land	282	46
	613	100

Figure 8: Land Tenure Distribution

3.4 Land values

Land values in the town vary from place to place. Values are highest towards the urban core and gets lower towards the outskirts. It also emerged that cost of land per unit increases with proximity to commercial nodes. The analysis of the land values informed the proposed land use distribution, whereby highly priced land was dedicated to land uses which offer relatively higher returns, commensurate with the unit cost of land.

Land values in the planning area vary as shown in figure overleaf

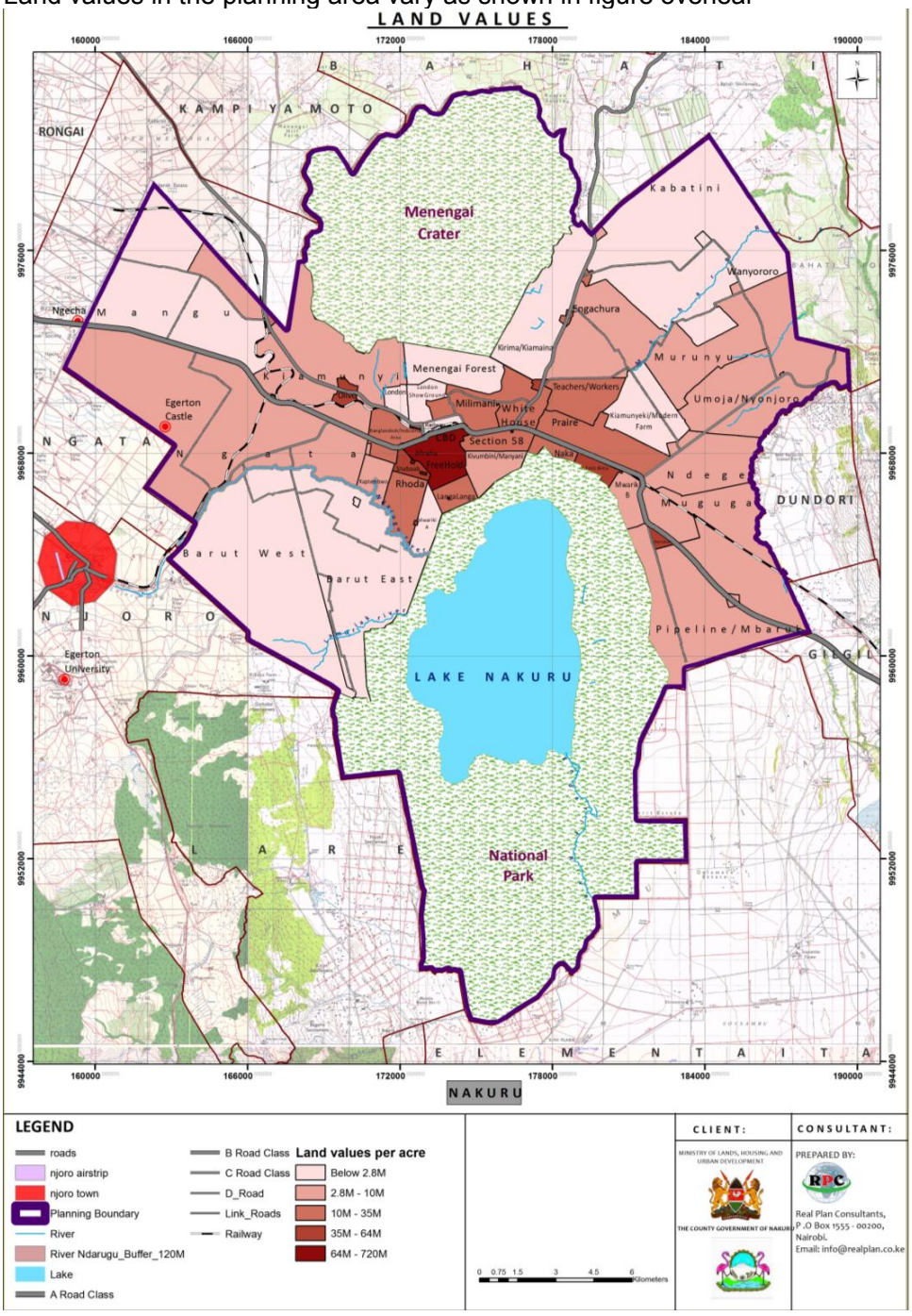


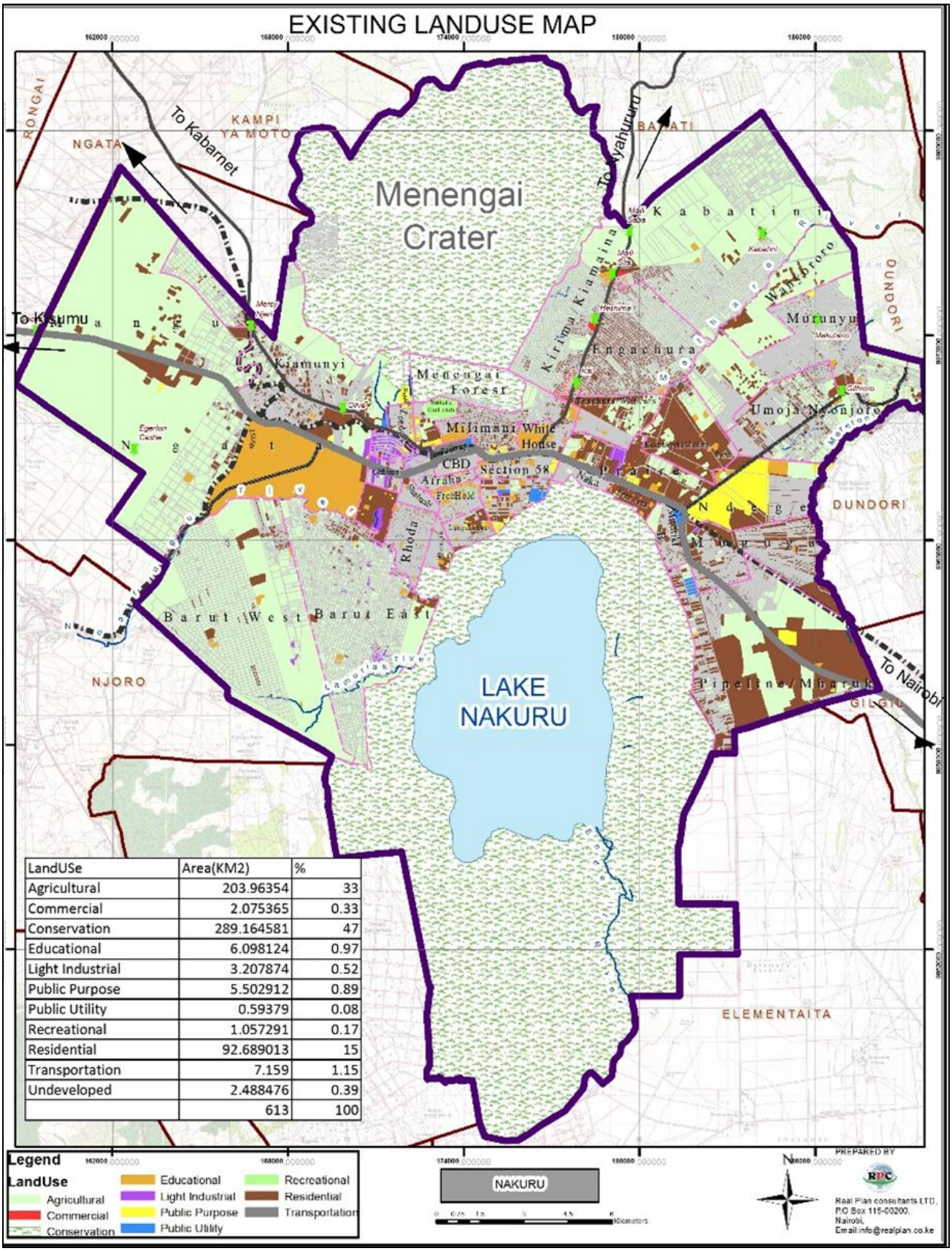
Figure 9: Land Values Distribution

3.5 Land use

The existing land use pattern was a key consideration in the preparation of the ISUDP. Key highlights from the existing land use include emergence of urban sprawl to the east and to the west, land use conflicts as a result of haphazard distribution of land uses, inadequate provision of public spaces and diminishing agricultural land.

There was thus the need to develop a proper strategy to reorganize the land use pattern in order to address the spatial challenges.

Figure 10 shows the existing land use pattern in Nakuru town.



LandUSe	Area(KM2)	%
Agricultural	203.96354	33
Commercial	2.075365	0.33
Conservation	289.164581	47
Educational	6.098124	0.97
Light Industrial	3.207874	0.52
Public Purpose	5.502912	0.89
Public Utility	0.59379	0.08
Recreational	1.057291	0.17
Residential	92.689013	15
Transportation	7.159	1.15
Undeveloped	2.488476	0.39
	613	100

Figure 10: Existing Land Use

The summary chart below summarizes the existing land use sizes in the planning area and their respective percentages.

Table 4: Existing Land Use Summary

Land Use	Area(KM^2)	Percentage (%)
Conservation	287.2	45.0
Agricultural	206.45	34.9
Residential	92.69	15.7
Transportation	7.16	1.2
Education	6.10	1.0
Public Purpose	5.50	0.9
Industrial	3.21	0.5
Commercial	2.08	0.4
Recreational	1.06	0.2
Public Utility	0.6	0.1
TOTAL	**613**	**100**

Source: Real Plan Consultants Ltd, 2015

The existing land use structure has not been well planned over time nor well laid out thus creating a design challenge. Achieving optimal designs was constrained because of the extent of investments. Indeed, this was most challenging in the high density residential areas and informal settlements. This was also a challenge in designing the town core as opposed to the peripheral areas which have less urbanized areas.

Land use trends within the peri-urban areas are rapidly changing from the original agricultural use to urban land uses such as commercial and residential. The unregulated urban growth poses a challenge to development, provision of services and environmental sustainability resulting from phenomena such as urban sprawl. This plan comes in to set area specific standards for the various neighbourhoods in the town that will be used to guide development and land use. In the recent years, massive settlements have come up along, Nakuru-Nyahururu road (Solai road) and along Ndundori road, with fairly new settlements in Lanet and Umoja areas. Another key road that is attracting a lot of settlements is the Elementaita road.

The planning area exhibits various settlement patterns with linear settlements being the most dominant. Linear settlement patterns can be traced back to the construction of Kenya-Uganda Railway and is evident along the major transportation corridors. Linear settlements

occur along transportation corridors. There major settlements along the Nairobi-Nakuru-Eldoret Highway and Nakuru-Kabarak road.

Nucleated pattern of settlement is evident in some parts of the area centered on commercial nodes. Over time however, the influence of the nodes fades away as the urban mass spreading outwards from the urban core enveloping the centres.

There are also clustered settlement patterns around the major urban nodes in the planning area including the CBD, Barnabas, Mchanganyiko, Maili Sita, Kagoto -Heshima, Maili Sita, Olive Inn, Mercy Njeri all within the planning area. Clustered settlement patterns in centres such as Ngecha and Njoro that are outside the planning area but have a great influence in the planning area.

The settlement pattern influences the proposals by helping predicting of the likely settlement trends. It also helps identify areas that have not been settled and that would be suitable for human settlement. Analysing the settlement pattern also helps identify areas that have been overstretched as a result of rapidly increasing human settlement, as well as critical informal settlements/ squatter land for purposes of proposing resettlement strategies.

3.5.1 Conservancy

As depicted in the summary chart above, much of the land in the planning area is under conservancy. This is land under the national Park and the Menengai Crater. This land is not available for normal urban development but offers opportunities for recreation and as a carbon sink within the town. The expansion of the town is not likely to veer into the two zones rather circumvent them as is evident in the linear growth along Nakuru- Elementaita road

3.5.2 Agriculture

The other major land use is agriculture, accounting for 34.9%. Urban sprawl has occurred into the rich agricultural peripheries, thus the need to develop a proper strategy for the urban growth to manage growth into agricultural spaces.

3.5.3 Housing

A significant amount of land in the planning area is under housing. Housing is one of the major functions of the town and has attracted a lot of investment from both the public and private sector. According to the 2009 census, the planning area had a population of 428, 670 housed in the town. Housing providers range from private to public with a number of houses being provided by institutions.

Housing Development is one of the earliest functions of the town. The earliest housing schemes were established close to the railway facilities. Indeed, the early housing was railway housing known as landhies that were established as part of the railway line development. This was established along landhies road which runs south of the CBD. Other early housing schemes clustered in the same area and include the Majengo, Kivumbini, Bondeni areas.

Later public sector housing schemes emerged including Flamingo Phase 1 and 2, kaloleni A B and C, Abongolewa and others. More recent public housing was constructed include Ngala, Moi flats located south of the current CBD.

Over time, the private sector continued to overshadow the public sector in housing. The private sector housing is dominated by the construction of individual plots many of which are owner occupied though increasing numbers are for rental purposes. Some have also undergone second generation subdivisions. Most private sector housing is constructed on plots previously owned by members of land buying companies. Housing estates such as Kiamunyi, Rhonda, Katembwa, Mwariki, Teachers, Workers, Engashura, and Kiamunyeki were built on plots owned by members of cooperatives.

In the recent past, estates developed as gated communities are starting to emerge within the private sector as opposed to individual plot developments that for a long time dominated private sector housing. This is a positive development since gated estates provide a wider package of facilities within a housing scheme. This is likely to improve the quality of housing, increase densification and reduce urban sprawl.

Various densities of housing have also emerged. High density housing is found in such estates as Rhonda, Kaptembwa, Mwariki, Langa Langa, Free Area, White House and Majengo. Others include the former municipal housing schemes of Flamingo, Kaloleni and adjacent areas. Plots here characteristically are multiple dwellings and many households occupy one plot. House sizes are small ranging from single rooms to two bedrooms. House rents are also low starting from even as low as KShs 800 per room per month in some areas. Sharing of sanitation facilities is also common especially in the lower income areas.

Medium density housing is found including the lower end estates such as Teachers, Workers, Ngala Flats, Shabab and Kenlands. High end middle income housing includes as and Naka. Whereas the low density housing schemes include Milimani, parts of Lanet, Parts of Naka, Section 58, Prairie, Neylan Hill and Parts of Mwariki East.

3.5.4 Commerce/urban nodes

Commerce is a major economic activity within the planning area as the sector contributes largely to the economy of the town. Most of the commercial activities are located within Nakuru's Central Business District. Other commercial nodes include Kiamunyi and Mercy Njeri along Kabarak Road; white house, Maili Tatu (Mchanganyiko), KITI, Maili Sita and Maili Saba along Solai Road, Bahati, Kambi Moto, Solai/Wanyororo among others. The most dominant forms of business in the town's economy include: retail, general wholesale, outlets for agro-industrial machinery, motor vehicle trade, spare parts and servicing. There is also a significant network of financial institutions providing banking, insurance and credit services to the business community.

3.5.5 Industries

Manufacturing

Nakuru town can be considered one of Kenya's leading towns in the agricultural processing industries. In this respect, the town is home to many agro-based processing and manufacturing industrial activity, benefiting not only the immediate hinterland but also the country at large.

The principal industrial manufacturing area is located to the west of the CBD along the along the railway line. Many manufacturing enterprises are located here. Other minor manufacturing locations include the Nakuru Blankets, Kenya Pipeline Depots at Pipeline.

Service industries

The tertiary/service industrial sector is characterized by small scale enterprises which are more spread throughout the town. The activities are located within the Jua Kali areas located in the Industrial area to the west, the peripheral areas of the CBD and within residential neighbourhoods.

Mining

Mining activities are primary for the extraction of various types of building materials. This includes sand and building stone and ballasts. Building sans is abundant in many parts of the town. Mainly volcanic, the sand is obtained from Barut areas, Rhonda, Elementaita-Pipeline and in Bahati. Some of the mining is along river Njoro creating environmental degradation as shown in figure 10. In Bahati and Elementaita-pipeline area, sand is mined underground from shallow depths. Some of the closed quarries in such areas offer opportunities for sanitary landfills.

The principal source of ballast is the Kagoto Quarry located along Solai road. Lower quality ballast is also obtained from wastes from private building stones quarries in Bahati. The latter are small scale are ballast production is manual.

3.6 Land Availability

An analysis of the land available for urban development was also done where it emerged that about 46% of land in the planning area was not available for development. This is land that is occupied by Menengai crater, Menengai Forest, Lake Nakuru National park and the safeguarding area under the Military. The unavailable land is about 291 km^2.

Of the 322 km^2 of land available, there are some other considerations that affect access and availability such as the land tenure. Therefore, about 275km^2, which is held under Freehold tenure would be more readily accessible and available for development, while about 24km^2 held under private leases, representing about 5% of the planning area would be available for development but with moderate accessibility. The remaining 4% held under government leases while still available for development, has very strict accessibility.

URBAN LAND AVAILABILITY	**AREA(km^2)**	**%**
Readily available and accessible	275	45
Moderately available and accessible	24	5
Scarcely available and accessible	23	4
Not Available for development	291	46
TOTAL	**613**	**100**

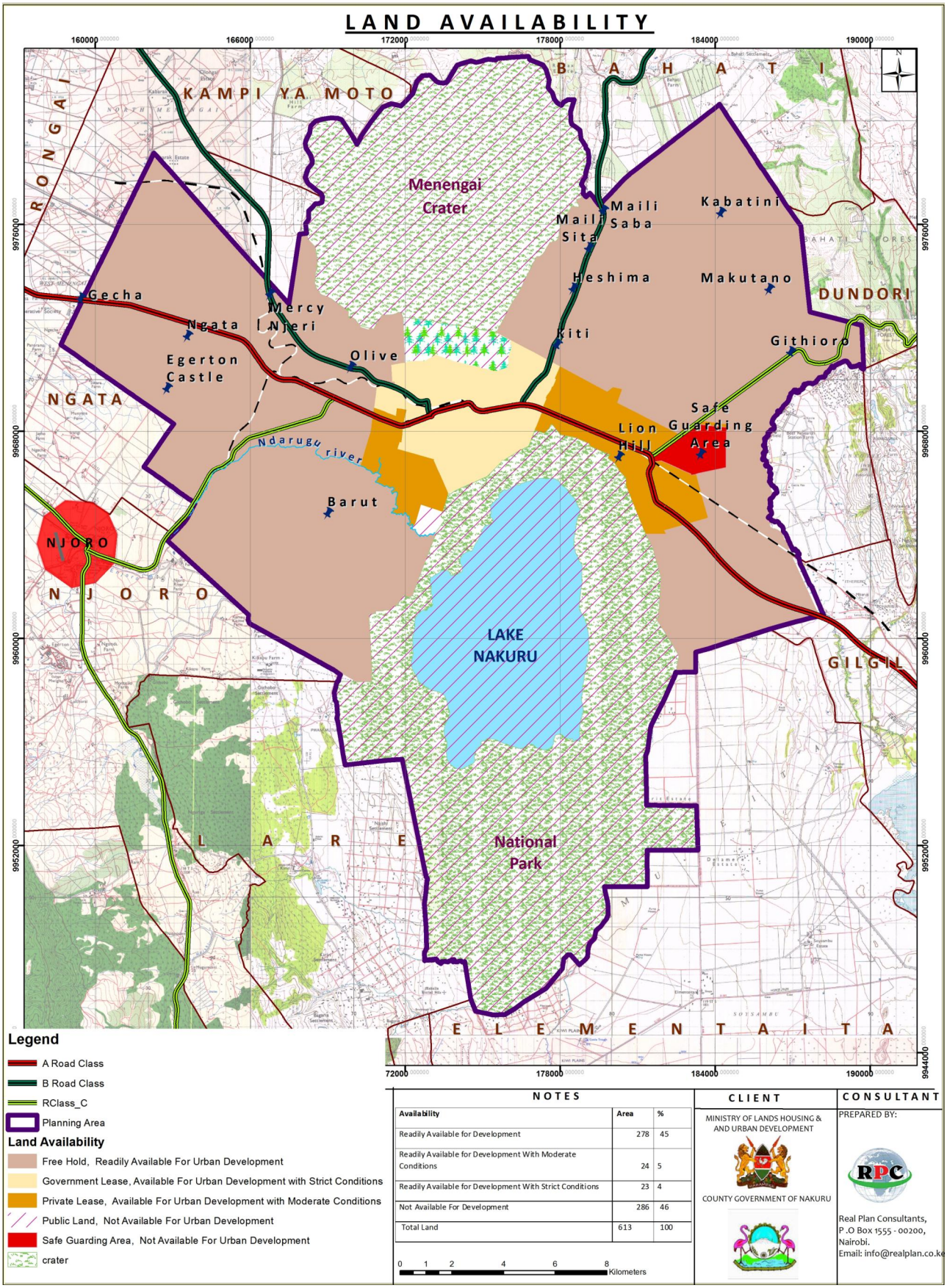


Figure 11: Land Availability

3.7 Land Suitability

Land suitability determines the optimal siting of the various land uses which form part of the plan. The planning area has diverse geographical and topographical characteristics which influence land use and distribution throughout its extent. A land suitability analysis was therefore necessary in order to rate the suitability of the land to accommodate the different land uses in the various localities.

Land in Nakuru is categorized into four categories based on suitability for urban development as seen in table below. The categorization considered the slope, soil and drainage characteristics.

Table 5: Land Suitability Analysis Summary

Suitability Category	Characteristics	Areas	Land size(km^2)	Percentage
Areas of High Suitability	Flat/very gentle slope (0-2°), No faulting, Well drained, Very deep soils(180cm+)	Old Nakuru town	161	26.3%
Areas of Moderate Suitability	Flat to gentle slope (0-2°), Few incidence of faulting/subsidence, Shallow depth of ground water (20-40m deep), Well drained (drainage density 0.3-0.4km/km^2),Sensitive watershed, Very low to moderated levels of soil erosion (affected area 0.5%), Very deep soils (180cm+), Very low to moderate occurrence of surface rock (0-25%)	Kabatini, Dundori, Bahati, Elementeita	144	23.5%
Area of Low Suitability	High incidence of subsidence due to faulting, Very deep unstable soils(180cm +),Mbaruk Valley poorly drained(drainage density +1.0km/km^2),Shallow soils and presence of surface rocks/stones on Mbaruk ridge, parts of Baruti, Gichobo/Naishi area(0-25cm)	Kiamunyi, Rhonda Baruti, Gichoho, Naishi, Mbaruk	21	3.4%
Areas not Suitable	Bahati Forest and crater slopes are watershed for conservation, Bahati and crater slopes very steep (16°-30°), Crater slope adversely dissected by natural drains (drainage density 0.8km-1.0km/km^2), Presence of stones and surface rocks on crater slope, Soil erosion leading to shallow soils (20cm-25cm deep), National Park is a fragile ecosystem for conservation.	Crates and the slopes, Bahati Forest and L. Nakuru National Park	287	46.4%

Adopted from Strategic Nakuru Structure Plan, 2001

The land suitability analysis is summarized in figure 12 below;

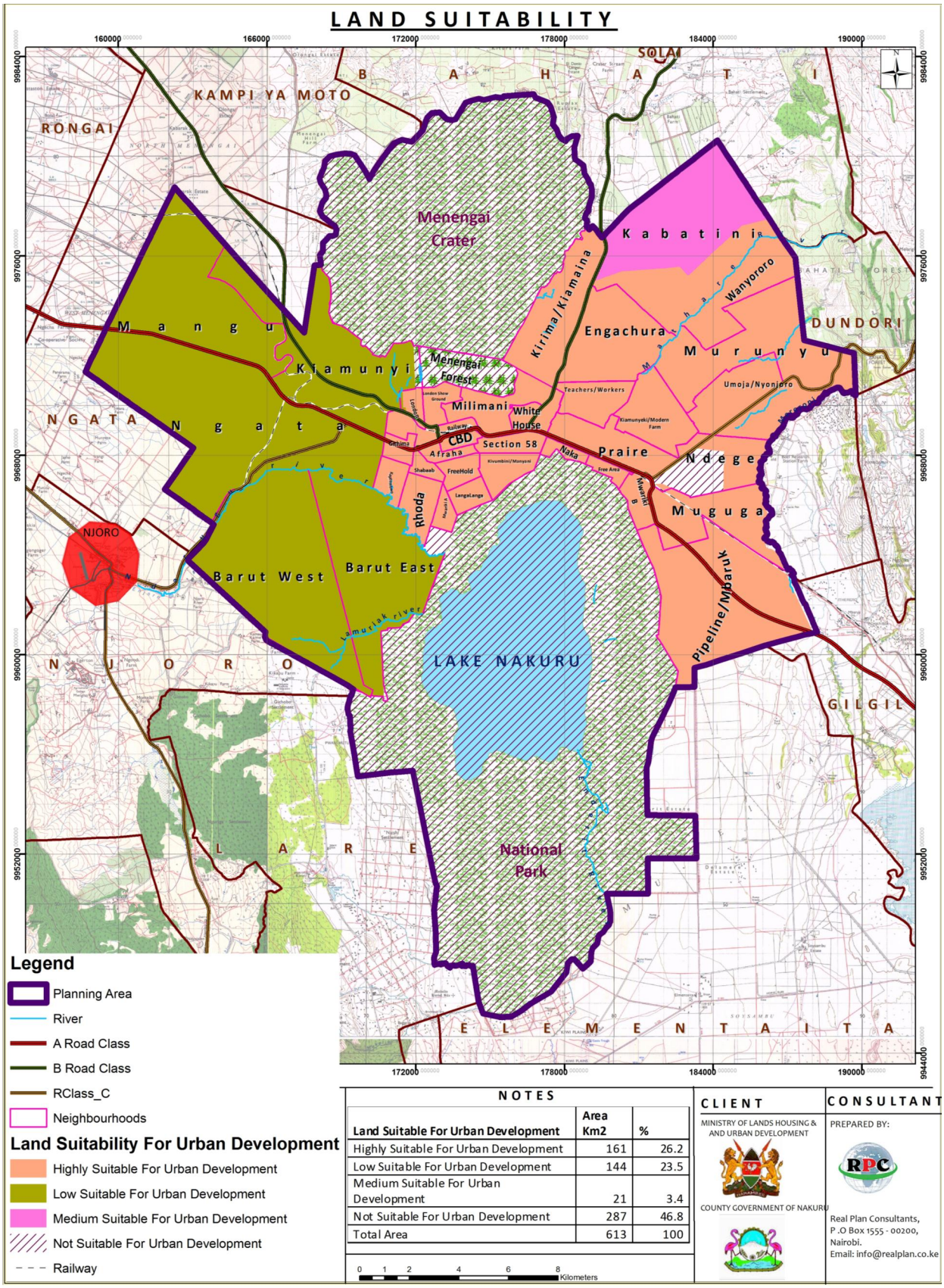


Figure 12: Land Suitability

3.8 Infrastructure and Services

Most infrastructural facilities in Nakuru town are overstretched while others are underutilized. The road sector facilities are generally overstretched while the railway facilities are particularly underutilized. Vehicular and pedestrian congestion is particularly a nuisance within the CBD. This can be attributed to the increased traffic volumes as a result of the town's growth. Informal business activities along the road reserves within the CBD further compound the congestion problem. There is no provision for non-motorized movement on the road reserves which is a major planning challenge.

Also, the sewerage network needs to be expanded to cover areas outside the former Nakuru municipality. It also emerged that existing sewer treatment plant was underutilized, calling for the need to rehabilitate the plant and optimize its use.

The planning area also has great potential for investment in the ICT sector, which should be exploited.

3.8.1 Transport

The two major transport modes of travel besides NMT are road and railway. Nakuru town is strategically situated along the A104 Highway, which serves as the major transportation corridor between major cities, Nairobi, Mombasa and Kisumu. The other two corridors are the Nakuru-Kabarnet and Nakuru-Solai roads.

Nakuru County has a railway line stretching up to 192 Km, a small section of which passes through the planning area. There is a train station that serves as a drop-off /collecting point for agricultural and industrial goods as well as providing public transport. The railway line connects Nakuru to the local and international markets. The potential for railway transport within Nakuru town has however not been explored despite its great potential.

3.8.2 Energy

The major energy sources in the town include electricity, wood fuel, gas, paraffin, and solar. The utilization of the above types of energy varies with availability and household incomes.

The area has 192,566 connections to the National Grid. About 48% of the households have access to electricity. Geothermal energy is also generated at the Menengai Crater and fed into the National grid. Availability of energy is an essential requirement for development.

3.8.3 ICT

Nakuru town is well connected with ICT infrastructure. In addition, the area has a good coverage of all mobile phone operator networks including Safaricom, Airtel, Orange and Yu Kenya. The large number of M-Pesa shops, indicates the high demand for mobile money transfer system.

Estimates from the 2009 Population and Housing Census indicate that 75% of households own a mobile phone, representing about 45,481 households. Mobile network coverage in the county is at 91 per cent. However, landline connectivity and post office presence is low at 1.3% and 12% respectively. This is partly related to vandalism and the rising competition from wireless communication. It is worthy to note that a number of government departments have adopted e-government leading to installation of requisite ICT equipment in offices.

There are quite a number of cybercafés owned by private entrepreneurs within the town. Information exchange is a key requirement in the acquisition of new development ideas.

3.8.4 Services

Water supply

According to Rift Valley Water and Services Board (RVWSB), water for Nakuru Town is currently obtained from both ground and surface sources. Boreholes provide 85% of water supplied from ground water sources. The rest (15%) of water is supplied from the two main rivers, Malewa that drains into Lake Naivasha and River Ndundori that drains into Lake Elementaita.

According to NAWASCO, there are 32,000 water connections which serve domestic, commercial, industrial and educational purposes. Production of water is 41, 745 m^3/day against an estimated demand of 70,000 m^3 /day. This implies a shortfall of about 30,000 m^3. This is a challenge that needs to be addressed urgently as the demand continues to grow and sources dwindle.

Sewer Services

The sewerage reticulation network coverage is about 24.7 km^2. The sewer network covers about 50% of the water supply area and constitutes about 4.17% of the planning area of 613 km^2. The earliest sewer lagoons serving most of the old town are located south west of the CBD adjacent to the park. The more recent ponds are located in Mwariki. To the south also adjacent to the park. It is noteworthy that the sewerage coverage matches the main mode of human waste disposal in urban households of 25%. Frequent blockages and overflows are often reported.

The sewerage network covers the CBD, Industrial Area, and Municipal Council of Nakuru Housing Estates, Shabab, Biashara, Kivumbini, Pangani, Lakeview, Racetrack, Gilani Estate, Prisons, Lanet Army Barracks and their immediate surroundings.

London, Menengai, Kaptembwa and Flamingo are partially covered by the sewerage network. Consideration should be made to provide sewerage services to the whole area covered by these wards since they already have piped water and the population densities point to public health and economic benefits being accrued.

Cesspools and septic tanks are common mainly in high-income areas such as Milimani and in public institutions outside of the sewer network area as well as in some newly settled areas like the middle and high-income residential areas of Kiamunyi, Teachers and Naka. The use of pit latrines is common in the low income, high-density neighbourhoods.

3.8.5 Solid Waste Management

Solid waste collection is done partly by the County Government using the facilities/vehicles available. Solid waste is also managed through public-Private Partnership where the County Government has sub contracted Community Based Organizations (CBOs), to collect and dispose solid waste. The only dumpsite, Kyoto, is in poor condition. Solid waste recycling CBOs based in the town such as Nakuru Waste Collectors and Recyclers Management (NAWACOM) recycle some of the waste.

The major challenges linked to solid waste disposal include lack of alternative land for relocation of the dumpsite and lack of awareness/willingness to segregate waste at the source. Others include lack of ideal trucks for waste transportation and poor enforcement of waste management policies and legislation.

3.8.6 Social Facilities

Social facilities in Nakuru town include educational, religious, health facilities, libraries, a fire station, a post office, stadia and several playgrounds as discussed,

Educational Facilities

The planning area has about 600 educational facilities. Of this total 384 are ECDE, 118 are primary schools, 94 are secondary schools and 5 are tertiary institutions.

Health Facilities

There is a total of 100 health facilities of which are within the planning area. The facilities range from hospitals and medical clinics to dispensaries. The Rift Valley General Hospital is the premier health facility and serves not only the planning area but as the referral hospital for Nakuru and its environs.

Religious facilities

Majority of the population in Nakuru town are Christians. In total, there are about 72 registered churches, several mosques and temples.

Security Facilities

Security facilities in the planning area consist of police stations, police posts, chiefs' camps, prisons and law courts as summarized in table 6 below.

Table 6: Distribution of Security services and Facilities in Nakuru

Facility	Name
Police station	Central police station, Kaptembwa, Bondeni, Lanet and Nakuru police dog section
Police post	Menengai, Section 58 and Kaptembwa
Prison	London
Chief's camp	Lanet/ Umoja and Kaptembwa
Ass. Chiefs office	Mchanganyiko
Law courts	Nakuru law courts

Recreation Facilities

There are a number of recreational facilities including parks, museums and a garden which is also a tourist attraction site in Nakuru town.

The town has one major stadium, Afraha, located to the south of the CBD, which has a capacity of about 8200. Other significant sports grounds include; Nakuru athletics sports club, Nakuru Golf Club, Rift Valley Sports Club and YMCA Nakuru. These are however smaller sports grounds (playgrounds) situated mainly in residential neighborhoods, hence are poorly maintained and inadequate.

Community play fields in the town include: Kisulisuli playground and Kamukunji playground - Nakuru East Sub County, Shabab playground (volleyball) and Mazembe play ground in Ronda estate - Nakuru west Sub County.

Community playground in Bahati ward - Bahati Sub-County. Rongai community field, Kambi ya Moto community field and Banita community playground - Rongai Sub-County.

Some of the challenges facing sporting facilities include lack of perimeter walls, poor leveling of fields, lack of proper drainage, inadequate/lack of shades for the players and fans and racing tracks. Some facilities are poorly marked with inadequate modern security rooms, washrooms and changing rooms.

Fire stations

The only existing public fire station is the Nakuru Fire Station located in Kivumbini, off Landhies Road. However, G4S Kenya also offers fire response services in the town.

Social Halls

There are 5 social halls within the planning area operated by the County Government of Nakuru.

Homes and Rehabilitation centres

There are two homes for the elderly: one in Manyani, Kivumbini and the Dolly Care Rehabilitation centre for the elderly in Kiamunyi area, Menengai West ward. There is also a street children rehabilitation centre, SCANN (Street Children's Assistance Network of Nakuru) in Kivumbini ward.

Mortuaries and Cemeteries

There are five (5) mortuaries within the planning area provided by Rift Valley Provincial General Hospital, Nakuru War Memorial Hospital and Pine Breeze and Valley hospitals.

The planning area has three (3) cemeteries, one at Nakuru North located near the Rift Valley Provincial General Hospital, one at Nakuru South in Manyani near L. Nakuru National Park and the PCEA cemetery. There is also a crematorium at Kivumbini.

Library

The Kenya National Library Service operates a library within the CBD along Ronald Ngala Street. This is the largest and only public library within the planning area. Learning institutions within the area privately own other libraries available.

Post office

The Nakuru post office located within Nakuru CBD, along Kenyatta Avenue is the major post office within the planning area. The services offered includes; postal services, banking services, money transfers, bill payment, safe custody services and commission based services among others.

3.9 Conclusion

The analysis of the existing situation reveals varying development challenges and opportunities that need to be taken into account in making planning proposals for the town. Sustainable resource management is encouraged to promote sustainable land use practices, including development control.

In addition, the ever increasing demand for infrastructure, services, consumer products, employment opportunities and housing needs to be met through strategic decision making in order to strike a balance between demand and supply.

PART II: PLAN PROPOSALS

The Integrated Strategic Urban Development Plan consists of interrelated components namely a Structure Plan, Sector plans, a Detailed Plan, Action Area Plans, Planning policies and a Capital Investment Plan.

The Structure Plan provides the overall growth strategy outlining the broad pattern and extend of growth. Through the analysis of constraints and opportunities, the plan systematically aligns the overall urban functions to sustainably meet the diverse needs of the city. This is further accentuated by the Sector Plans which pay special focus to key sectors including identification of priorities. The Detail Plan and the Planning Policies elaborate the Structure and Sector Plans to finer details levels to enhance day to day implementation. The Action Plans focus on priority areas that are of special or greater impact in stimulating growth and transformation of the urban landscape. The Capital Investment Plan finally provides an implementation framework stipulating prioritization, phasing, actors and resource mobilization strategy.

Proposals on each of the components are outlined in chapters' four to seven of this planning report.

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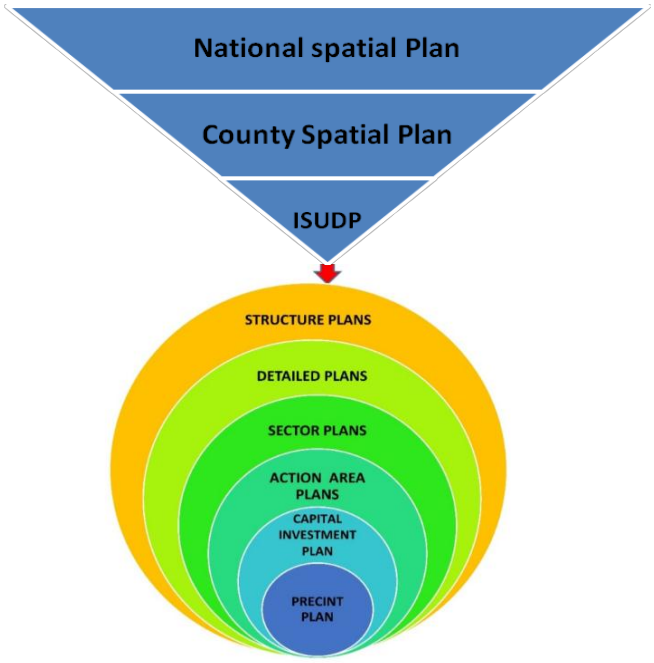


CHAPTER FOUR
STRUCTURE PLAN

The Structure Plan (SP) provides the overall growth strategy that will guide development of the town for the next 20 years. It shows the proposed broad categorization of land uses giving the town a land use structure. It also defines the proposed limits of growth of the town. The SP further sets out the framework for protection of the environment, connectivity of the settlements and all city functions, and the scale, pattern and broad location of developments. The structure plan informs formulation of sector strategies, planning policies and further detailed planning of the town.

The proposal for a new structure plan stemmed from the need to address planning challenges experienced in the growth and development of the town as well as the need to tap into the available resources and opportunities.

4.1 Considerations

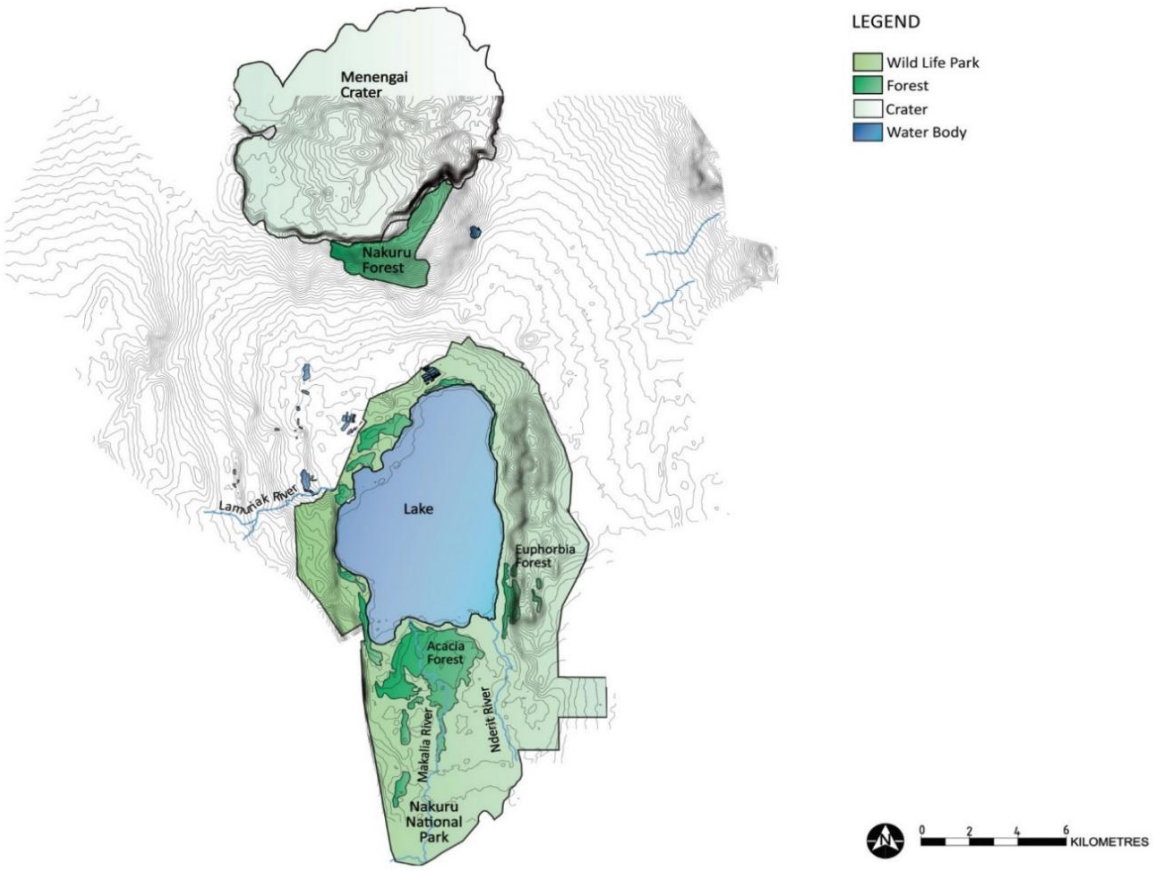
The structure plan has been informed by the growth systems, compact city, smart and eco-friendly city, and transit oriented development city principles. Considerations in formulating the overall growth strategy for the town are as follows;

4.1.1 Growth Systems

The planning area is considered as made of layers of inter-related systems. Future growth of these systems have been shaped by history, geographic setting, natural formations and settlement patterns working together to define the cities future growth. They also form the narrative that can unfold the growth path of the city, either individually or collectively. The systems concept presupposes that the systems are interrelated and connected and hence dependent on one another in defining the city's growth destiny. These systems are briefly described and illustrated herein-under.

i) Natural Environment System

The natural environment system provides the bed rock on which all the other systems are anchored. Critical features of this system include the Menengai crater as well as Lake Nakuru and the engulfing National Park. These are key structuring features which over time have continued to dictate the structure and pattern of growth of the town. The diverse natural terrain also offers different growth opportunities which too influence growth trends within the town. The more ample Bahati plains to the east and the Ngata plains to the far west are likely to witness accelerated growth compared to the more forbidding steeper slopes near the Menengai. The natural system is illustrated in the figure below.



**Note: it is critical that development does not encroach into these environmentally sensitive zones.*

Figure 13: Natural and environment System

The Menengai Crater is to be preserved as;

- A heritage feature generating revenue from tourism
- A resource for the generation of geothermal power
- The northern edge and natural beacon for urban development

The Nakuru Lake National Park on the other hand is to;

- Be preserved as a heritage feature generating revenue from tourism
- Serve as a sanctuary for wildlife animals
- Remain as the southern urban development edge
- Be connected to the urban core through the introduction of green infrastructure
- Be enhanced and celebrated as a place maker and characterized by making access routes and points into the national park and the Lake District legible and distinct places.

ii) Movement System

This system is expected to greatly impact on the overall growth pattern. It will mainly be influenced by the Standard Gauge Railway (SGR), A104 the B4 (Nakuru–Sigor) and B5 (Nyeri-Nyahururu) corridors, all of which are shown below.

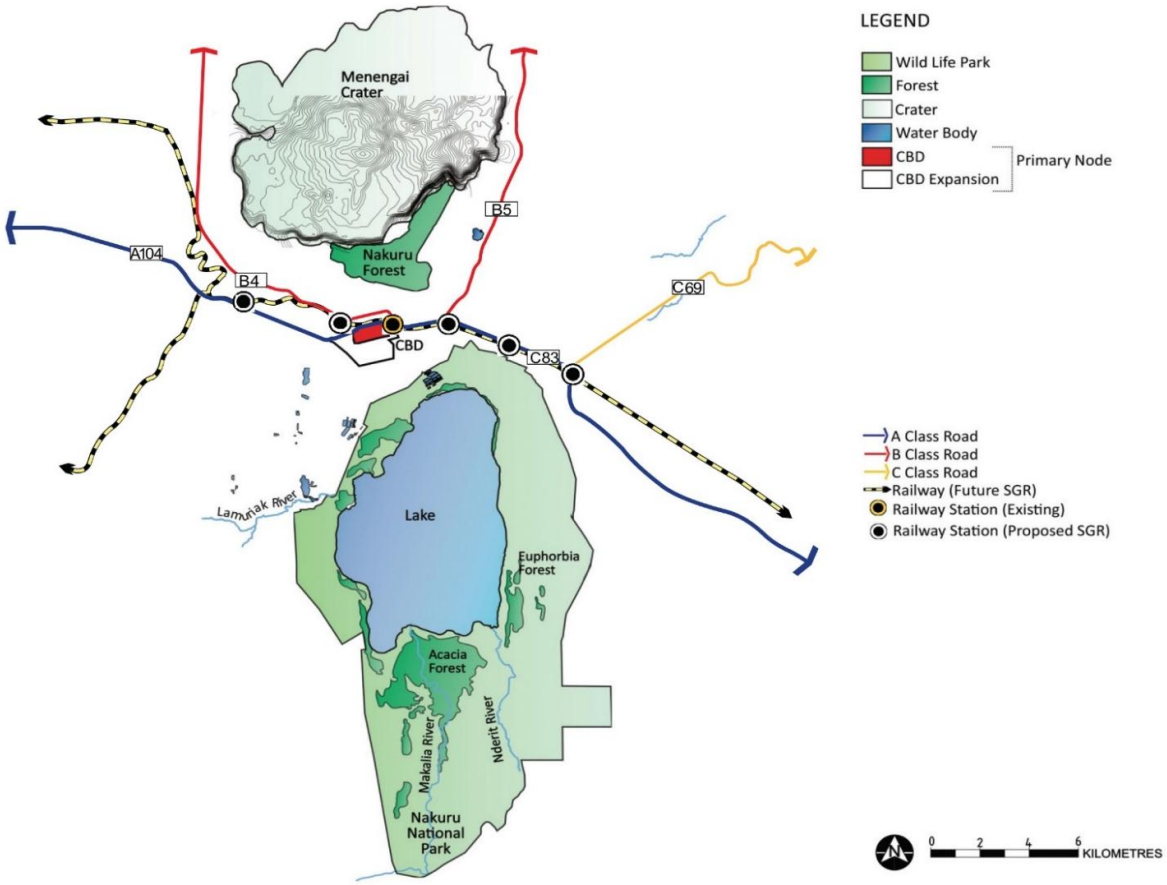


Figure 14: Movement and Street System

The SGR will be utilised in the following ways:

- City growth structure and movement backbone
- A means of accelerating east west regional connectivity
- Addition of rail stations to service existing nodes and to promote future nodal development

The A104 interlinked with the B4 and B5 will

- Enhance East-west and north south movement routes linking into the CBD
  - Provide a balanced and well-structured public transport systems
  - Promote the upgrading of the network to improve safety and the efficiency of vehicular movement.

The east west movement corridor with the addition of rail stations will structure future development with the CBD remaining as the primary convergence point for movement of all forms of public transport.

iii) Residential System

The movement structure and position of the CBD directly informs the structuring and collective consolidation of neighbourhoods into an Urban Core. The creation of an urban core with the CBD as a primary node provides the opportunity for the densification and

diversification of land use within the surrounding neighbourhoods forming a compact, multifunctional core supported by integrated transport facilities and strategically located to improve the efficiency of the urban system. The existing industrial area which appends itself to the CBD also forms part of the consolidated urban core. The industrial area along with the CBD will encourage movement towards the urban core due to the existence of employment and business opportunities. As such, the consolidation of the urban core will allow strategic and balanced densification within the centrally located neighbourhoods and ultimately providing a platform for managed growth.

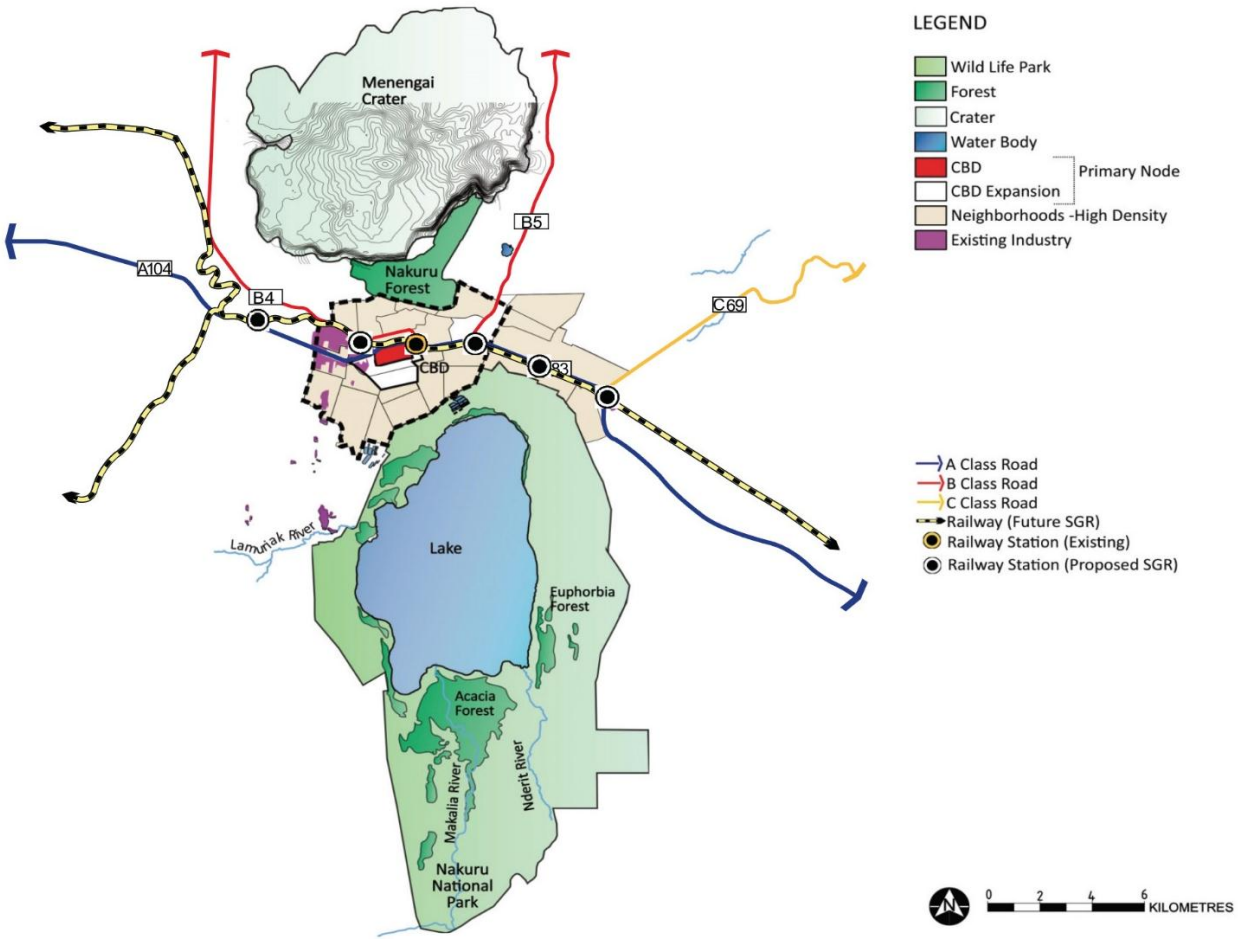


Figure 15: Residential/ Neighborhood System

iv. Industrial System

While the consolidation of the urban core is being proposed to promote density closer to the CBD, the east west development arc has potential to be extended. The means by which this is to be achieved relies on the proposal of industrial hubs on either side of the east west movement system towards the outskirts of the planning area (away from natural elements)

an agro-industry hub to the west providing support for processing of crops farmed within the planning area while on the other hand the development of a techno-industry hub to the east of the planning area adjacent to the existing airport. The further development of industrial hubs will not only provide added employment, but will also generate social benefit to the area. In applying the concept of smart city growth, these industrial nodes can link their function to KITI which is currently an educational institute and therefore has the potential to become a research base for the industry.

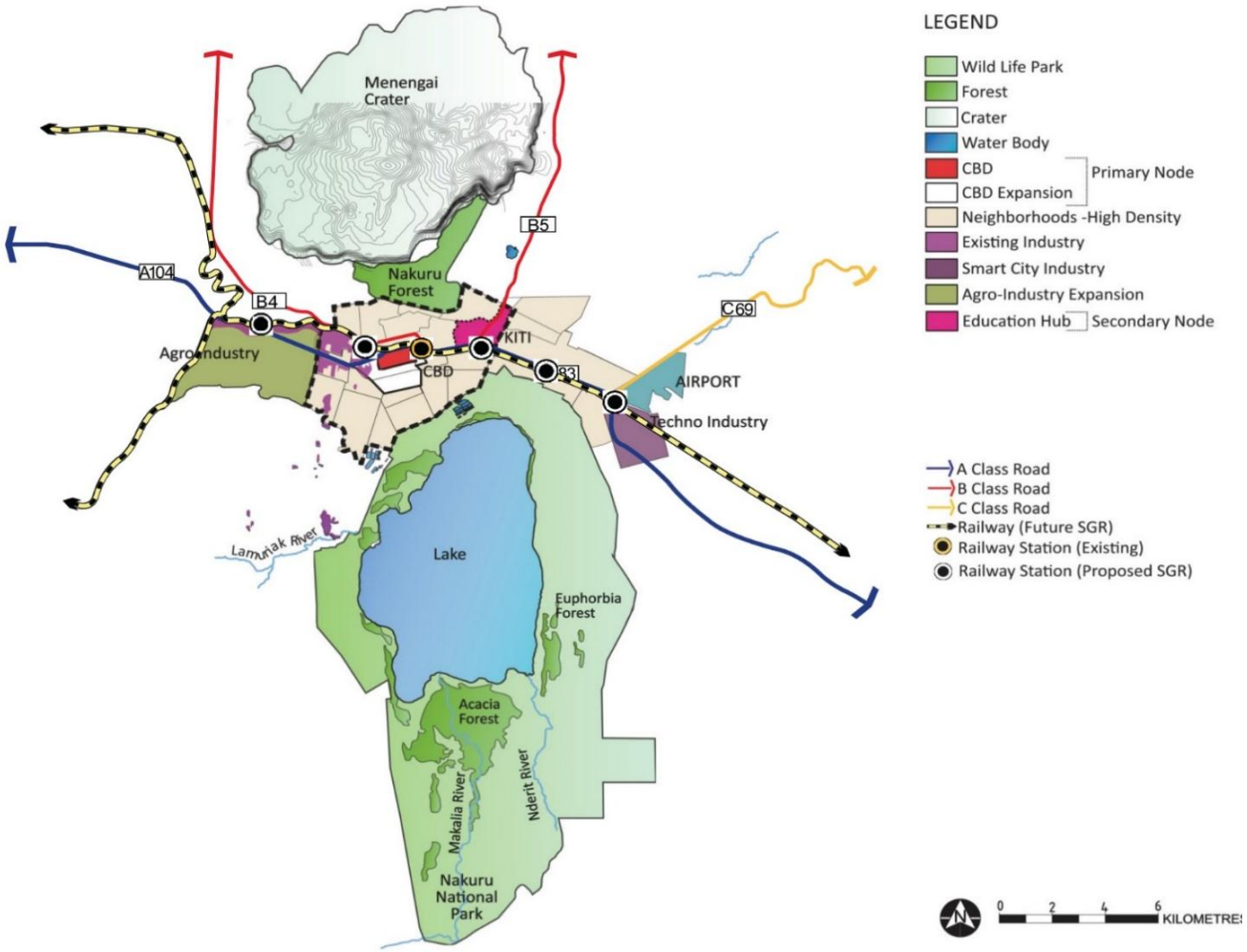


Figure 16: Commerce and Market System

v. Urban Nodes System

The series of service nodes lying along the northern loop has the potential to provide support to the overall urban system. By extending and connecting the various nodes to form a coherent urban system, the level of accessibility is increased for users of the area. While the service nodes in the north perform a finer grained market function, the TOD nodes lying along the east west development arc and movement system are to be developed as mixed used nodes.

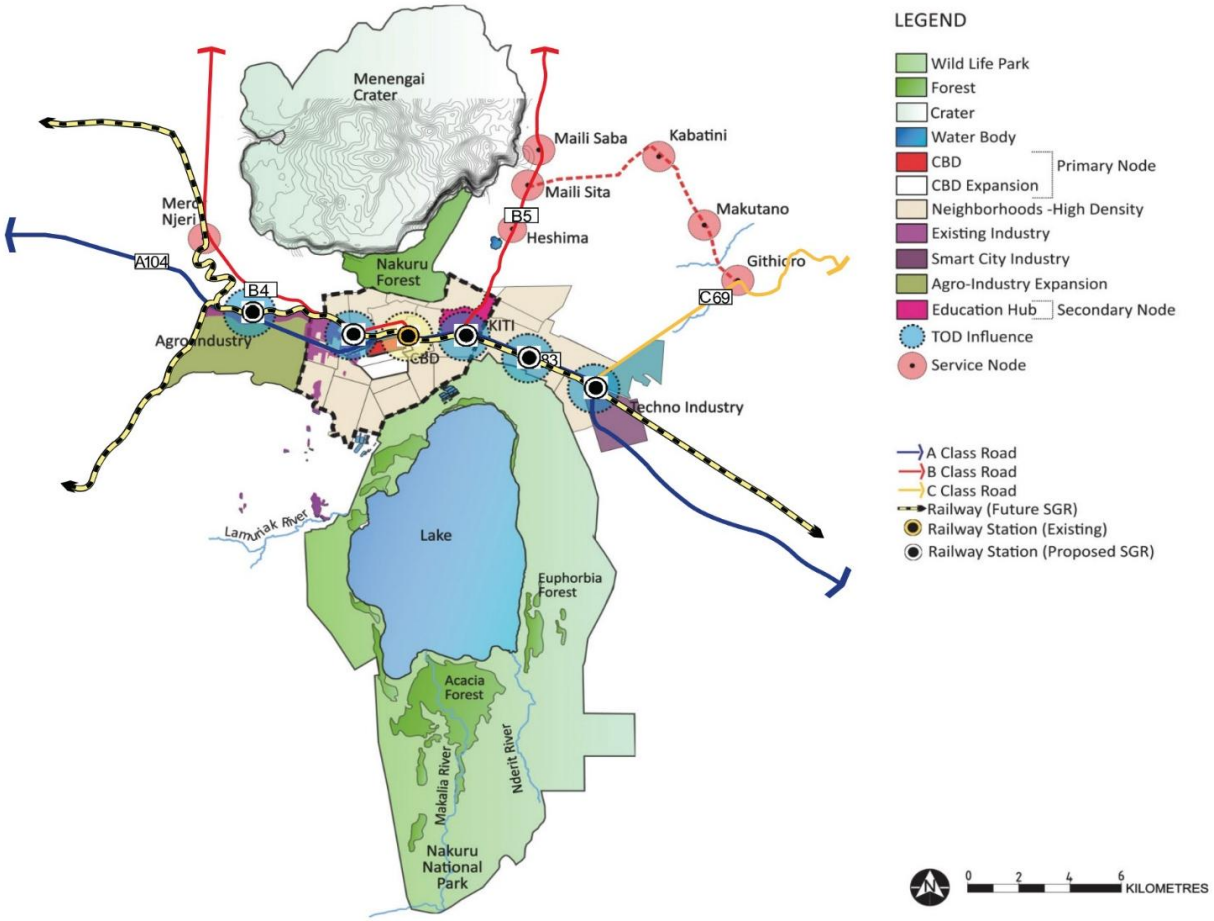


Figure 17: Urban Network and TOD

Vi. Integration of the Systems

The integrated model approach proposes multi-layered system building from the existing structure while directing growth towards a more sustainable city form. The hierarchy of nodes established within the urban area provides support for the CBD. Furthermore, the movement systems are to be reinforced to encourage the consolidation of the proposed pattern.

The proposed strategy also takes into account the need to increase the opportunities for job creation and skills development which are integral and further inform the formulation of the economic strategy and the capital investment plan.

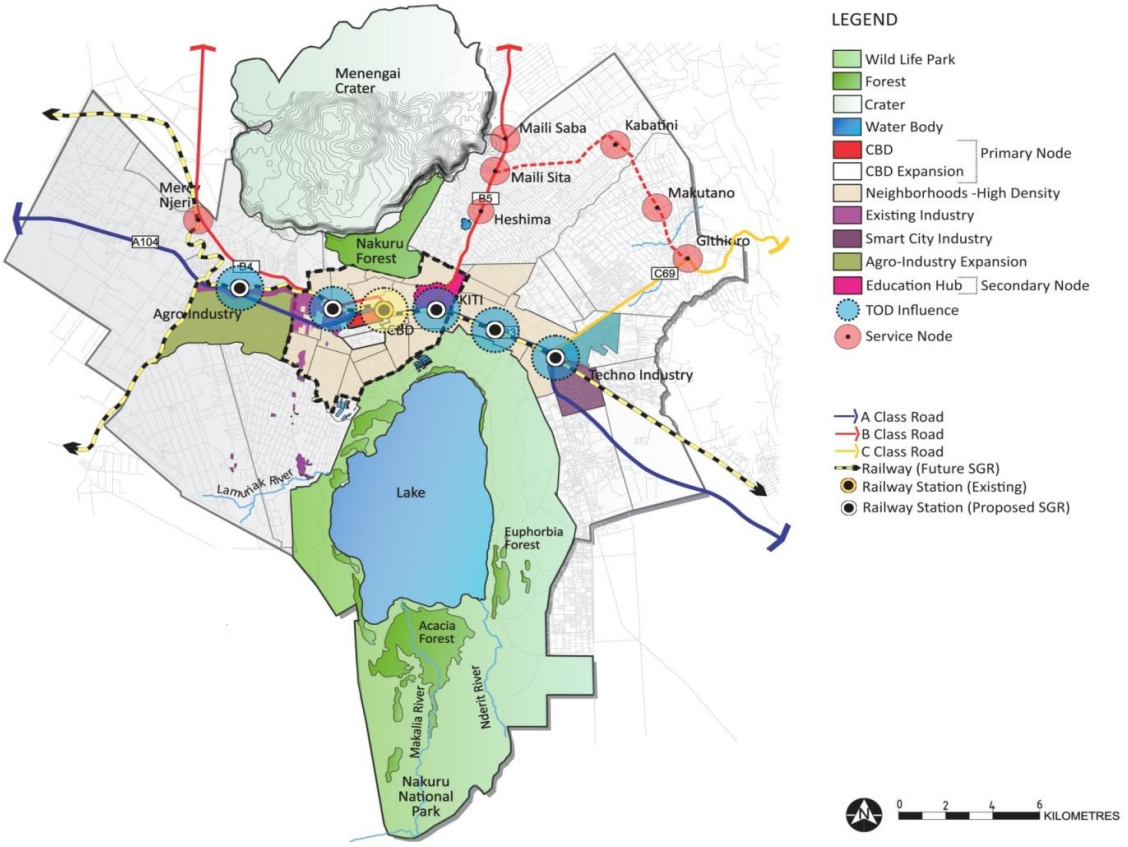


Figure 18: Consolidated Natural and Urban System

4.1.2 Compact City

With the rapidly growing urban population worldwide, well located serviced or developable land is an immensely valuable resource that should not be underutilised or mismanaged, equally important is the preservation of fertile agricultural land providing food and economic support to urban areas.

The call for a more compact and well managed urban structure is the dominant discourse put forward by development organisations looking at the future of cities and towns. To counter act urban sprawl it is necessary to put in place controls and incentives which do not necessarily have to equate to economic benefits but have to do with providing a better quality of life. This aim is at the core of the proposals and strategies formulated for the planning area. Design for Compact cities emphasis on the importance of achieving good urban planning including, public space layout, street patterns, block typology, plot typology, open spaces and finally protection of the environment.

Compact cities provide opportunities for;

- Improved movement network and public transport
- Mixed Use
- Efficient Urban Form and Buildings
- Quality Public environment
- Public Facilities and services
- Preservation of natural environment systems

Figure below indicates the principles considered in the formulation of the development framework and planning strategy, some of which will require further refinement for specific application to existing and future development.

URBAN SUSTAINABILITY PRINCIPLES	Social	Infrastructure	Public Space / Pedestrian	Movement Economic	Environmental / Ecological
CROSS-CUTTING PRINCIPLES – PART 1					
1. Movement Network & Public Transport					
• Movement system: A legible street network, with good connections and access (the grid is the most legible type); accommodating a variety of movement types-pedestrian (sidewalk widths), cycling (non-motorised transport), vehicular and public transport.		✓	✓	✓	
• The provision of public transport services & facilities.	✓	✓	✓	✓	✓
• Establishment of a street grid that promotes connectivity and access; linking the local centres.	✓	✓	✓	✓	✓
2. Mixed Use					
• Mixed land use activities; fine grained (expansive / large land uses at the edge), with an urban activity mix: residential, commercial & recreational; includes trading and markets.	✓	✓		✓	
• (Mixed use & residential) Buildings with a range of unit sizes, to provide for a variety of household sizes (for extended families), designed to human scale (3 -4 storey walk-up?).	✓	✓		✓	✓
3. Urban Form & Buildings					
• A compact urban form; density range of 200-400 p/ha (40-80 du/ha) & 50% of built area.	✓	✓		✓	✓
• Sustainable / robust buildings; allowing for incremental development & expansion.	✓	✓	✓	✓	
CROSS-CUTTING PRINCIPLES – PART 2					
4. Quality Public Environment					
• Adequate space for streets & public space: 30-35% streets; 10-15% open space; 50% built area.	✓	✓	✓	✓	✓
• Provision of a variety of a variety of urban spaces and recreation areas- play spaces, parks, sport facilities, squares, natural areas & habitats, rivers & wetlands.	✓	✓	✓		✓
• Active streets: Buildings face the streets with active ground floor uses; this also provides surveillance on to public spaces, streets and parking areas.		✓	✓	✓	
• Development of a quality streetscape; which is tree lined (landscaped) with wide pedestrian sidewalks and cycling lanes.		✓	✓		
5. Public Facilities & Services					
• Provision of community facilities and social services.	✓	✓		✓	
• Urban management: Provision of regular public services to effect urban management and maintenance.	✓	✓	✓	✓	✓

4.1.3 Smart and Eco-Friendly Green City

In addition to qualitative and performance driven principles in the age of technological advancement it is important to reflect on the role that technology can play in facilitating growth as well as in improving living conditions. A smart city uses digital technologies or Information and Communication Technology (ICT) to enhance quality and performance of urban services, to reduce costs and resource consumption, and to engage more effectively and actively with its citizens. This is critically important, taking into account that the provision

of adequate and appropriate municipal services is paramount to the creation of sustainable environments, thus the use and introduction of alternative technologies serves to respond in part to this objective.

The second and interrelated concept refers to the need to anchor development on eco-friendly principles, to build cities in balance with nature, protecting and enhancing unique natural features. In the case of Nakuru its distinct natural elements are of such significance in scale and ecological function that it makes them not only worthy of conservation but also as key economic drivers in terms of tourism. The adoption of smart technologies and eco-friendly green city principles are underpinned by the need to structure cities which are:

- Compact in extent (with emphasis on convenient walking distances)
- Complex in activity pattern (mixed-use, intense, dense)
- Structured on social integration (spatially inclusive and democratic)
- Growth of local economies (integration of dual logic economies)
- Public transport based (Mass transport and feeder systems)
- Reducing the need to commute (NMT as a default movement system)
- Incorporation of ecology and bio-diversity
- Energy efficiency (through spatial pattern/ waste-to-energy production)
- Smart cities and smart infrastructure
- Next generation logistics hubs
- Appropriate service infrastructure
- Urban agriculture (as an integral part of the urban economy)

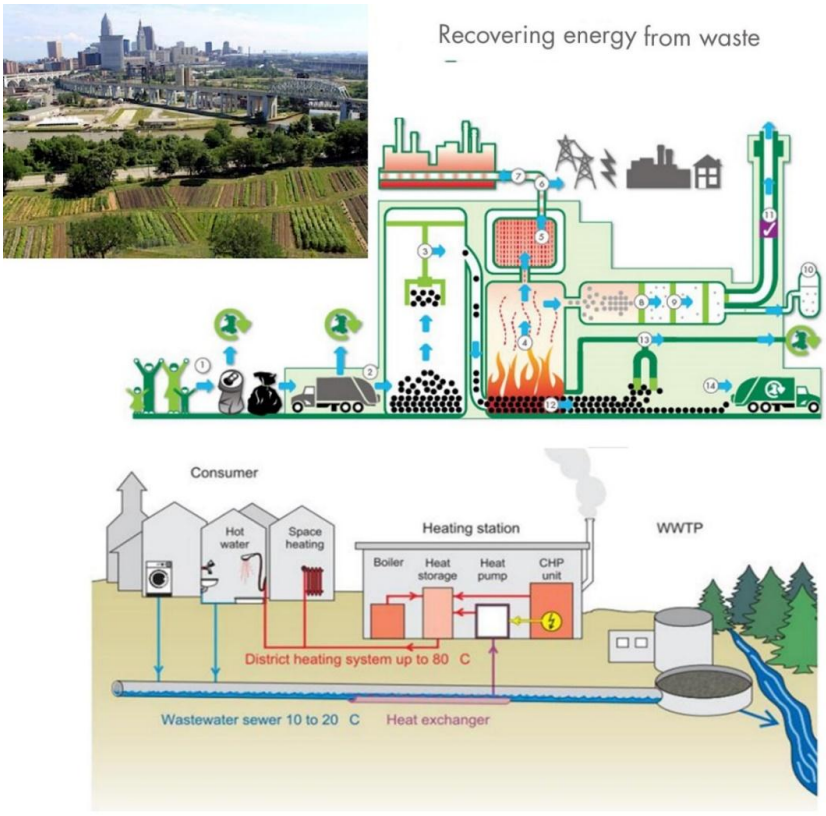


Figure 19: Smart Cities and Energy Efficiency

4.1.4 Transit Oriented Development

In the context of expanding cities due to the growth of suburbia, increased numbers of cars causing pollution and congestion and having a negative impact on the environment, the economy and quality of life, the concept of Transport Oriented Developments (TOD) which promote walkable lifestyles away from traffic seems to be a relevant and a worthy concept to follow. The figure below illustrates the conditions that could be created by promoting the consolidation of interconnected mixed use nodes served by well integrated public transport services.

Figure 20: Connected urban system comprised of Transport nodes along a transport corridor

TOD Components

TOD promotes the consolidation of high density and mixed use development in close proximity to integrated transportation hubs. The intention is to intensify and diversify land uses within a 10 minutes walking distance (approximately 800 meters radius) from integrated transport stations. The accessibility lattice should include bicycles, scooters and all relevant forms of transport used in a particular location. Figure below shows the type of development that could be encouraged with TOD areas.

Figure 21: Typical example of Mixed use Transport Node

Infrastructure & Facilities System

Within the TOD's further services needs to be incorporated include community / Social facilities, Health & Welfare services, Safety & Emergency services, Water, Storm water, Electricity, Roads and Sewerage services.

4.1.5 Phased Growth

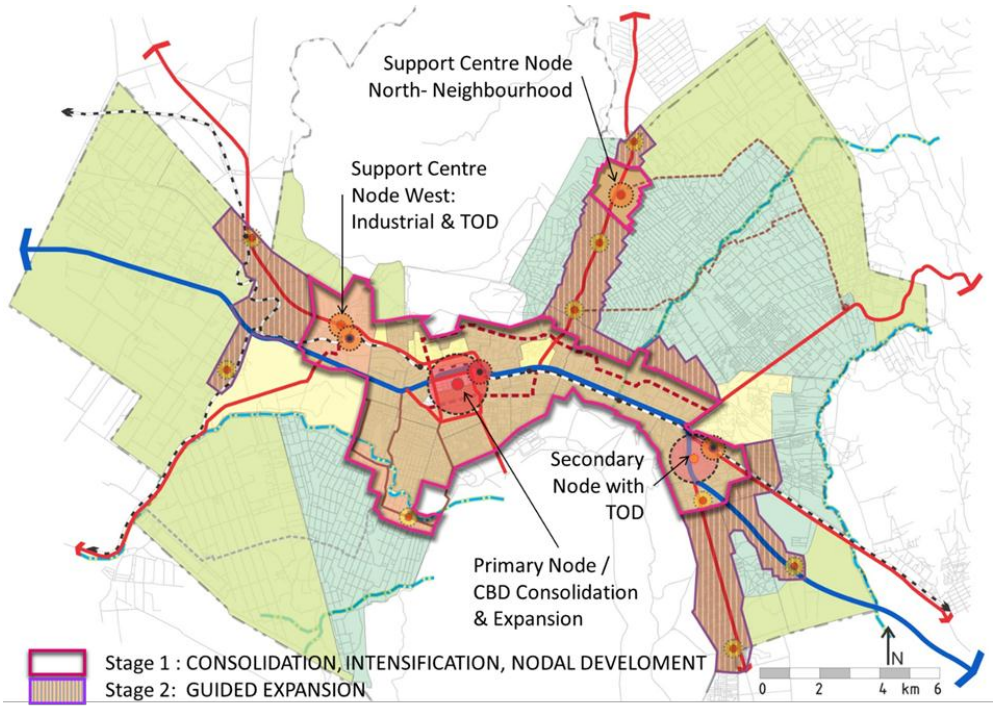


Figure 22: Phased Managed Growth

4.1.6 Growth Patterns

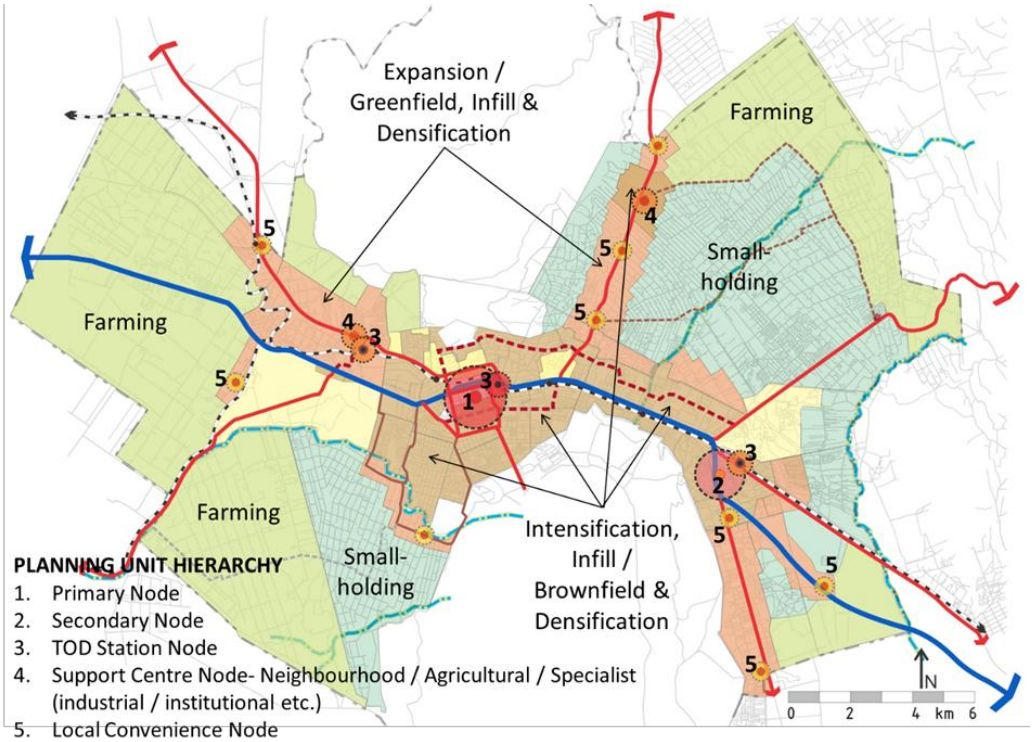


Figure 23: 20 year growth strategy

4.2 The comprehensive Structure Plan

Having considered the various growth concepts and examined various options, a comprehensive growth structure is proposed. This covers the entire planning area as shown in figure 24. The proposal was validated during the Draft proposal stakeholder's workshop. Further improvements were undertaken on the structure plan to incorporate additional technical comments.

The proposed structure helps in controlling urban sprawl by compacting developments within the already developed areas through densification and urban renewal. The model distributes key functions and land uses within the planning area and also encourages growth of emerging secondary nodes as they harbour new investment and service potentials. This reduces overreliance on the core (CBD) thereby mitigating congestion and promoting evenly distributed growth of the town. For effectiveness however, close monitoring of the proposed development control standards is required.

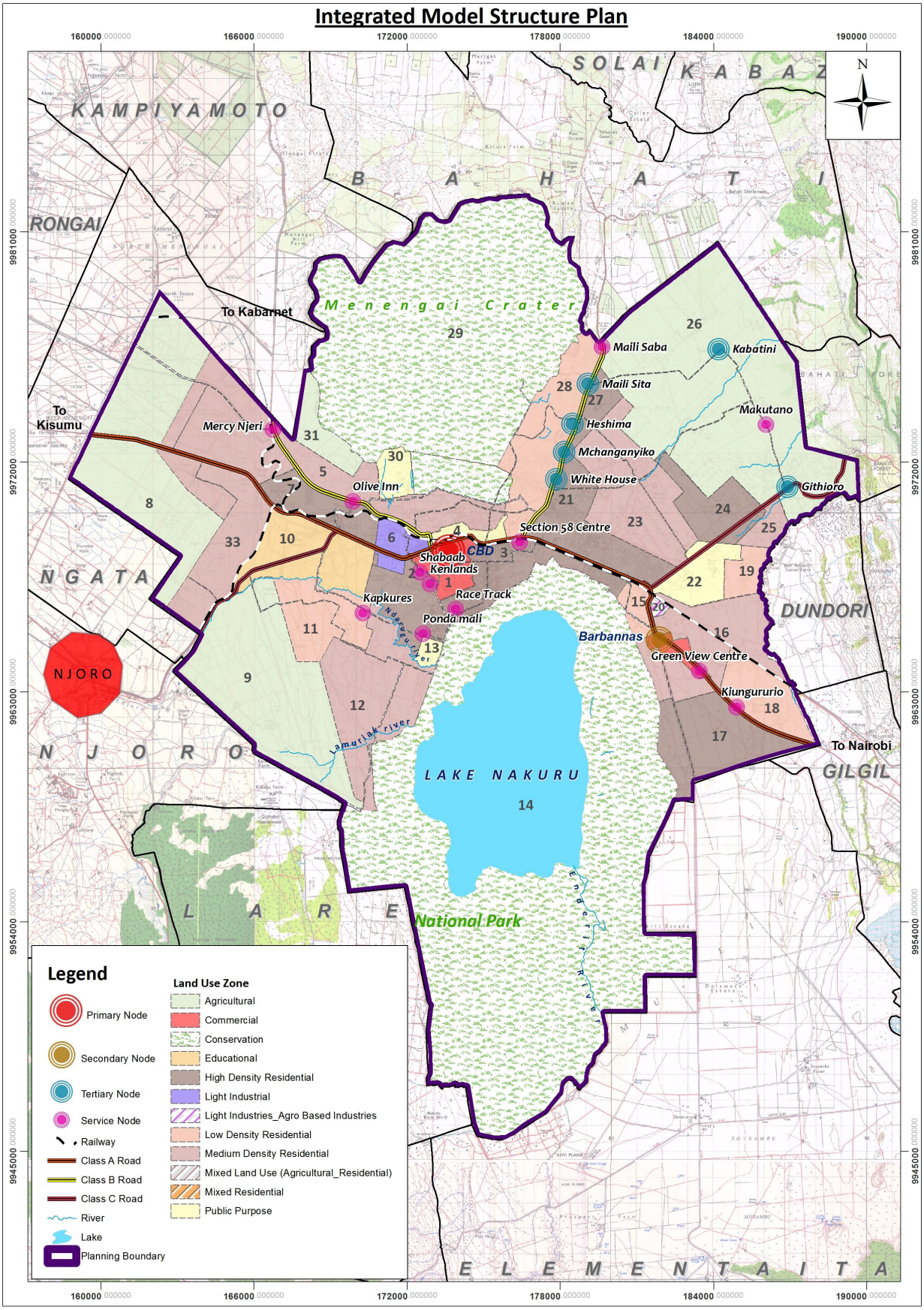


Figure 24: Structure Plan

The proposed growth strategy makes the following key proposals;

CBD

Together with the public facility (Afraha Stadium), the residential areas in between the new CBD and Freehold area are proposed to be maintained as they are to provide breaks for the commercial activities between the New CBD and Freehold. Kanu Street, which has in the past been perceived as the towns secondary commercial centre is expected to form the southern edge of the extended CBD interlinked with a series of north- south street movement and intervening public spaces.

Commercial Nodes

Besides the CBD, the commercial nodes are expected to be centres of growth. The town proposed as a secondary growth node is the Barnabas. It is at the position previously occupied by Kanu Street. The node covers about 1km^2 and is marked as Zone 32. It is expected to develop as a transit oriented node and as a as a gateway node to Nakuru.

The town's emerging tertiary nodes are Maili sita, Maili Saba, Mchanganyiko, Heshima, Olive Inn, Mercy Njeri, Kabatini, Githioro and Kiungururio centres.

Housing

A total area of 149 km^2 of land has been reserved for housing. This represents 24.3% of the total planning area but increases to 90 % of the urban land. It is the largest portion of land within the urbanized area dedicated to a single use. This emphasis on residential development is largely driven by the need to sustainably house the ever growing population of the town. Housing has been further categorised into high, medium and low density housing.

High Density Housing

High density housing is expected to dominate the housing sector. This will be established in five major areas earmarked as zones 2, 3, 7, 17, 21, 24 and 27 accounting for 9.6% of the planning area. The strategy here is densification of existing residential neighbourhoods. They are located close to the CBD, commercial nodes, the industrial areas and the major transportation corridors thus creating opportunity for lower cost of services to the low income residents. The majority of the people are expected to live here and so the proposal is deemed beneficial to the majority.

Zone 2 covers the current Githima, Kaptembwo, Ronda, Mwariki, Langa Langa, Racetrack, Lakeview, Flamingo, Manyani, and Bondeni; all located south of CBD. Part of the zone also harbours areas that currently house the institutional housing that were constructed in the early 1970s. These need to be redeveloped. Githima, Kaptembwo and Ronda are major informal settlements which need to be upgraded.

Zone 17 covers an area of 13km^2. It encompasses the pipeline-Mbaruk area which is located along the Elmentaita road and is adjacent to Barnabas.

Zone 21 is located in Nakuru East, covering areas of Kiundu, Kiratina, Nakuru Blankets, White house and Mchanganyiko. The zone measures about 25 km^2 and has been broadly zoned as a high density residential area, even though within the zone there some small

pockets of lower densities. Zone 24 is located along Dundori road stretching up to Githioro node, in Umoja area.

Zone 27 stretches along Solai road. It covers parcels that run along the road, stretching from Heshima centre to Maili Sita, a total of 3 km^2. The zone has been proposed to be developed as a high density residential zone, to accommodate the large numbers of persons settling on the areas surrounding the centres and within short distance of the transport corridor thus absorbing most of the linear development along the road.

Medium Density housing

The second major category of housing is medium density housing which is proposed to dominate in six major zones. These include zones 3, 5, 7 12, 16, 23 and 33. Zone 3 is located east of the CBD, covering Kabachia, Section 58 and Naka estates. It has been earmarked for medium density residential development. The zone is bound by Mburu Gichua road, Landhies road, up to the border with Free Area. The northern side of the zone runs along Oginga Odinga Street. The zone has an area of about of 2 km^2.

The other within this category is zone 5. It covers Milimani, London and Kiamunyi areas which are located north of the CBD and along Nakuru-Kabarak road. It measures an approximate area of 11 km^2

Another medium density area is Zone 7 covering 6 km^2 located between Nakuru-Kabarak road and Nakuru-Eldoret road. It covers the areas of Solio and Egerton workers. Even though not currently densely settled, the area has high potential for investment in residential developments.

Areas of Barut East (17 $km^{2)}$, Mwariki B (2 km^2) including Modern Farm, Kiamunyeki section of Nyonjoro area(2km^2) and Mang'u and sections of Ngata have also been designated for medium density residential. This zone covers a small section Nyonjoro area, along Dundori road and measures an approximate area of 2 km^2. The zone is located towards the western edge of the planning area.

Zone 16 encompasses areas north and east of Barnabas. It covers an area of 15 km^2. The zone is broadly earmarked for medium density residential development although there are some pockets proposed for high density residential development around the commercial node.

Low Density Housing

Five zones are proposed for low density housing and they include zones 11, 15, 18, 19 and 28. They cover an area of 34 Km^2. One of the areas included is Milimani which is expected to generally retain its current character. Existing conditions and the prevailing slope characteristics favour retention of the current state. Also included is Zone 28 which covers sections of the adjacent Kirima, located on the upper slopes of the Menengai crater

Future low density housing is expected to dominate the eastern edge of the planning area marked as zone 18. This is an expansive area located off the Nairobi –Nakuru road running along and sloping towards the Mereroni River.

Public spaces

Public facilities are not expected to dominate in any major zones since they will exist within the residential and commercial areas. The most discernible zone is Zone 4 located on the immediate north of the CBD. It runs along Nakuru-Eldoret road and covers the Railway yard, the show ground, Provincial General Hospital, Kenya Medical Training College (KMTC), Nakuru North cemetery, State House Nakuru and both Nakuru High and Nakuru Girls schools. It extends up to Solai road covering an area of 2km^2.

The other is Zone 22 which is located along the Ndundori road, covers an area of 5 km^2 and encompasses the Lanet Military barracks. The zone has been earmarked for public purposes since it is expected to retain same use.

Zone 30 has also been designated for public purpose use since the land is occupied by the Nakuru Prisons. Owing to its location next to Menengai and the resultant seclusion from other busy areas, the land is suitable for its current use.

Industrial Development

The main industrial development strategy is to protect the existing industrial land from conversions to other land uses. More often, industrial activities tend to conflict with other users hence the need to protect the available land. There is need to rejuvenate the industrial area by redeveloping some of the sites. There is also need to revitalize the infrastructure, particularly the railway line. The proposed SGR is expected to rejuvenate industrial development by lowering the cost of transportation. The unused sidings are therefore expected to come to life soon after the SGR reaches Nakuru.

Zone 6, which is the existing Nakuru industrial zone, has been proposed to retain the same use. It area covers an area of 3 km^2 and borders the CBD from West road.

Industrial development is also proposed in Zone 20, which is situated between the railway line and Nakuru-Nairobi road, at the Lanet Junction. This zone measures about 1 km^2 and is adjacent to Barnabas node. Its location is deemed strategic for economic inter-relationships between the zone and the node.

Other pockets of existing industrial land scattered in various parts of the town are also to be retained.

The second key strategy is the establishment of Industrial Parks preferably as Special economic Zones. Such parks are expected to be spearheaded by private developments and could easily increase the land available for industrial development. The county government is expected to purchase land for industrial devolvement. Their location and layout design are expected to be subjected to a rigorous development application process to ensure compliance to regulations and to minimise conflicts with other users. The proposed GDC industrial Park at the Menengai is one such project that is likely to rejuvenate industrial development in Nakuru once it becomes operational.

Finally, through the various development application processes such as subdivisions and change of use, more land is likely to be availed for industrial development. Such applications are expected in the peri urban areas where significantly larger parcels of land still remain. This is to be encouraged as it will help distribute workplaces thus helping to decongest the urban core. The tertiary/service industrial sector is particularly expected to establish projects through such applications.

Agricultural areas

The planning area encompassed areas of significant agricultural activity. The town has been expanding outwards into agricultural land hence the need to set limits for urban growth. Most agricultural land is lost through creation of residential plots. For that reason, some parts are proposed to remain predominantly agricultural to avoid unwarranted and speculative subdivisions of high potential agricultural land. Furthermore, the land earmarked for residential development is adequate to cater for the expected population without having to require further loss of agricultural. This also calls for simultaneous densification of existing residential areas.

Five major areas have been identified for agricultural use. These include covers **zones 8, 9, 19, 26 and 31** covering and area of 143 Km^2.

Along the North Western boundary of the planning area is zone 8 that partly covers Mangu and Ngata areas. The zone has been earmarked for agricultural use since it is characterised by deep, fertile loam soils favourable for crop growth. The area also experiences highly favourable climatic conditions supporting agriculture. It measures about 25 Km^2. It has a peripheral location which should be protected from urban sprawl and be preserved for agriculture.

Zone 9 measures 60 km^2 and covers sections of Ngata and the Barut west area, marking the western periphery of the town. This part of the town enjoys optimal climatic and soil conditions for growth of both food and cash crops.

Zone 26 measuring an area of 73 km^2 covers parts of Wanyororo and Kabatini, where agriculture is practised in large scale. The zone also marks the North Eastern edge of the planning area.

Zone 19, covering 3 km^2, is located on the eastern periphery. Referred to as Ndege farm, it buffers the Mereroni River, the railway and the Military barracks at Lanet.

The other agricultural zone is situated on the South Western part of the crater covering 4 km^2. It has large scale cash crop farming. The proposal is based on the premise that agricultural use is compatible with the adjacent conservation and medium density residential uses.

Educational

Zone 10 harbours the Rift-Valley Institute of Science and Technology (RVIST) farm, whose land area is 11 km^2. Given that it is potentially geologically unstable, it has in the past been used for educational and scientific research purposes. The zone has thus been earmarked for educational purposes which combine well with agricultural training. .

It is also proposed that the existing educational land should be protected. Furthermore, in order to accommodate more pupils, the educational land should be densified further by encouraging high rise school premises.

On the other hand, new facilities are to be located within residential neighbourhoods. This will help reduce the walking distance to schools. The educational policy formulated as part of the ISUDP process will enhance delivery of educational land by setting appropriate minimum land and location requirements.

Public utilities

Public utilities majorly include infrastructural facilities such as water, sewerage and solid waste management facilities. About 1 km^2 of land in Mwariki and Manyani has ongoing sewer works. The area is proposed to remain as a public utility area given the importance of such facilities.

Conservation

As an environment friendly city, Nakuru requires conservation of some of the key natural resources. These include the Lake, the crater and the Menengai forest. Conservation areas are represented by zones 14 and 29.

Zone 14 covers Lake Nakuru and the adjacent Lake Nakuru national park; a zone whose total area is 190 km^2. This zone marks the southern boundary of the planning area. Lake Nakuru was declared a Ramsar site in 1991 and hence the need to protect and conserve the lake. Furthermore, the lake is a major tourist attraction site, renown world-wide for its Flamingos. The park is equally a recreation area and is a famous tourist attraction as it hosts various wildlife species. As earlier discussed, the lake and the park are key structural elements, limiting growth of the town southwards.

Zone 29 encompasses the Menengai crater and the adjacent crater forest, an area of 87 km^2. It is considered an environmentally fragile area and is hence gazetted as a conservation area. This ISUDP proposes that it remains as such. Measures and strategies for its protection and conservation have also been proposed.

Table 7 summarizes the proposed structure plan,

Table 7: Summary of the Structure plan

LAND USE	(AREAS (KM^2)	Zone	%	Neighbourhoods/nodes
HIGH DENSITY RESIDENTIAL	56	2,3,7,17,21,24,27	9.1	Parts of Kiamunyi, Githima, Kaptembwo Rhoda, Mwariki A, Kivumbini, Naka, Praire, Teachers, & Umoja
LOW DENSITY RESIDENTIAL	34	11,15,18,19,28	5.5	Kirima/Kiamaina, Pipeline, Ndege, Nyonjoro, Barut West
MEDIUM DENSITY RESIDENTIAL	69	5,12,16,23,25,33	11.3	Parts of Mangu ,Ngata, Barut East Kiamunyi, London, show ground & Muguga
AGRICULTURAL	143	8,9,26,31	23.3	Parts of, Ngata, Mangu, Kabatini, Wanyororo& Murunyu
COMMERCIAL	6	1,32	1	Areas around CBD, Afraha, Freehold and Barnabas
CONSERVATION	280	14,29	45.6	Menengai crater, Menengai Forest, Lake Nakuru & Park
EDUCATIONAL	11	10	1.8	Around Ngata area
INDUSTRIAL	4	6,20	0.7	Industrial area and parts of Muguga
PUBLIC PURPOSE	10	4,13,22,30	1.6	London, Railway, Area near Mwariki A

Figure 26 overleaf shows the urban limits based on the structure plan land use summary

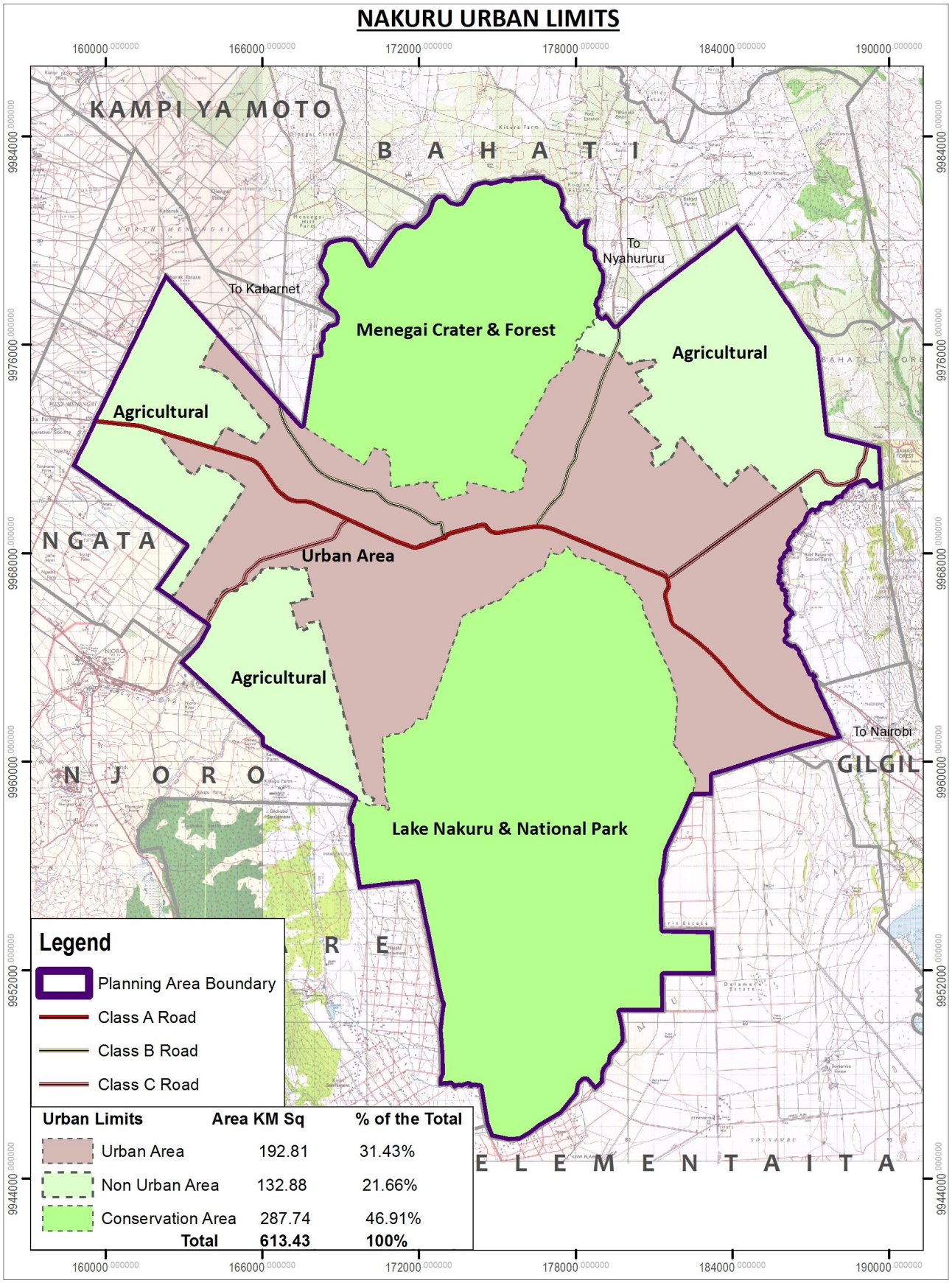


Figure 25: Urban Limits

4.3 Conclusion

The structure plan proposals made above set the foundation on which the sector plans and the detailed land use plan proposals made in the next chapters are based. It summarizes the proposed Nakuru town structure and form. The proposed town structure model, apart from reducing overdependence on urban core, also strategically moulds the town into a form that is easy to service. In addition, it encourages linkages of town functions and areas to ensure sustainable and integrated growth.

CHAPTER FIVE

DETAILED LAND USE PLAN

The detailed land use plan elaborates on the proposed land use zones proposed in the structure plan. It details out the density, minimum plot size, permitted developments, plot ratio, plot coverage and other relevant details per zone. This helps to address the inadequate development regulations that have been working against the town for a long time. No single estate in the town has been developed under the guidance of any land use regulations. The zoning plans existent for many areas only specify the land uses designated for different zones but there are no proposals for allowable development densities. In fact there are some areas which have no such standards at all.

This is a factor that has led to land use conflicts some of which have caused battles in courts of law. Conflicting land use has also led to loss of land values, privacy, social conflicts and spatial disorder. To address this problem, the detailed planning process has identified distinct land use zones and provided development regulations for each.

The proposals focus in more detail on the following components and interventions:

- Balanced development of the local/precinct catering for a diversity of activities and functions, built on environmental sustainability and community safety.
- The street environment- its design and character, accompanying functions, and associated linkages and connections.
- The built form and appropriate building typologies- directing the physical development of the urban environment that is human-scaled, compact, public space orientated, walkable and convenient.
- The public spaces and markets – the focus is laid on developing a quality public environment, improving their performance, providing a variety of spaces and optimising the use of public land.
- Public transport related multi-functional and integrated land use activities developing a working synergy.
- Mixed use activities promoting vertical and horizontal mix of land use activities, with higher residential facilities and supporting infrastructure and public facilities.
- Environmental sustainability and smart technologies which incorporates the natural systems as well as the utilisation of information and communication technology to improve the performance and quality of urban services and consumption, to reduce, reuse and recycle.

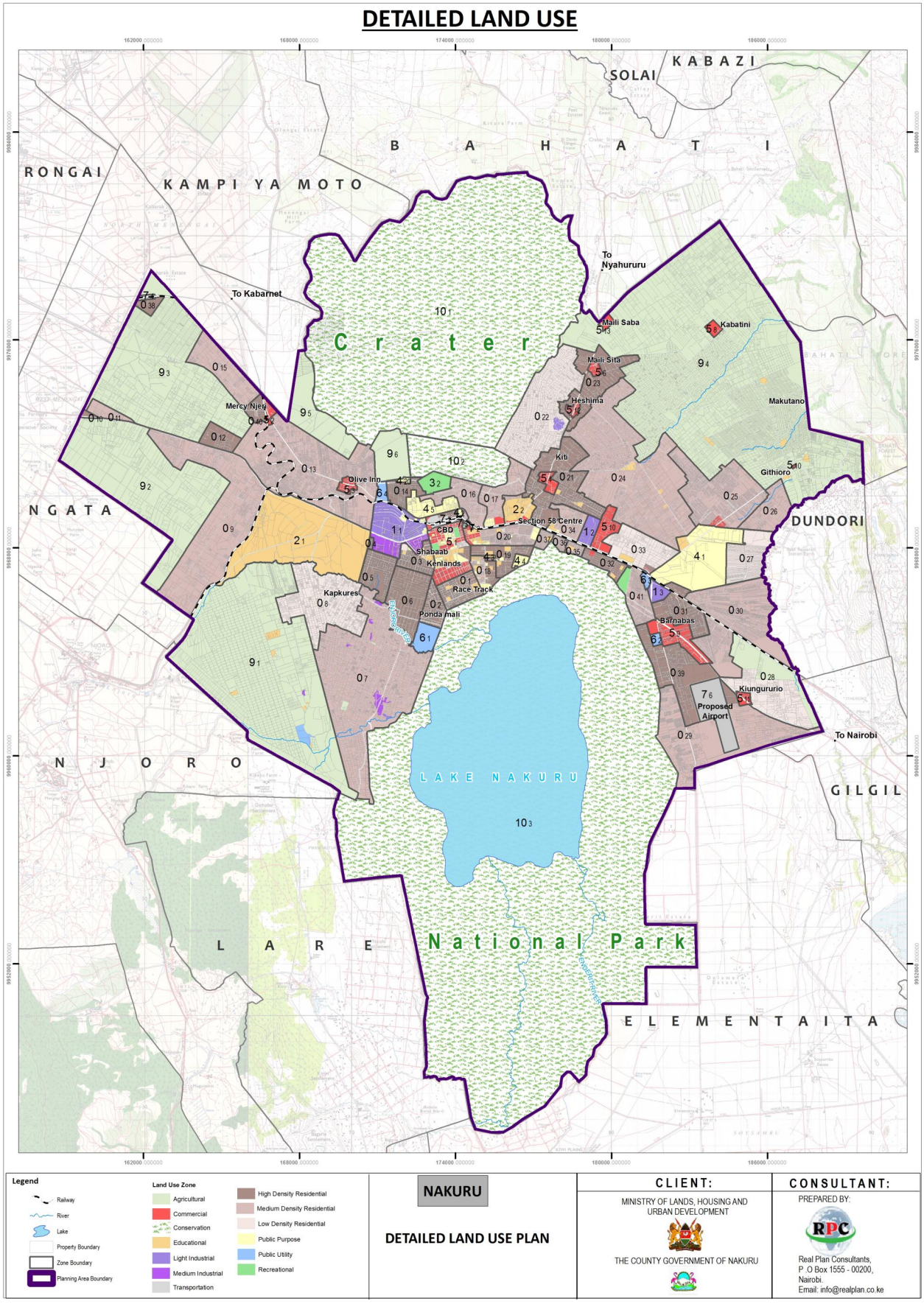


Figure 26: Detailed Land Use Plan

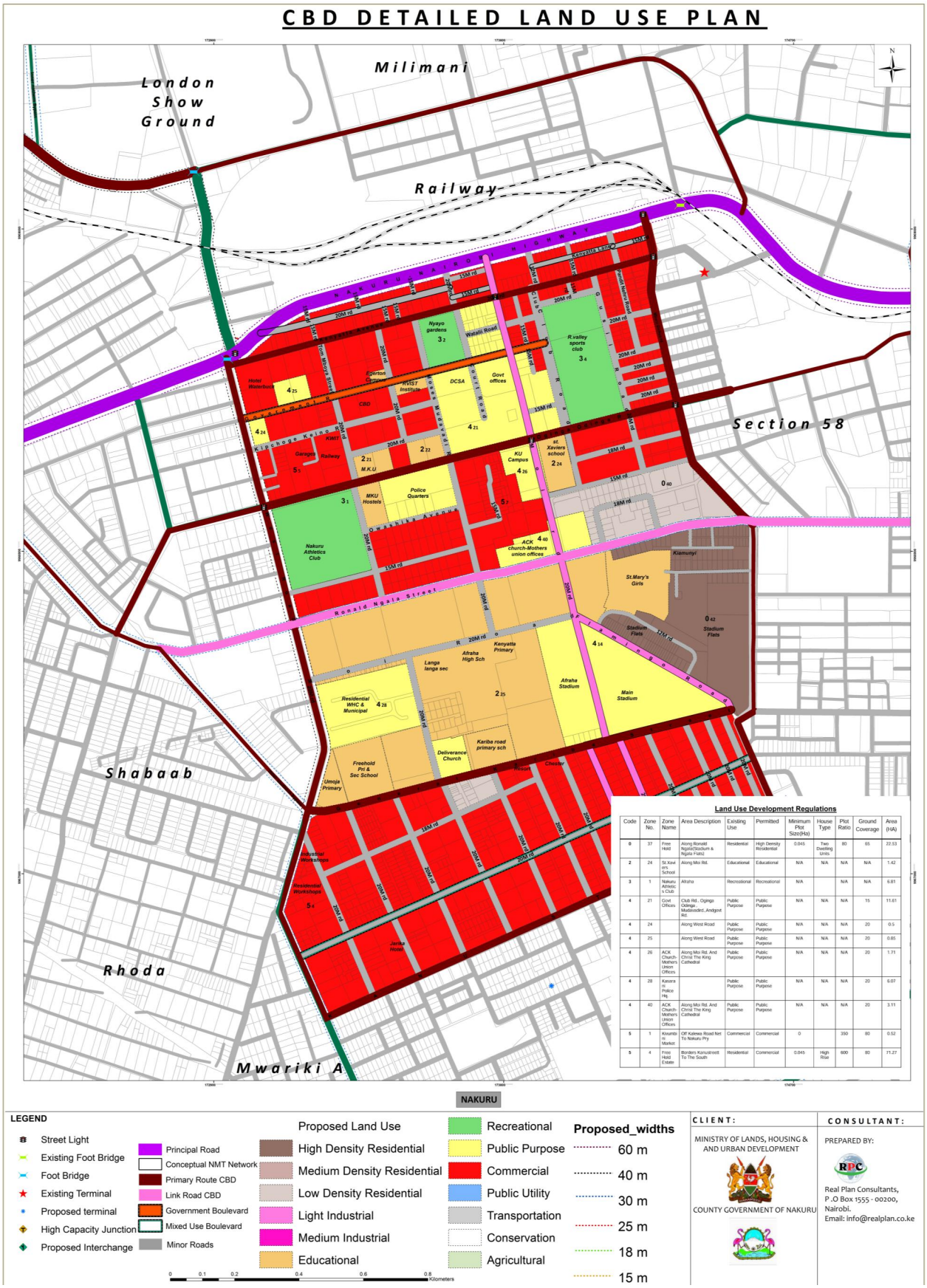


Figure 27: CBD Detailed Land Use Plan

5.1 Land Use Proposals

The planning area is delineated into 92 land use zones whose principal designated user range from various types of residential developments, conservation, commercial, industrial public spaces, educational to agricultural.

Conservation takes the largest portion at 45% representing 280km^2. The land under this use encompasses the Menengai crater, the crater forest, Lake Nakuru National Park and the surrounding national park. Residential zones take up a total of 25% while Agriculture takes 22%. Essentially this land use proportions makes Nakuru town a green city consistent with key focus of the planning vision since both Agriculture and conservation together comprise about 70% of the area.

Zone specific standards and regulations have been set for each of the land use zones as detailed in annex 1 of this report. Broad land use categories are discussed as follows;

5.1.1 Residential

A total of 41 residential zones have been proposed, 22 of which are high density, taking up a total of 58km^2 of land. High density residential zones cover areas such as Kivumbini, Shabaab, Rhonda, Kaptembwo, Mbaruk, Umoja, Langa Langa and London among others. For these areas, the proposed minimum plot size is 0.045 Ha. Plot ratios vary from 1 to 5 and plot coverage from 50 % to 65 %. These areas have been identified to be suitable for flats of upto 8 floors.

Medium density residential use takes up the largest portion of land dedicated to residential use at 79km^2. Thirteen of the residential zones have been designated for medium density covering among other areas, Milimani, Kiamunyi, Barut East and Muguga. The four proposed low density residential use zones take up a total of 22km^2 of land. The low density residential zones on the other hand include Kirima, Barut East and West.

High Density Residential Use

Much of the high density residential zones are situated around the CBD and towards the Eastern edge of the town. Generally, minimum plot sizes of up to 0.045 Hectares have been set for these zones, and sub division beyond this standard is deemed unsustainable. Most of the plots within the high density areas are expected to accommodate multiple dwelling units, where denser forms of development have been proposed featuring flats of up to eight (8) floors. This is necessary considering the high demand for housing against significant levels of land scarcity. It is hence of essence to optimize provision of housing and achieve compact growth of the town in order to control urban sprawl.

Zone 0_1

Located south of the CBD and adjacent to the park boundary, this zone covers Langa Langa, Lake View, Race Course, Pangani and Kimathi estates and It covers an area of 159.72 Hectares. This is a high density residential area with private and tenant purchase schemes. Most of the developments are of low level although flats have started to emerge.

The section of the zone fronting Kanu Street is largely commercial unlike the rest of the estates which are primarily residential. Business premises are also fairly mixed with residences. Schools and religious facilities are also available. The areas are also served with sewer and piped water.

Redevelopment recommendations have been made to improve both private and public housing. This is in the quest to address housing demand deficit in the area. The proposed plot coverage is 65% while the plot ratio is 3.5 and the minimum plot size is 0.045 Ha. Flats are recommended in this zone with a maximum of eight (8) floors.

Zone 0_2

This zone is located adjacent to the Park boundary, Mwariki A area and has an area of 113.44 Ha. The zone is significant because of the sewer treatment plant that serves Nakuru town which is located on the southern part of the zone. Currently, the dominant housing typology is row housing.

It is proposed as a high density residential zone with flats with a maximum of 5 floors. Other proposals for this zone include a minimum plot size of 0.045 Ha, plot coverage of 65% and plot ratio of 3.

Zone 0_3

This zone is located to the South West of the CBD and borders Kaptembwo to the North. It covers Shabaab area and an area of 128.47 Ha. It is proposed as a high density residential zone with flats with maximum of 8 floors. Other proposals for this zone include a minimum plot size of 0.045 Ha, plot coverage of 65% and plot ratio of 3.5.

Zone 0_4

Located to the East of RVIST Technology farm and next to the Industrial zone, this zone covers Githima and has an area of 7.97 Ha. It is proposed as a high density residential zone with flats of a maximum of 5 floors. The proposed plot coverage is 50% and the plot ratio is 2.5. The recommended minimum plot size is on the other hand 0.045 Ha.

Zone 0_5

Zone 0_5 is situated south west of the CBD. It encompasses Kaptembwo informal settlement and has an area of 185.01 Ha. It is proposed that this zone remains a high density residential zone with flats recommended up to a maximum of four floors. The proposed plot ratio is 2 and plot coverage is 50%. The recommended minimum plot size for this zone is 0.045 Ha.

Zone 0_6

This zone is located to the South West of the CBD and borders Kaptembwo informal settlement to the West and Shabaab to the North. It covers Rhonda informal settlement and has an area 316.84 Ha. It is currently a high density residential zone and it is recommended that the zone remains as such with flats up to a maximum of four (4) floors. The proposed plot ratio is 2 and the plot coverage is 50%. The recommended minimum plot size for this zone is 0.045 Ha.

Zone 0_{10}

The zone is located along Nakuru-Eldoret highway and to the west of the CBD. It consists of the area within Ngecha. It is currently an agricultural zone with homesteads, covering approximately 15.90 Ha. The zone is not serviced with sewer and it is recommended that sewer network be connected.

High density residential developments are recommended with a minimum plot size of 0.045 Ha, a plot ratio of 1 and plot cover of 65%. Developments within this zone are recommended to have a maximum of two (6) floors.

Zone 0_{12}

This zone is located to the West of the CBD within Ngata area and is 108.58 Ha. It is currently within an agricultural zone and has been proposed as a medium density residential zone with plot ratio of 3 and plot coverage of 65% with a minimum plot size of 0.045 Ha. Flats are recommended with a maximum of five (5) floors.

Zone 0_{14}

Located to the North West of the CBD, this zone covers London area and covers an area of 103.48 Ha. The zone has been proposed as a high density residential zone with a plot ratio of 2 and plot coverage of 65%. It is a zone recommended for flats of up to four (4) floors. The recommended minimum plot size is 0.045 Ha.

Zone 0_{18}

This zone covering an area of 101.26 Ha is located south of the CBD. It is a high density residential zone with public sector housing schemes which are currently dilapidated. This zone needs redevelopment to cater for the increasing demand for housing. Based on this, the zone has been proposed as a high density residential zone with flats of eight (8) floors recommended. The recommended minimum plot size is 0.045 Ha with a plot ratio of 3.5 and plot coverage of 65%.

Zone 0_{19}

This zone covers Manyani, Kivumbini Bondeni and Ziwani estates. It has an area of 147.24 Ha. It is a high density residential area located south East of the CBD and is adjacent to the National Park. The zone consists of some very old housing estates some of which are National, County and staff housing schemes. It also has some new private housing, especially those located closer to the park boundary.

The zone is serviced with sewer and piped water. It also has a number of public institutions such as schools, cemetery, religious centres and shopping centres. It is therefore most ideal for high rise developments. It is thus proposed that the zone be developed with flats of four floors (4), using a plot ratio of 2 and plot coverage of 65%.

Urban renewal initiatives are also deemed necessary for parts of this zone given that some of the old estates are now dilapidated. The estates also occupy very prime land which is not efficiently utilized. Pubic private partnership (PPP) projects are recommended for implementation of the initiatives. It is also noteworthy that the redevelopment of these estates will require serious public participation given that some of the estates have got tenants who have lived there for so long.

Zone 0_{21}

This zone is located along Solai Road and incorporates Teachers, Workers, White house, KITI and Mchanganyiko areas. It has an approximate area of 527.96 Ha. The area consists of residential developments that provide housing to people that work at the Kenya Industrial Training Institute (KITI) and also within the CBD. The zone is not serviced with sewer. It has a number of institutions which include health and educational facilities.

This zone has been proposed as a high density residential. For this zone, proposals include a plot ratio of 2.5 and ground coverage of 65%. The recommended building type will be flats with a maximum of four (4) with a minimum plot size of 0.045 Ha.

Zone 0_{23}

Located along Solai road, North East of the CBD, this zone covers the area around Heshima and Maili Sita. Its total area is 334.36 Ha and it is currently under mixed density residential use. The proposed use is high density residential. Developments of up to eight (8) floors are recommended because of the proposed commercial node both at Heshima and Maili Sita. The zone is not serviced with sewer and it is recommended that sewer network be connected. It has further been proposed to have plot ratio of 80% and plot coverage of 65% with a minimum plot size of 0.045 Ha.

Zone 0_{25}

This zone fronts Ndundori road and covers 634.37 Ha in Umoja area. Currently the predominant land use in the zone is agricultural with commercial and residential uses emerging along Ndundori road. Most of the developments are low rise but flats have started to emerge. The zone has a number of institutions which include health and educational facilities. It however has no sewerage system connection

The zone has been proposed to be a high density residential zone with a minimum plot size of 0.2 Ha, standard plot ratio of 1.5 and a ground cover of 50%. Flats of up to three floors are also recommended.

Zone 0_{29}

Covering an area of 940.14 Ha, this zone is located south east of the CBD. It is currently under agricultural use and has been proposed as a high density residential zone with flats of four (4) floors. The minimum plot size is proposed to be 0.045 Ha with a plot ratio of 2.5 and plot coverage of 65%.

Zone 0_{30}

This zone consists of the area around Muguga, Pipeline and Mwariki B and has an area of 835.28 Ha. Currently, it is an agricultural zone with homesteads. The zone is not serviced with sewer and it is recommended that sewer network be connected.

The zone has been proposed as a high density residential zone with recommended minimum plot size of 0.045 Ha, plot ratio of 2.5 and plot coverage of 65%. The recommended housing typology is flats of up to four (4) floors.

Zone 0_{31}

Located around Barnabus to the South East of the CBD, this zone covers an area of 230.62 Ha. It is currently under medium density residential and has been proposed to be a high density residential zone. The recommended minimum plot size is 0.045 Ha with a plot ratio of 3.5 and plot coverage of 65%. The recommended housing typology is flats of up to eight (8) floors.

Zone 0_{32}

This zone is located east of the CBD and consists of the Free area covering an area of 97.82 Ha. It borders Naka to the West and Mwariki B to the East. The zone has residential neighbourhood characterized by row housing, mostly single rooms. There are, however, upcoming flats in the neighbourhood. This development trend is an indication that the housing demand in the zone is increasing, hence the need to densify the neighbourhood. The zone has no sewer network. There is thus necessity to provide the sewerage infrastructure.

The zone has been proposed as a high density zone with minimum plot sizes of 0.045 Ha, plot ratio of 2.5 and plot coverage of 65%. The recommended housing typology is flats of up to four (4) floors.

Zone 0_{33}

Located east of the CBD, this zone occupies Kiratina and covers an area of 299.56 Ha. It is currently under low density residential and has been proposed as a high density residential zone. It is proposed that each plot will have two dwelling units with a maximum of two floors. This zone has been proposed to have plot ratio of 1 and plot coverage of 50% with a minimum plot size of 0.045 Ha.

Zone 0_{38}

Zone 0_{38} is located North West of the CBD in Mangu area, next to Menengai Railway station and measures 44.66 Hectares. Currently, the area is an agricultural zone with homesteads. The zone has now been proposed as a high density residential zone with a recommended minimum plot size 0.045 Ha, plot ratio of 2.5 and plot coverage of 65%. The proposed housing typology is flats.

Zone 0_{39}

It covers a total area of 427.17 Hectares within the Pipeline locality which currently exhibits medium density residential development. This zone has been proposed for high density residential development with flats of up to four (4) floors. The recommended plot ratio is 2.5 and a plot coverage of 60% with a minimum plot size of 0.045 Hectares.

Zone 0_{40}

Occupying a total area of 58.45 Hectares, this zone is located around Mercy Njeri. It has been proposed for high density residential development. It is recommended that each plot should have two dwelling units with a maximum of two floors. The recommended land use regulations for the zone include a plot ratio is 2.5, a ground coverage of 60% and a minimum plot size of 0.045 Ha.

Medium Density Residential Zones

A total of fourteen (14) residential zones have been designated medium density. The zone specific regulations are detailed below;

Zone 0_{7}

This zone is located south West of the CBD and consists of the area around Barut East. Currently the area is an agricultural zone with homesteads with an area has an area of 1766.09 Ha. This zone has been proposed as a medium density residential zone. The zone is not serviced with sewer and it is recommended that sewer network be connected.

The proposed minimum plot size is 0.045 Ha, with maisonettes, Flats and Bungalows being the proposed housing typologies with a maximum of two (2) floors. The recommended plot ratio is 1 and plot coverage of 50 %.

Zone 0_{9}

This zone is located within Njoro area and borders the railway line to the East and the Nakuru-Eldoret highway to the North. It is currently within an agricultural area and covers an area of 1252.07 Ha.

This zone has been proposed as a medium density residential zone with flats of two (2) floors. The recommended plot ratio is 50% and a plot coverage of 50% with a minimum plot size of 0.045 Ha.

Zone 0_{11}

This zone is also located within Ngecha. It has been proposed as a medium density residential zone and covers an area of 67.15 Ha. It is recommended that each plot should have two dwelling units with a maximum of two floors. The recommended plot ratio is 1 and a plot coverage of 35% with a minimum plot size of 0.045 Ha.

Zone 0_{13}

This zone covers the areas of Kiamunyi and Soilo which are located on the western side of the CBD and has an area of 1295.67 Ha. The zone is currently a mixed density residential estate with the building typologies comprising of bungalows and maisonettes. There are a few flats at the section between Kabarak Road and Nakuru-Eldoret Highway. The zones have plots sizes ranging from 0.045 Ha to 0.2 Ha.

This zone has been proposed as a medium density residential zone with maisonettes proposed on plots covering a minimum of 0.045 Ha. A plot ratio of 1 and plot coverage of 35% is recommended.

Zone 0_{15}

Covering an area of 311.68 Ha, this zone covers the Golf course area adjacent to Prison road which is located north of the CBD. It has been proposed for medium density residential development. The recommended minimum plot size is 0.045 Ha with a plot ratio of 1.5 and plot coverage of 35%.

Zone 0_{17}

Covers part of Milimani and occupies a total area of 232.48 Ha. The zone has been recommended for medium density residential development. A minimum plot size of 0.2 Ha, plot ratio of 1 and plot coverage of 35%. Bungalows are recommended as the ideal housing typology for this particular zone.

Zone 0_{20}

Located east of the CBD, the zone occupies 209.17 Ha of land covering parts of Section 58 and Kabachia estates. A minimum plot size of 0.045 Ha is recommended in addition to a plot ratio of 1.5 and plot coverage of 50%.

Zone 0_{24}

Located on the North Eastern part of the CBD, this zone covers sections of Modern farm, Kiamunyeki, Engashura and Workers. It occupies an area of 1577.31 Ha. Among the proposals for this zone include a minimum plot size of 0.045 Ha, plot ratio of 1 and a ground coverage of 35%.

Zone 0_{26}

Located to the East of the CBD, this zone occupies Nyonjoro area and covers a total area of 214.14 Ha. It is currently under mixed density residential use and has been designated a medium density residential zone. The recommended housing typology is bungalows, maisonettes and flats of up to three floors. With a proposed minimum plot size of 0.045 Ha, other recommendations for this zone include a plot ratio of 1.5 and plot coverage of 50%.

Zone 0_{34}

Covering an area of 142.97 Ha, this zone is located east of the CBD within the locality of Nakuru Blankets. Two dwelling units are recommended on a minimum plot size of 0.045 Ha. Also recommended for the zone is a plot ratio of 1 and a plot coverage of 50%.

Zone 0_{35}

This zone is located east of the CBD in Naka C. It borders Free Area to the East and covers a total area of 31.11 Ha. Medium density residential development is proposed. The suggested plot ratio is 2 while the plot coverage is 50%. The minimum plot size is on the other hand recommended at 0.045 Ha. It is also proposed that each plot should have a maximum of two dwelling units with a maximum of two floors.

Zone 0_{36}

Covering an area of 26.94 Ha, this zone covers Naka B and is adjacent to Naka C. It is has been proposed as a medium density residential zone with maisonettes recommended as the housing typology. The recommended minimum plot size is 0.045 Ha with a plot ratio of 1.5 and plot coverage of 35%.

Zone 0_{37}

This zone consisting of Naka A covers an area of 37.55 Ha. It has been proposed for medium density residential development, with plot ratio of 1, plot coverage of 35% and a minimum plot size of 0.045 Ha. The recommended housing typology is bungalows.

Zone 0_{41}

This zone is located off Nakuru-Nairobi road and it covers an area of 194.14 Ha. Currently, the area is an agricultural zone with homesteads. The zone is not serviced with sewer and it is recommended that sewer network be connected. The recommended minimum plot size is 0.045 Ha, while the plot coverage is 35% and the plot ratio is 1. The proposed housing typology is maisonettes, bungalows and town houses.

Low Density Residential Zones

Five residential zones have been designated low density. The zone specific regulations are detailed below;

Zone 0_{8}

Zone 0_8 covers an area of 642.78 Ha in Barut East. Low density residential development is recommended which is to be characterised with bungalows. The proposed plot ratio is 1 and plot coverage of 35%. The recommended minimum plot size for this zone is 0.2 Ha.

Zone 0_{16}

This zone is located north of the CBD and covers a section of Milimani estate, and has an area of about 200.33 Ha. The zone is serviced with sewer network. Currently the zone has residential developments consisting of bungalows and maisonettes and town houses. Some plots have slightly changed to higher densities with high end apartments being developed in the recent past. Further conversion to apartments should be discouraged.

The zone has been proposed to remain low density with a minimum plot size of 0.1 Ha, plot ratio of 1 and plot coverage of 35%.

Zone 0_{22}

It borders Menengai crater and covers Kirima area. Currently the area, covering 784.03 Ha, is under residential cum agricultural uses.

The slope characteristics of the area favour low density residential developments. Minimum plot sizes of 0.4 Ha are proposed. The recommended plot ratio and plot coverage are on the other hand 1 and 35% respectively. The building typologies deemed most suitable for the area are Bungalows and town houses since thy will blend well with the neighbourhood.

Zone 0_{27}

This zone is located around Ndege farm area. It borders Lanet Barracks which also has an airstrip and covers an area of 277.94 Ha. Currently the zone has some mixed density residential character but it is recommended that developments should be geared towards low density residential building typologies.

A plot ratio of 1, a plot coverage of 35% and a minimum plot size of 0.045 Ha is recommended for the zone

Zone 0_{28}

Located off Nakuru-Nairobi road, the zone covers a total area of 673.52 Ha. Currently, the area is an agricultural zone with a few homesteads. The zone is not yet serviced with sewer and it is recommended that sewer network be connected. The recommended plot coverage of 35 % and a plot ratio of 1. The proposed housing typology is maisonettes, bungalows and town houses. The proposed minimum plot size is 0.045 Hectares although larger plot sizes are desirable.

Located at away from the main road, this zone is expected to form the future bulk of low density housing given that Milimani and other similar estates which are older are almost fully developed.

5.1.2 Industrial Use

The situational analysis revealed that there is currently no public land that has been set aside for industrial development. The only available designated industrial land is already alienated and thus private property. A large portion of it is developed although there are a few plots that are yet to be developed. Much of the land is within the industrial area located west of the CBD. The other minor industrial sites are scattered in various parts of the town.

It is also to be noted that most of the industrial land was as a result of land alienation dating back to the colonial times, during which most of the early industries of the town were established. In the recent past, the town has also witnessed the establishment of industrial activities outside the old industrial zones on land purchased from previous freehold properties in the peri-urban areas.

To protect the available industrial land, the plan proposes to earmark such land specifically for industrial development so as to avoid conversions to other types of land use. The total land area of the industrial land is 4 km^2 spread over three zones which are either medium or light industrial.

Zone $\mathbf{1_1}$ is proposed for industrial development. Situated along Nakuru-Eldoret highway within the existing industrial area, east of the CBD, the zone is currently under industrial use and covers 341.81 Ha. A plot ratio of 1.5 and plot coverage of 65 % is proposed.

Light Industrial activities are proposed on zones 1_2 and 1_3, located in Prairie/Teachers area and Lanet area respectively. Zone 1_2 measures 63.34 Ha while Zone 1_3 measures 47.62 Ha. The proposed plot ratio and plot coverage is 1.5 and 65% respectively.

5.1.3 Public Purpose

Eleven (11) zones are designated for public purpose use, taking up a total area of 547.8 Hectares.

The first is Zone 4_1 which is occupied by the Lanet Barracks. It measures 730.60 Ha. Zone 4_2 on the other hand covers 6.2 Ha and houses a cemetery. Zones 4_3 and 4_4 are located in Manyani and they together take up an area of 23.41 Ha.

Zone 4_5 encompasses the show ground, KMTC and PGH, all of which take 121.60 Ha. Other are zones 4_{21}, 4_{25}, 4_{26} and 4_{28} which cover a total of 142.34 Ha. Zone 4_{21} houses Government offices, zone 4_{26} is occupied by the ACK Mothers Union offices and zone 4_{28} is the Kasarani Police HQ.

5.1.4 Commercial

The most dominant commercial zones include the CBD and the nodes. The total area of land dedicated to commercial nodes is 794.98 Hectares, representing 1.3 % of the total area. A total of twelve commercial nodes have been proposed including the expanded Nakuru CBD which is the primary node. Secondary nodes include Barnabus, Githioro, Kabatini, Heshima, Mchanganyiko, Whitehouse, Maili Sita, Maili Saba, Mercy Njeri, Olive Inn, Kiungururio and Prairie. These make up zones 5_2, 5_3, 5_4, 5_5, 5_6, 5_7, 5_8, 5_9,5_{10}, 5_{11}, 5_{12} and 5_{13} respectively. They have been dedicated primarily to commercial use in order to reduce overreliance on the CBD.

The expanded CBD covers 292.77 Ha of land. It is primarily reserved for commercial use but this may be accompanied by other essential uses such as transportation, public purpose and public utility. The recommended building type for the CBD remains high-rise with a maximum of 15 floors. The building regulations consider the delicate geological structure of the town and serve to reduce chances of geological disturbances that may result from building beyond the recommended height. Geotechnical studies are recommended for such high rise developments as a perquisite to development approval.

The proposed minimum plot size is 0.045 Hectares, while a plot ratio and plot coverage of 10 and 75% respectively is recommended. In Freehold, including Kanu Street, densities proposed are 75% plot coverage and plot ratio of 9. The High rise residential developments in freehold are to be developed with a ground coverage of 65% and a plot ratio of 5. The commercial zones are as described below.

Zone 5_2

This zone is located in Mercy Njeri area and measures 32.32 Hectares. The proposals made for this zone include high rise buildings, not exceeding six (6) floors and a minimum plot size of 0.045 Hectares. Further, a plot ratio of 2.5 and plot coverage of 75% are proposed.

Zone 5_3

It covers the entire Olive Inn shopping centre area, a total area of 33.78 Hectares. High rise buildings not exceeding eight (8) floors have been recommended in this zone. A minimum plot size of 0.045 Hectares, a plot ratio of 2 and plot coverage of 75 % are recommended.

Zone 5_4

It covers Mchanganyiko shopping centre, an area measuring 41.54 Hectares. The proposals for the zone include high rise buildings, not exceeding six (6) floors and a minimum plot size

of 0.045 Hectares. Other development control standards for the zone include a plot ratio of 3 and plot coverage of 75%.

Zone 5_6

Zone 5_6 measures 24.06 Hectares and covers Maili Sita shopping centre. High-rise developments with a maximum of eight (8) floors and a plot ratio of 3.5 are recommended. A plot coverage of 75% for both commercial area and residential area. The permitted minimum plot size for the commercial area is 0.045 Hectares and 0.03 for the residential area.

Zone 5_7

This zone is situated in Prairie area and covers 108.32 Hectares. High rise buildings of up to a maximum of eight (8) floors are recommended. The recommended minimum plot size is 0.045 Hectares while the plot ratio and plot coverage are 5 and 75% respectively.

Zone 5_8

Zone 5_8 covers a total of 23.31 Hectares in Kabatini shopping centre. High-rise developments with a maximum of eight (8) floors and a plot ratio of 3 are recommended. A plot coverage of 75% for the commercial area and 65% for residential area is also recommended .The permitted minimum plot size for the commercial area is 0.045 Hectares and 0.03 for the residential area.

Zone 5_9

Zone 5_9 measures 167.55 Hectares and covers Barnabas area. High-rise developments with a maximum of eight (8) floors for commercial and four (4) floors for residential areas. A plot ratio of 9 for commercial and 2.5 for residential is recommended. A plot coverage of 75% for the commercial area and 65% for residential area is also recommended .The permitted minimum plot size for the commercial area is 0.045 Hectares and 0.03 for the residential area.

Zone 5_{10}

This zone encompasses Githioro shopping centre a total area of 1.65 Hectares. The proposals made for this zone include high rise building type, not exceeding eight (8) floors and a minimum plot size of 0.045 Hectares. In addition, a plot ratio of 5 and plot coverage of 75% is recommended.

Zone 5_{11}

This zone encompasses Kiungururio shopping centre and it measures 24.35 Hectares. The proposals made for this zone include high rise building type, not exceeding four (4) floors and a minimum plot size of 0.045 Hectares. In addition, a plot ratio of 5 and plot coverage of 75% is recommended.

Zone 5_{12}

Zone 5_{12} measures 21.64 Hectares and covers Heshima area. High-rise developments are recommended, with a maximum of six (6) floors for commercial and four (4) floors for residential areas. A plot ratio of 3 for commercial and 2.5 for residential is recommended. A plot coverage of 75% for the commercial area and 65% for residential area is also recommended .The permitted minimum plot size for the commercial area is 0.045 Hectares and 0.03 for the residential area.

Zone 5_{13}

This zone is situated in Maili Saba and covers 23.69 Hectares. High-rise developments are recommended, with a maximum of six (6) floors for commercial and four (4) floors for residential areas. A plot ratio of 5 for commercial and 2.5 for residential is recommended. A plot coverage of 75% for the commercial area and 65% for residential area is also recommended .The permitted minimum plot size for the commercial area is 0.045 Hectares and 0.03 for the residential area.

5.1.5 Public Utility Use

There are 4 exclusive public utility zones taking up a total area of 156.53 Hectares. This represents 0.3% of the total area of the town. These zones are currently occupied by Nakuru sewer works, Pipeline depot and Power sub-station.

Zone 6_1

Currently, Mwariki sewer works are located on this zone and it is proposed that it remains as such. The land area here is 90.28 Hectares.

Zone 6_2

This land is currently occupied by a Kenya Power Substation. It is recommended that this public utility is maintained on the 16.89 Ha site.

Zone 6_3

Located within the Pipeline area near Barnabus, this zone covers an area of 17.06 Ha. The zone has been reserved for public utility and will serve as a pipeline depot.

Zone 6_4

This zone is currently occupied by the Kyoto dumpsite and it measures 32.30 Ha. This ISUDP proposes the rehabilitation of the dumpsite.

5.1.6 Transportation

Other than transport corridors (roads and railway lines), this land use is represented by terminal facilities. The latter are in zones 7_1, 7_2, 7_3, 7_4, 7_5, and 7_6 and together they cover an area of 402.59 Hectares, representing 0.7% of the total town area.

Zone 7_1

This zone is presently occupied by the Nakuru railway station, which takes up an area of 68.63 Ha. It is situated on the Northern side of the CBD and serves as a major terminus since it is an intermediate station between the Western parts of the country and major cities like Nairobi and Mombasa.

Zone 7_2

This zone and is located on the Eastern side of the CBD. It is occupied by the main bus terminus and it covers an area of 7.12 Ha.

Zone 7_3

Zone 7_3 is situated on the Eastern part of the CBD and serves as a railway terminus. It covers an area of 3.36 Ha.

Zone 7_4
This zone encompasses Menengai railway station. It is positioned north west of the CBD and covers an area of 12.74 Ha. It is an important railway terminus that links Nakuru town to the Western part of the Country. It has been proposed that this terminus be upgraded.

Zone 7_5
This zone is an area in Free Area, in which a railway terminus has been proposed occupying 56.56 Ha.

Zone 7_6
Located South East of the CBD, this zone a proposed location of an airport and it has an area of 254.18 Ha.

5.1.7 Agricultural Use
Agriculture is crucial to the growth of Nakuru town. As such, due emphasis has been put on agricultural land in the town. Zones designated for agricultural use cover a total of 13747.18 Ha representing 22.4% of the planning area. This plan proposes six agricultural zones spread evenly across the town.

Zone 9_1
Zone 9_1 is fairly extensive, taking up 3190.24 Ha in Barut West. The zone is primarily under agricultural use currently. A minimum plot size of one acre (0.4 Ha) is recommended.

Zone 9_2
This zone covers an extensive area of 1834.29 Ha. It is located within Ngata, West of the CBD. Currently this stretch consists of small fairly sized agricultural land parcels and agricultural homesteads. Maize and wheat farming is common here. The zone is expected to remain agricultural within the planning period and no urban development should be permitted so as to safeguard the agricultural land in bid to ensure food security. The recommended minimum plot size is one acre (0.4 Ha).

Zone 9_3
Located in Mang'u, this zone is 2010.29 Hectares. The permitted minimum plot size is 0.4 Ha.

Zone 9_4
Situated in Wanyororo/Kabatini area, this zone measures 6039.37 Hectares. The zone enjoys favourable conditions for crop farming and is endowed with fertile loam soils. Land sub division to portions less than one 0.4 Ha is prohibited in this zone.

Zone 9_5
This zone takes up 428.04 Hectares in Kiamunyi. The permitted minimum plot size is 0.4 Hectares.

Zone 9_6
Situated in Kiamunyi and measuring 244.95 Hectares, this zone has been earmarked for agriculture. The recommended minimum plot size is 0.4 Hectares.

5.1.8 Conservation

There are three (3) key conservation areas in the town including; the Menengai Crater and Forest and Lake Nakuru, and the adjacent national Park. Together, they cover a total area of 28022.01 Hectares representing 45 % of the planning area.

Zone 10_1

On this zone lie the Menengai crater and an extension of the neighbouring crater forest, covering a total area of 8469.44 Hectares. It is proposed that this stretch of land remains under conservation.

Zone 10_2

The Menengai Forest covers 542.15 Hectares. This zone is to remain a conservation area.

Zone 10_3

This zone is comprised of 19010.42 Hectares of land primarily occupied by Lake Nakuru and the adjacent National Park. It is recommended that this zone remains a conservation area.

5.2 Conclusion

The above proposed land use plan is aimed at achieving the Town's Vision. The guidelines are intended to ensure sustainable urban land use. More emphasis has been put on protection of the vast conservation and agricultural lands as they are key contributors to the environmental sustainability and therefore the town's economy. The land use plan advocates for a compact city in which urban sprawl is limited (refer to the comprehensive land use regulation table in annexure no. 1).

CHAPTER SIX

LOCAL AREA PLANS

A number of areas with particular special concerns have been identified for purposes of comprehensive planning. Such area are experiencing intensive change and urban management challenges and so they require major development adjustments. The plans prepared for these areas are action oriented and known as local area plans. The areas include the CBD, Barnabas, other nodes and lake edges among others.

6.1 The CBD (Urban Core)

Given the pivotal role that the CBD plays in the current and future development of Nakuru, proposals have been made for its expansion. Furthermore, guidelines for detailed planning and optimal operationalization of area have been recommended. The local area plan for the CBD has undergone a series of scrutiny and the one presented in this report is a refined product based on inputs from various stakeholders. The inputs were received through direct engagement with various focus groups and specialists among whom were transportation and services engineers.

6.1.1 CBD Design Concept

The East West Development Arc

The CBD remains a key area within the urban core and along the east west development arch. As a primary node, it also has the potential to expand southwards towards the lake so that it can accommodate future population growth and commercial activities. The expansion of the CBD is seen as a critical way forward complemented by other potential secondary specialized nodes, the extension of the commercial and industrial uses and through the creation of medium to high density residential development.

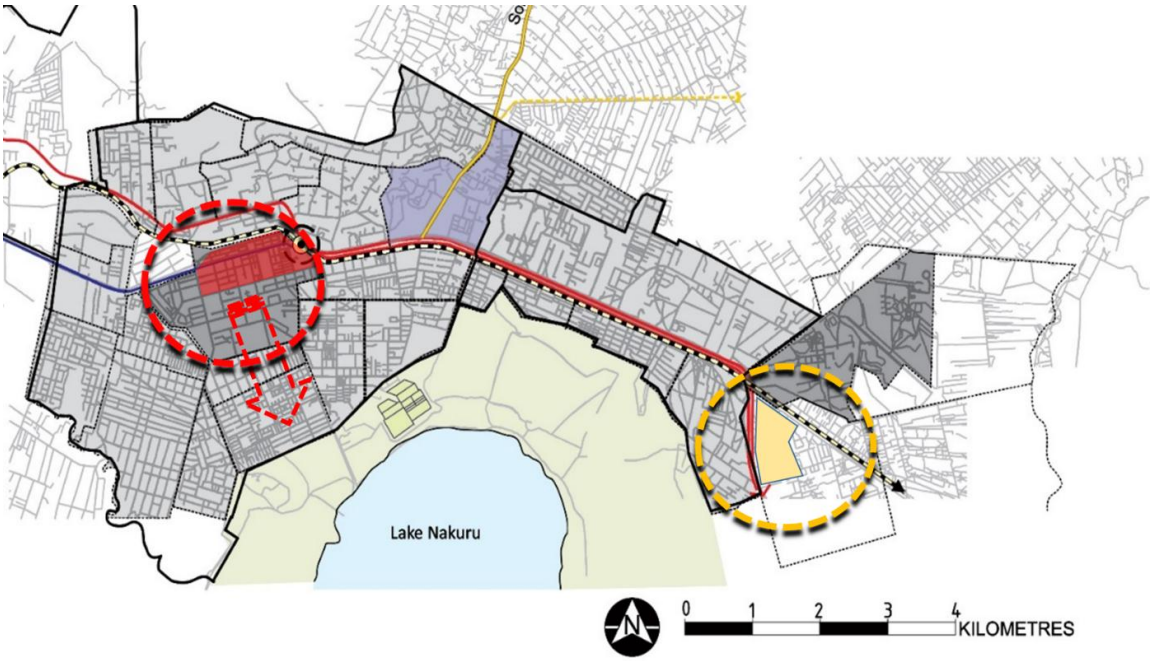


Figure 28: East-West Development Arc and CBD Expansion

6.1.2 CBD Expansion

It is proposed that the CBD be expanded to include the Free Hold area up to Kanu Street. This is envisioned to trigger the following benefits:

- Improve and distribute public transport facilities to make it more accessible
- Increased potential for additional market places
- Opportunity to expand motorised and non-motorised movement networks
- Increased opportunity for the provision of well-connected and structure addition of public space
- Ability to diversify land use distribution
- Optimise the utilization of the available space

6.1.3 Expansion of CBD connective and mobility system

The figure overleaf is a combination of photographic plates describing the character and scale of the predominant CBD built form. It indicates the current mobility system therein.

Figure 29: CBD connective and mobility system

Figure 30 overleaf further represents the existing built fabric and urban grain highlighting the structure and key drivers for the consolidation, intensification, diversification and general upgrading of what could be defined as the historical CBD.

The CBD improvement strategy also promotes it as a transportation hub with need for densification, expansion of markets, preservation of available culture and heritage sites, safety and security and upgrading of the public environment as illustrated in figure 30.

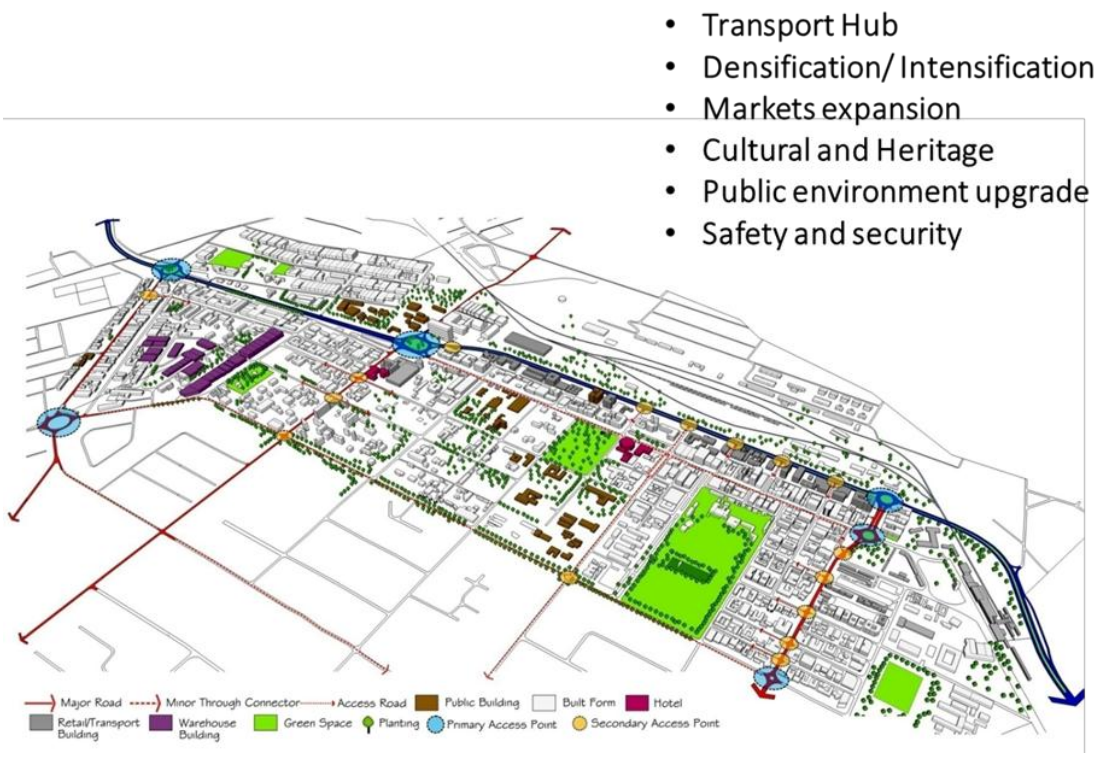


Figure 30: Current proposed **CBD urban grain and defining features**

The green infrastructure connecting the CBD and lake illustrates the strategic direction and building blocks of the vision promoting a better integration of the CBD to the National Park and the Lake. This is has been done though the introduction of what could be described as a new “green infrastructure” connecting the central neighbourhoods to the Park edge.

It also indicates the proposed road and movement hierarchy and the intention to distribute transport nodes with the objective of decentralizing these services to improve access and traffic flow.

Figure 31: Proposed Green Infrastructure Connecting CBD to the Lake

6.1.4 Movement and Access

Figure 32 illustrates the proposed movement and access system in the CBD. It is a critical aspect of the plan which aims at improving the efficiency of the system by:

- Reinforcing the existing road movement network within the CBD; and upgrading roads and intersections. These include Kenyatta Avenue, West Road, Mburu Gichua Road, Oginga Odinga Avenue, General Kariba and others. This improves mobility and connectivity throughout the CBD, as well as access into the core area of Nakuru.

- Establishing a series of secondary link streets, which improve the movement network, mobility and access. This includes the upgrading and redevelopment of Ronald Ngala Street and its extension eastward with Landhies Road and a northward link on to the A104 (Old Nairobi Road). This provides for a second access point into the core area. It will also allow for through traffic on to the A104 (Nakuru-Kisumu Road) at the Town Clock roundabout on the western end of the core area. Similarly the north-south Moi Road is to be upgraded, providing improved access and links to the Afraha Stadium and southern extension areas of the CBD.

- The proposed development is converting Government Road into a pedestrian oriented or shared street, a tree lined boulevard within the government precinct in the CBD which could be called - the “Government Boulevard”. This would extend linkages and walkability within the CBD, and improves pedestrian connections from the Westside Mall & Hotel Hub to the west to the town hall and central park, with secondary connections to the town market in the east and Kenyatta mixed use activity spine in the north. This is also connected to the proposed complete pedestrianisation of Court Road south of Government Road.

- The importance of improved railway services is considered by the introduction of a second station at the extension of West Road crossing the railway line. This is to improve public transport services and facilities for the CBD. It is assumed with the redevelopment of the railway line that the existing station will also be redeveloped and

its functions reinstated. This strategically positions the County capital to benefit from the all-important railway access and functionality which the extensive railway investment promises to realise over the longer term.

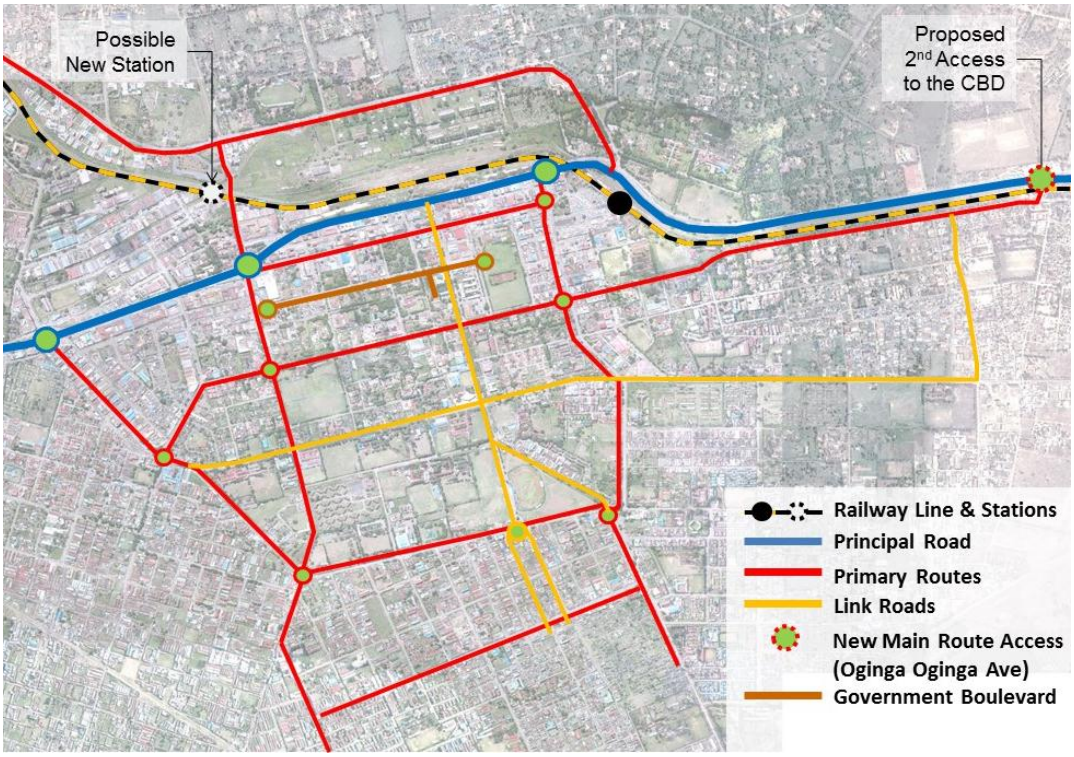


Figure 32: Movement and Access

6.1.5 Land Use Activities

- The CBD is structured into a series of local precincts, including the existing transport and market hub at the railway station (eastern precinct); the central government institutional precinct; the western Westside Mall and Hotel precinct, and the far western light industrial precinct.
- The various precincts are connected via the Kenyatta Avenue mixed use activity spine. This activity spine is reinforced and extended westward into the light industrial precinct.
- The southern extension of the CBD into the Free Hold suburb, proposes the development of a mixed use activity spine along Kanu Street, with a precinct transport and market hub. A mixed use boulevard is proposed in the street parallel thereto.
- Each of the precincts includes a public space at its core and they form the central focus and hub of the particular activity. They include either a transport and market hub, or a central park or square, or other distinguishing facility such as the Westside Mall & Hotel.

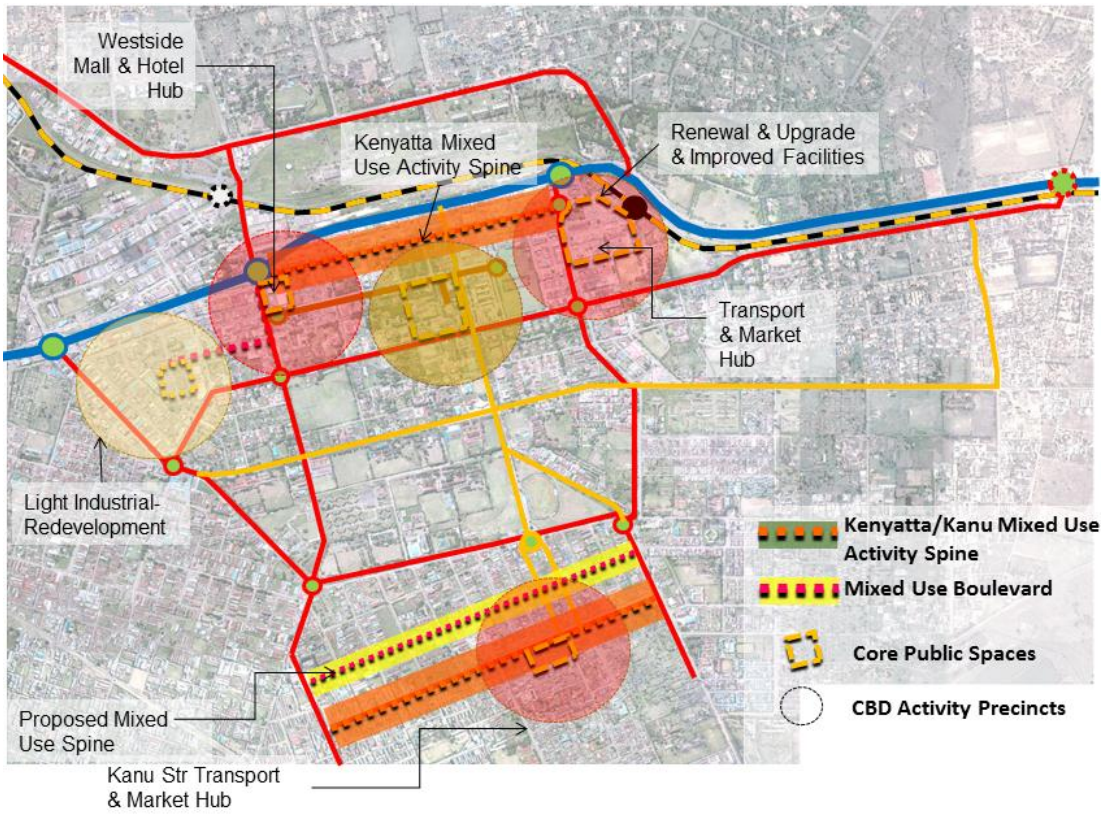


Figure 33: Land use Activities

6.1.6 Public Environment

- The public space environment is structured into a series of components, including the high street / activity spine, the Government Boulevard (specialist public space in the form of a pedestrian dominant avenue); pedestrian avenues as part of the street environment; existing and proposed parks and sport & recreation facilities.
- An interconnected network of pedestrian friendly avenues is proposed; which links each of the various precincts and their core public spaces; as well as all the activity zones within the CBD.
- The proposed public space environment establishes walkable network throughout the CBD, reinforcing the existing connections and improving accessibility.

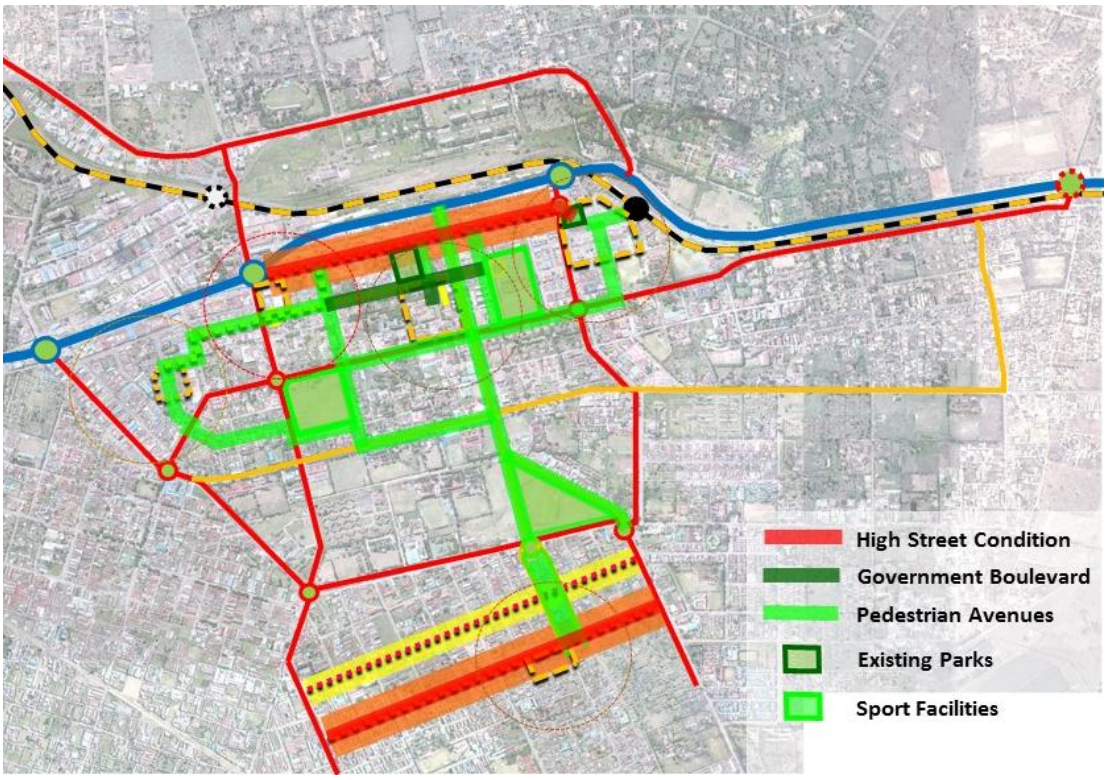


Figure 34: Public Environment

6.1.7 NMT Network and Public Transport

- The proposed public space network of pedestrian avenues forms the backbone of the proposed non-motorised transport network within the CBD and its proposed extension. This proposed network improves walkability and the utilisation of bicycles.
- The proposed public transport network is structured in a loop system which links with all the existing public transport and proposes strategically located new public transport stops. The system also links with all the existing markets and activity areas throughout the CBD. This establishes an integrated public transport system; with convenient pedestrian access and transfer points at the primary hubs and station. It is an internal loop system within the CBD, with stops at the primary transport hubs that link with wider city, regional and national transport services.

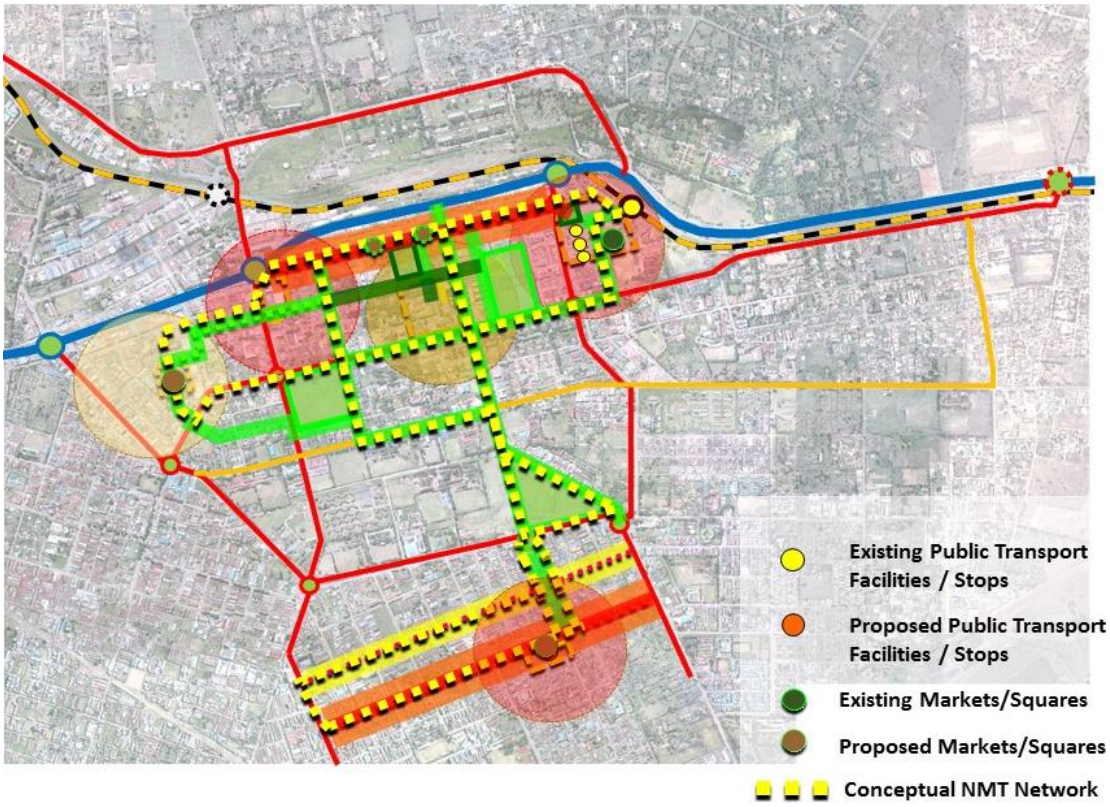


Figure 35: Proposed NMT Network

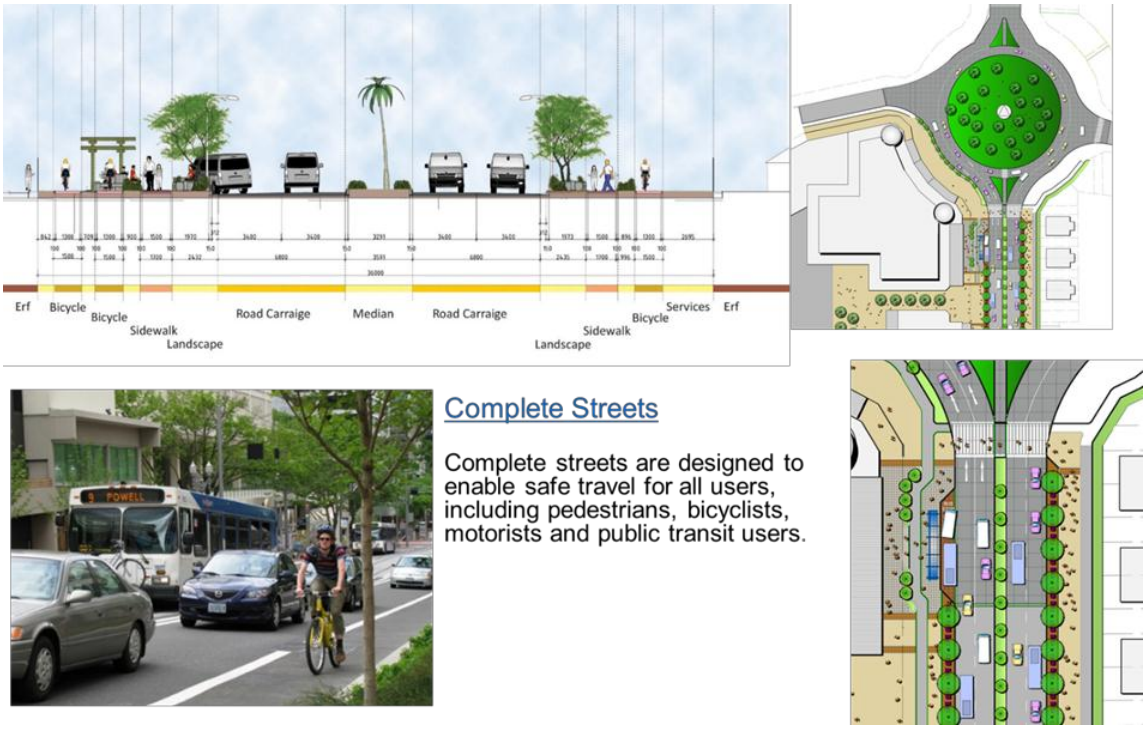


Figure 36: Examples of NMT Facilities and Complete Street Concepts

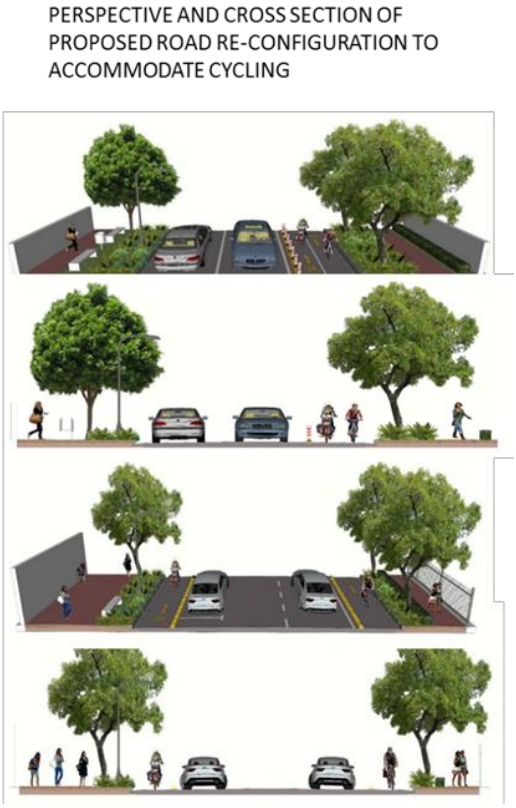


Figure 37: Examples of NMT Facilities and Complete Street Concepts for the CBD

6.2 Barnabas /Lanet

Figure 38 shows the local areas plan proposed for Barnabas. Figure 39 further details out the plan showing the proposed land use distribution which are meant to promote the development potential of Barnabas and Lanet in an integrated manner. The plan indicates the aim to take advantage of growth potential of the areas, which is promoted by their strategic location.

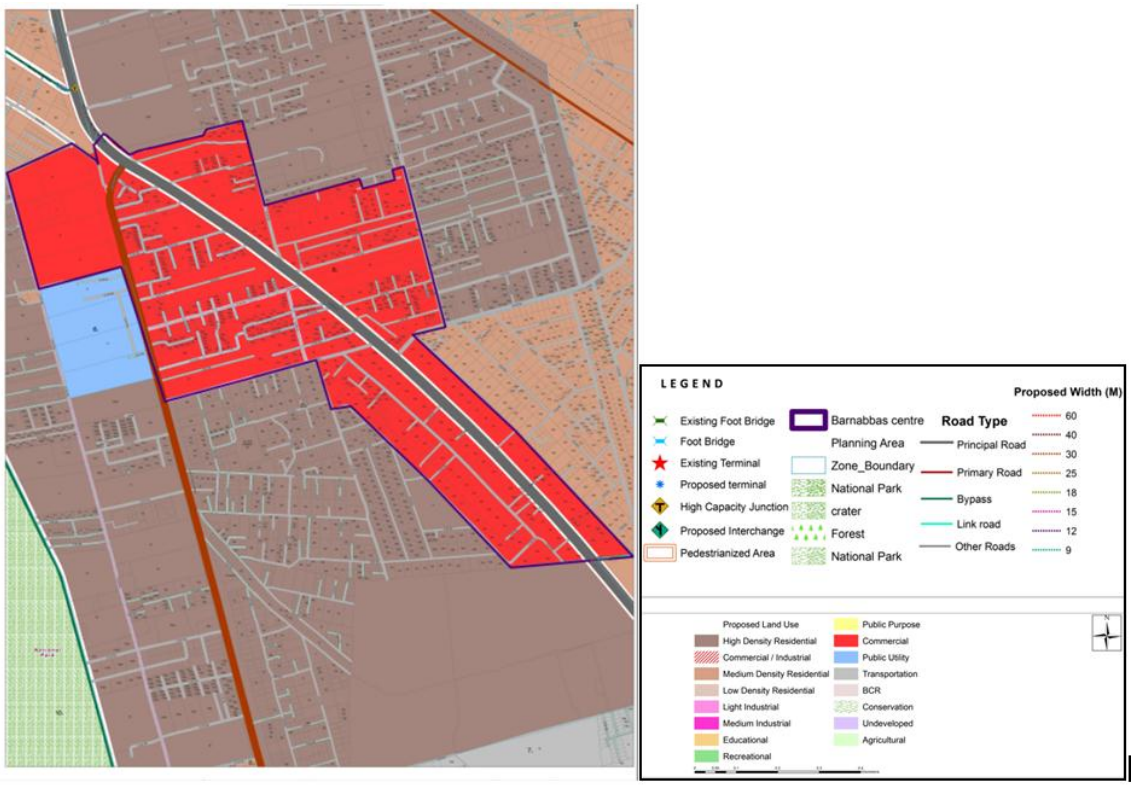


Figure 38: Barnabas Local Area Plan

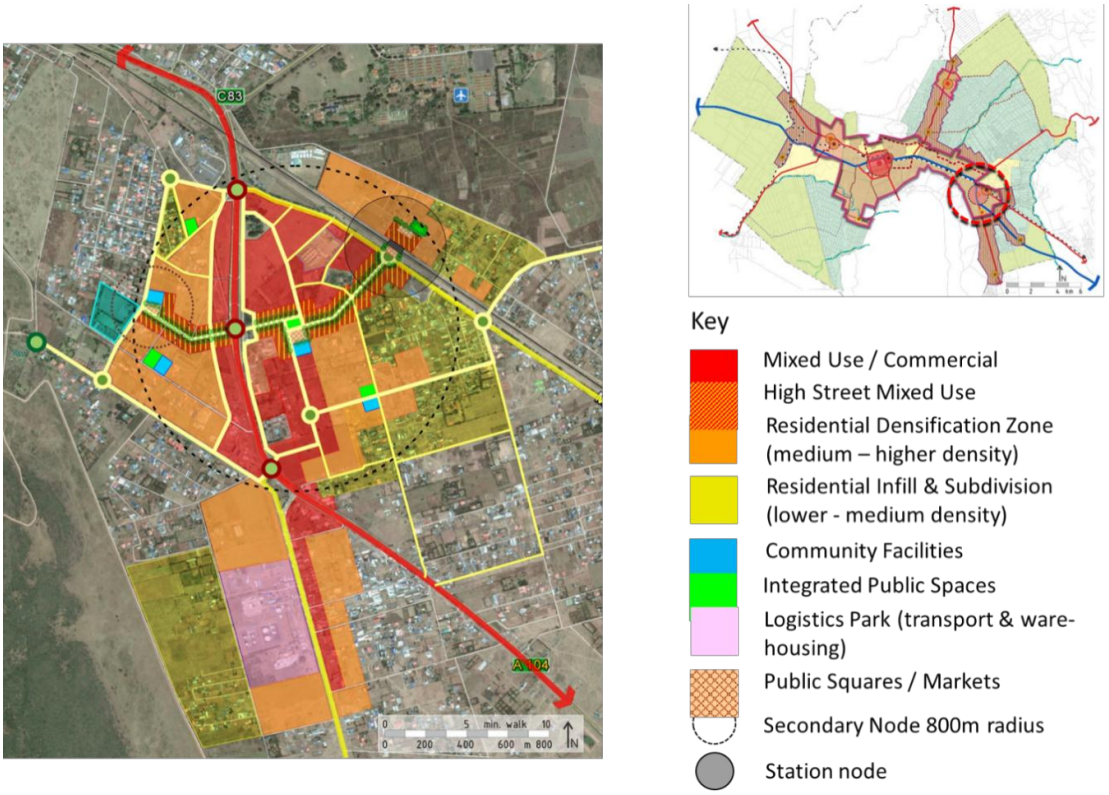


Figure 39: Secondary Nodal development plan for Barnabas and Lanet

6.3 Urban Design Components / Guidelines

6.3.1 Activity Streets

The Design Framework for the CBD provides a functional and environmental hierarchy of streets. Among these there are mixed use boulevards and mixed use activity spines and what could be classified as activity/high streets. The intended amenities and character for these movement routes should be guided by the following principles.

- **Accessibility and Movement**
  - Street networks should be permeable to minimize travel distances, provide a choice of routes, maximize access to available facilities and services and assist people to find their way conveniently and easily.
  - The design of the street should consider multiple modes of movement (motorized and non-motorized)
  - Separate cycle paths should be indicated with street markings or by clearly displayed and well-designed signage
  - Pedestrian and bicycle routes should be direct, continuous and well lit

- **Intersections**
  - Control vehicle speeds by introducing appropriate sidewalks designs at intersections to narrow the carriageway (creating 'pinch-points') with street markings and signage
  - Use differently textured materials to mark crossings and for traffic calming

- **Activity Concentration**
  - Retail
  - Office
  - Entertainment
  - Work
  - Service
  - Commercial
  - Industrial
  - Community facilities
  - Residential development

- **Topography, views and vistas**
  - Design the street in response to topographical features
  - Protect and enhance views and vistas along particular movement routes

- **Edge Condition and Building Frontage**
  - Promote ground floor activities open to street edges
  - Building corners facing pedestrian paths to be accentuated
  - Urban Perimeter block typologies preserved
  - Reduction of pavilion architectural typologies
  - Dense built form with building heights between 4-5 storeys

- **Street and Public Realm Functionality**
  - Create manageable and functional public space
  - Provide a balance between hard and soft space
  - Encourage a well-defined interface between public and private space

- Introduce a network of public spaces along the street
- Provide sustainable and functional Street Furniture and lighting design
- Reinforce local identity by accommodating activity patterns that have evolved organically
- Encourage the development of landmark buildings in strategic locations to reinforce a sense of place
- Public Realm to serve community needs
- Define setbacks and build to line principle along the entirety of specific streets, to maintain a harmonious edge condition
- Introduce landscaping and tree planting to reinforce the character of streets

Currently Kenyatta Avenue is flanked by mixed use buildings complemented by appropriate architectural typologies providing sidewalk overhangs that create a conducive environment for pedestrian movement and therefore support for retail facilities. Nevertheless, motorised and non-motorised forms of movement which support the functionality of the street are unplanned.

The images overleaf reveal a possible scenario whereby modes of movement along Kenyatta Avenue can be redesigned. The following design considerations have been made:

- Dedicated lanes for motorised and non-motorised movement
- Tree lining creating a sense of comfort for pedestrians
- Landscaped edge separating pedestrian movement from bicycle movement
- Sidewalk cafes
- Clearly defined ground floor retail frontage
- Textured sidewalks

Figure 40: Vision for Kenyatta Avenue

6.3.2 Boulevards and Public Space (Figure 23)

The government boulevard proposed in the CBD is aimed at providing a pleasant environment around civic uses. As such, the street and Civic Square character should promote walkability and incorporate the following features:

Street Character

- Streetscapes to achieve a sense of enclosure for the street itself. This could be implemented through tree planting and consistent landscaping which over time will define the street character and quality of environment encouraging civic uses and sociability.
- Achieve visually contained streetscapes by:
  - Spacing street trees so that their canopies will meet when mature and read as a continuous linear element of the street.
  - Using a continuous line of landscaping hedging and well design transparent fencing (with consistent height) along the front property boundaries. The built form can also be guided to form a more continuous and responsive edge to improve passive surveillance and enhance the urban character an expertise.

.

- Maintain generally consistent built to line or setbacks of buildings where possible.
- Identify heritage buildings and zones that require specific guidelines to retain and reinforce the uniqueness of these places.
- Encourage the use of specific design guidelines regarding the use of fences and walls to maintain visual continuity.
- Provide well define short term street parking specifically to retain activity along the high streets and retail lanes.

Civic Square Character

- Allow buildings to frame public spaces space
- Position trees strategically promoting pedestrians to pause and engage with the space.
- Promote passive surveillance over squares
- Maintain uniform architectural character language around civic square

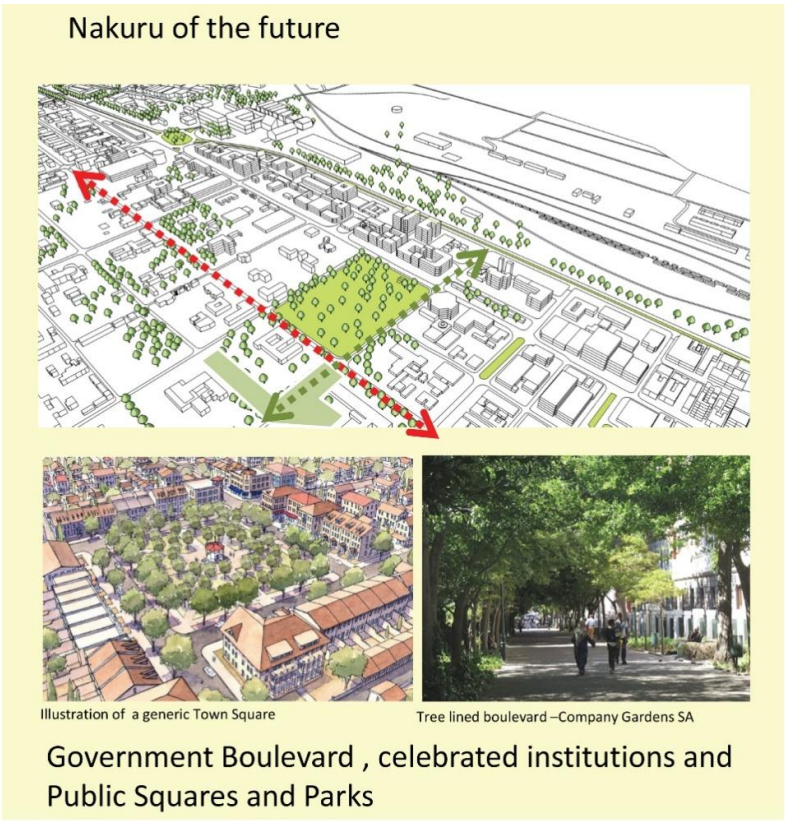


Figure 41: Proposed Government Boulevard Character

6.3.3 Markets/ Transport Termini

The existing central Matatu terminus is not planned. It thus requires detailed design and restructuring to upgrade the general environment and provide a more efficient, safe and convenient facility for commuters and Matatu operators. In order to do this, there is need for a further detailed study. The principles below are critical to consider for further and future improvement of these facilities:

Access

- Provide a seamless connection between the public transport facilities and spaces for trading
- Provide legible and well managed pedestrian routes connecting all public facilities
- Accommodate main vehicular movement access points from the access road and not from the mobility spine
- Differentiate pedestrian and vehicular access points
- Encourage the facilitation of easy circulation of vehicles and pedestrians

Land use

- Maximise the opportunities for commercial and retail uses framing the transport facilities
- Accommodate public spaces connecting the different sub-zones within the precinct.
- Encourage the introduction of a range of robust public spaces accommodating other uses and activities such as small events and local entertainment when markets are not in operation.
- Incorporate public facilities such as clinics, libraries, day-care centres and others that can support the daily requirements of commuters and others.

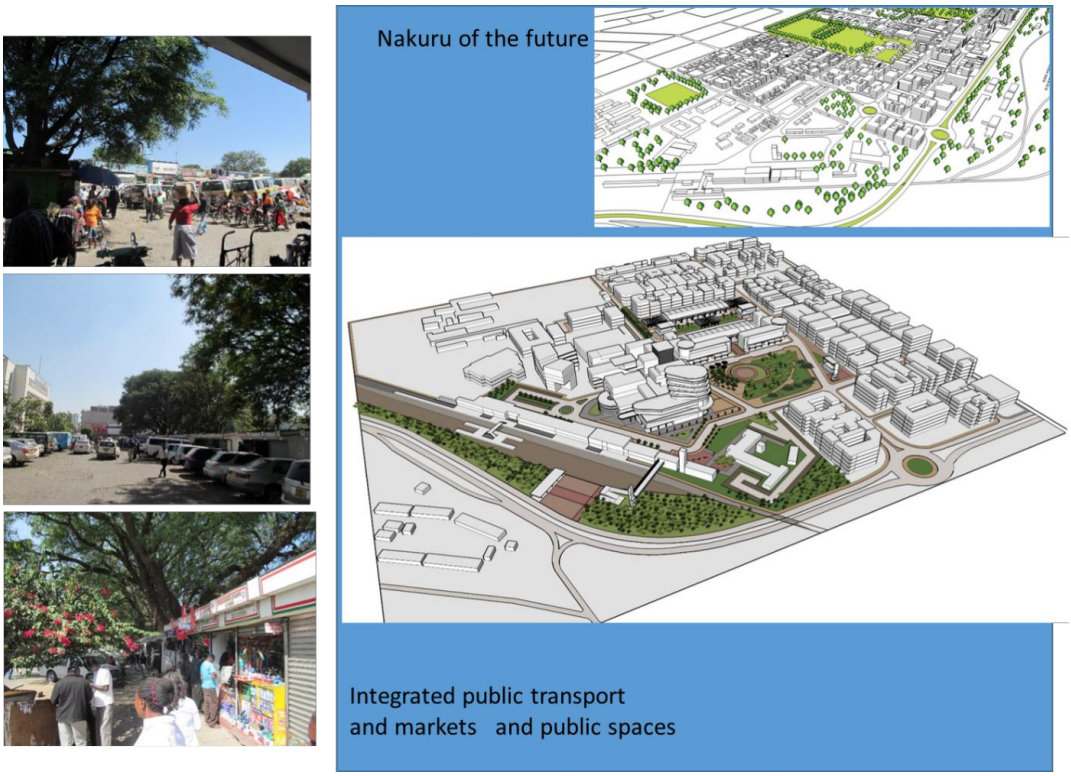
Edge condition

- Allow buildings with active ground floor edges to frame transport and market spaces
- Provide well landscaped edges facing the mobility spine with strategically located vehicular and pedestrian access points.

Massing

- This location presents the opportunity to build a landmark building forming the entrance to the CBD.
- Promote the use of edge buildings rather than pavilion buildings to define the public realm.

The figure below depicts medium scale transport facilities designed to integrate small retail and trading spaces.



CBD STRATEGIC INTERVENTIONS

Figure 42: Central Park and Legible Urban System

6.3.4 Integrated transport node and proposed TOD Precinct

The following figures depict a possible scenario for the restructuring of this strategic area which is currently accommodating most of the public transport and market facilities within the CBD.

The precinct is defined by the railway line to the east, Geoffrey Kamau Ave (A104) to the north, Gusin Road to the west and Mosque Road to the south.

Mburu Gichua Road provides direct access to the precinct from the A104. Kenyatta Avenue, Station Road and Market road form a loop providing access to most of the transport related sites.

Aerial Photograph

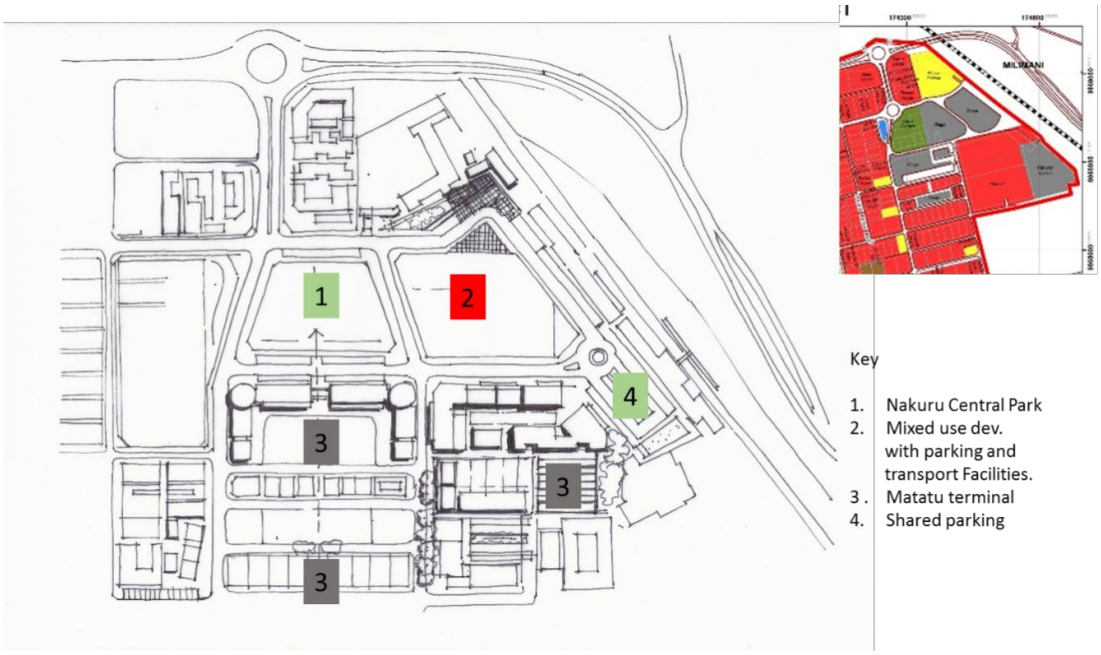


Figure 43: CBD TOD Precinct Proposed Design Concept

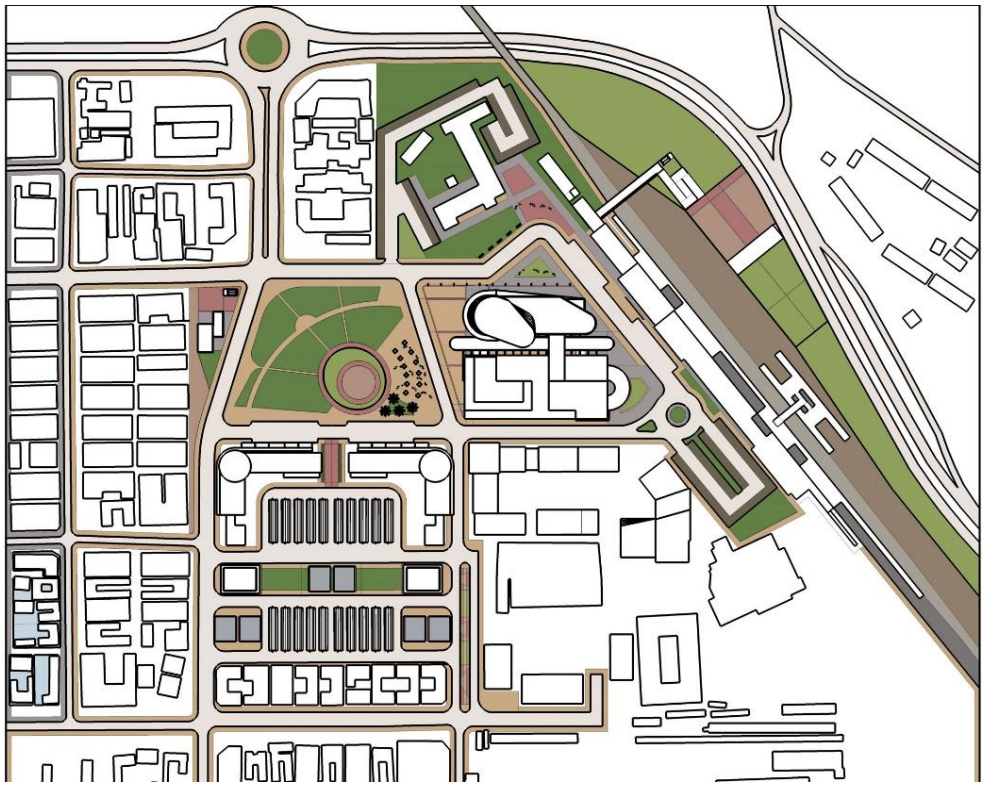


Figure 44: Proposed TOD Precinct Plan

6.3.5 Development Objectives

As indicated the key development objective refer to the following components and are combined to create a well-balanced and a high performance environment.

Transport

- Provide a well-planned and integrated public transport hub with all supporting facilities to accommodate all forms of public transport
- Maximise the use of the transport related sites through well planned and managed movement and operation systems
- Learn from best practices and design for safety, efficiency, flexibility and growth
- Provide a legible movement system which is convenient and easy to navigate for commuters, visitors and the general public
- Provide public amenities to support transport operators and other users

Densification/intensification

- Encourage mixed use development, complementing and extending what exists in the CBD
- Enhance the development value of sites close to the railway station to attract flagship projects combining commercial , retail , public parking and hospitality related uses
- Encourage the optimisation of land uses within the precinct promoting infill development, and adaptive reuse or redevelopment of underutilised building structures
- Promote the development of suitable and affordable residential accommodation including a range of building units and building types, built according to the national building standards

Markets Expansion

- Provide well suited market trading facilities to accommodate different scale enterprises
- Encourage the establishment of equitable and transparent public sector driven and self-management systems to support economic development and growth of the sector
- Brand the precinct to promote innovation and expansion of local business
- Provide economic incentives, training and business support to reinforce good business practices for small operators with special focus on youth development

Culture and Heritage

- Protect heritage buildings and promote their up keeping and maintenance
- In conjunction with the tourist operators promote heritage trails, tours and other activities to raise public awareness regarding significant heritage buildings and sites.

Public Environment Upgrade

- Create a well-developed park separated from trading and transport uses to ensure that is accessible and well used by the entire population
- Encourage the planting of indigenous trees along main pedestrian routes and park spaces
- Provide spaces for active and passive recreation to encourage social interaction
- Involve communities by encouraging participation with the design and development of the public space to enhance ownership and protection of the environment

Safety and security

- Devise suitable mechanisms to create a safe and secure environment taking into account the most vulnerable sectors of the community i.e.: women, the elderly, children, people with disabilities etc.

The following figures illustrate the potential of the area to become a well-integrated multifunctional space serving the greater Nakuru area, providing spaces for new developments which reflect the aspiration and potential of the city

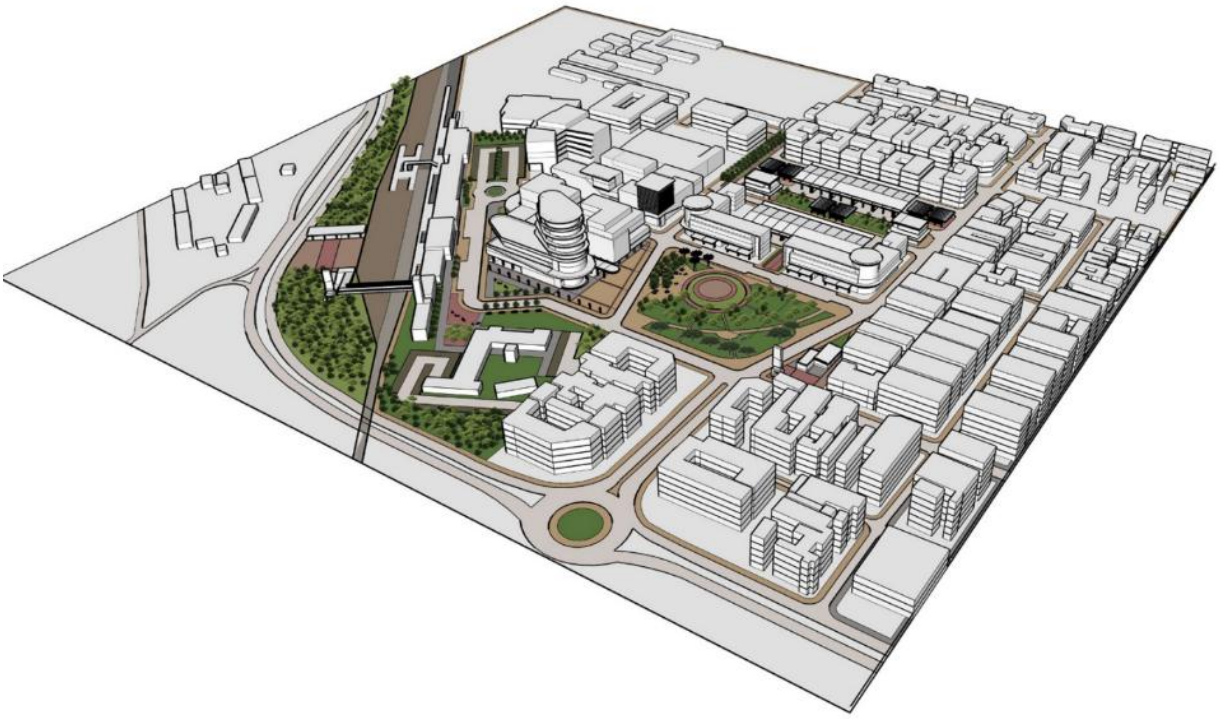


Figure 45: View from Kenyatta Avenue Looking South

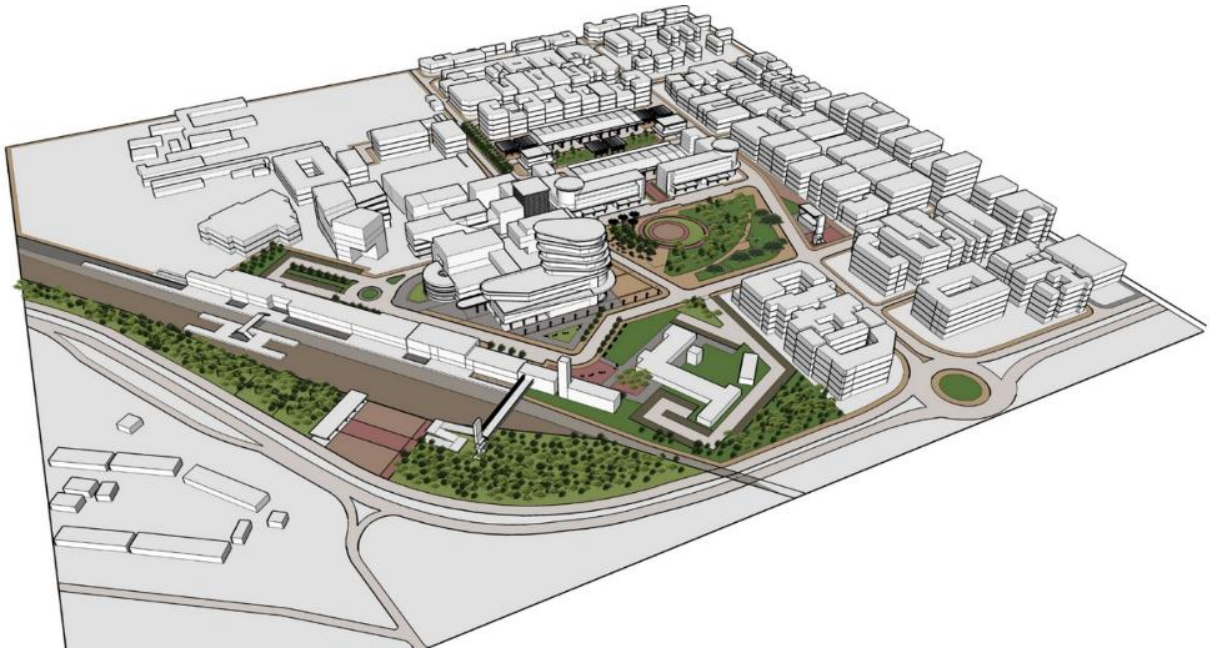


Figure 46: View from Main Access Road looking south

Figure 47: View of the Park towards the Train Station

Figure 48: Aerial View of Proposed TOD Precinct

6.3.6 Neighbourhood Planning

The strategic plan proposes the densification and intensification of the central neighborhoods with the objective of:

- Making better use of well-located urban land
- Improving living conditions
- Upgrading service provision
- Providing social facilities accessible to residents
- Increasing densities around public transport facilities

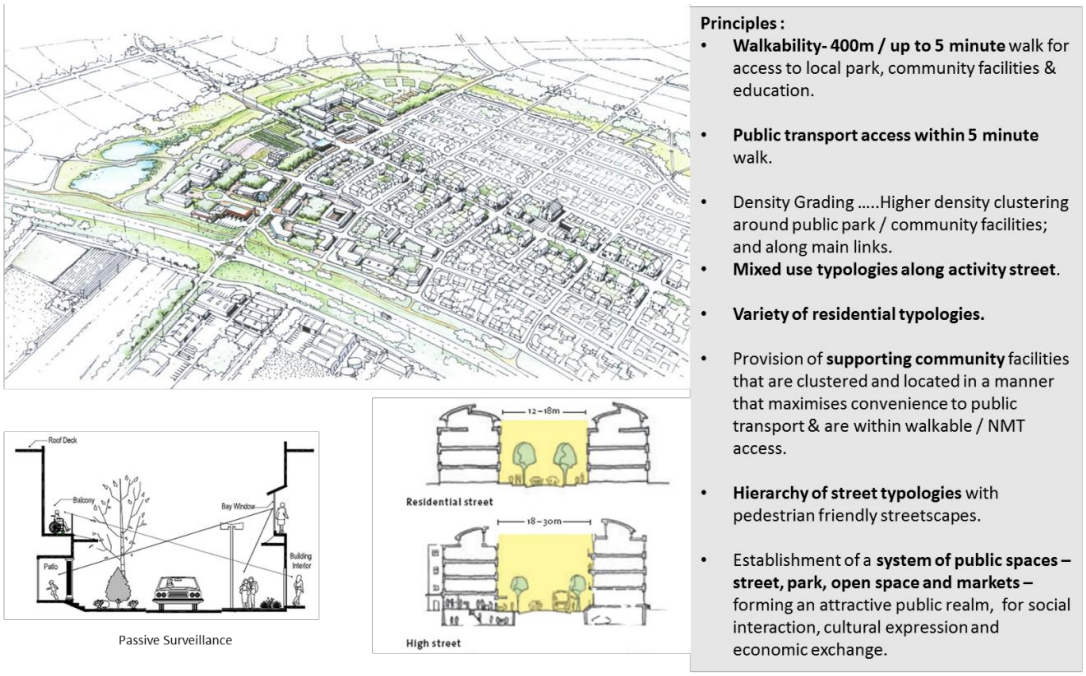


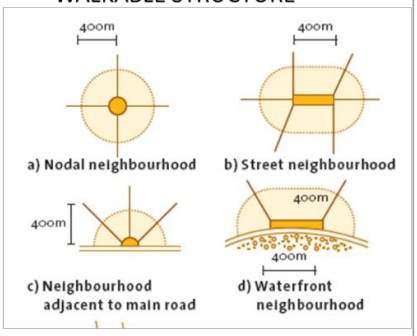
Figure 49; Integrated and Sustainable living Environments

The Density matrix overleaf indicates standards that could be applied in defining residential densities to guide interventions and inform further development controls to support neighbourhood upgrade and intensification.

Table 8: Density Matrix

			Option 1	Option 2	Option 3
Car Parking Provision			**High** 2-1.5 spaces per unit	**Moderate** 1.5-1 space per unit	**Low** Less than 1 space per unit
Predominant Housing Type			**Detached & linked houses**	**Terraced houses & Flats**	**Mostly flats**
Location		Setting			
Site within Town Centre 'Ped-Shed'	6 Accessibility index 4 2	Central			240-1100hr/ha 240-435 u/ha Ave. 2.7 hr/u
		Urban		200-450 hr/ha 55-175 u/ha Ave. 3.1 hr/u	450-700 hr/ha 165-275 u/ha Ave.2.7 hr/u
		Suburban		240-250 hr/ha 35-60 u/ha Ave.4.2 hr/u	250-350 hr/ha 80-120 u/ha Ave. 3.0 hr/u
Sites along Transport Corridors & Sites close to a Town Centre 'Ped Shed'	1	Urban		200-300 hr/ha 50-110 u/ha Ave. 3.7 hr/u	300-450 hr/ha 100-150 u/ha Ave. 3.0 hr/u
	2	Suburban	150-200 hr/ha 30-50 u/ha Ave. 4.6 hr/u	200-250 hr/ha 20-80 u/ha Ave.3.8 hr/u	
Currently remote sites		Suburban	150-200 hr/ha 30-650u/ha Ave. 4.4 hr/u		

WALKABLE STRUCTURE

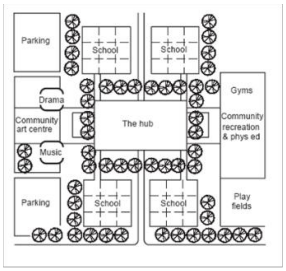


A widely used benchmark is for mixed development neighbourhoods to cover a 400m radius, equating to about five minutes walk. This translates into 50 hectares. Source- Urban Design Compendium, 2000.

Convenient Access

- Walkability- 400m / up to 5 minute walk for access to local park, community facilities & education.
- Walkable access to local convenience retail; public markets and public transport facilities; within 400m / 5 minute walk.

SHARED FACILITIES



Example of Facility Clustering; Source: CSIR Human Settlement Planning Guidelines, 2000

INTEGRATED ECONOMIC ACTIVITIES

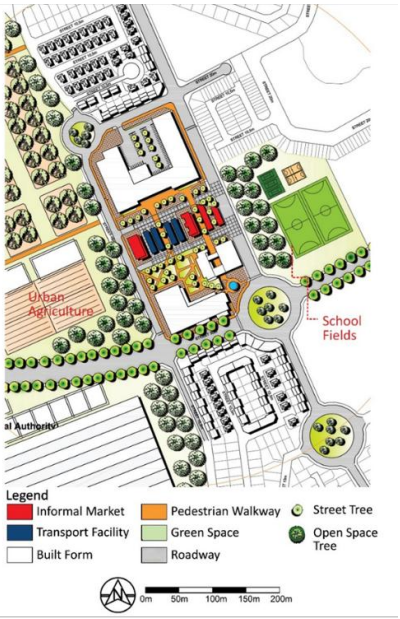


Figure 50: Integrated Sustainable Neighborhoods

Table 9: Principles for Developing Sustainable Neighborhoods

GENERAL PRINCIPLES	PRINCIPLES FOR RESIDENTIAL AREA	PLANNING SUSTAINABLE SETTLEMENTS
• Strengthen environmental sustainability • Encourage economic potential & linkages with the rest of urban or rural system • Development of cohesive & vibrant communities In addition housing delivery should provide: • Space for small-scale entrepreneurial activities • Convenience shopping • Home-based employment opportunities • Access to finance for home improvement • Potential for rental and small landlords	Residential areas should be designed to accommodate additional people by promoting : • Land efficiency • Various housing options • Sustainable livelihoods – support micro- enterprises etc.	Sustainable settlements require the careful planning of all the components of the settlement to ensure best performance, including: • Road layout and the orientation of dwellings • Site sizes and shapes on the orientation of dwellings • Solar access of individual buildings and yards • Service arrangements to minimise bulk service runs • Treatment of road verges to accommodate NMT system and support pedestrian movement • Access to green areas • Amelioration of environmental challenges, ie fire, floods etc. • Promotion of safety & security

The following two figures illustrate the application of these principles in the context of Langa Langa. They demonstrate the potential for infill development along Kanu Street and the creation of a community spine connecting all existing community and educational facilities that could provide added support to an increased residential community.

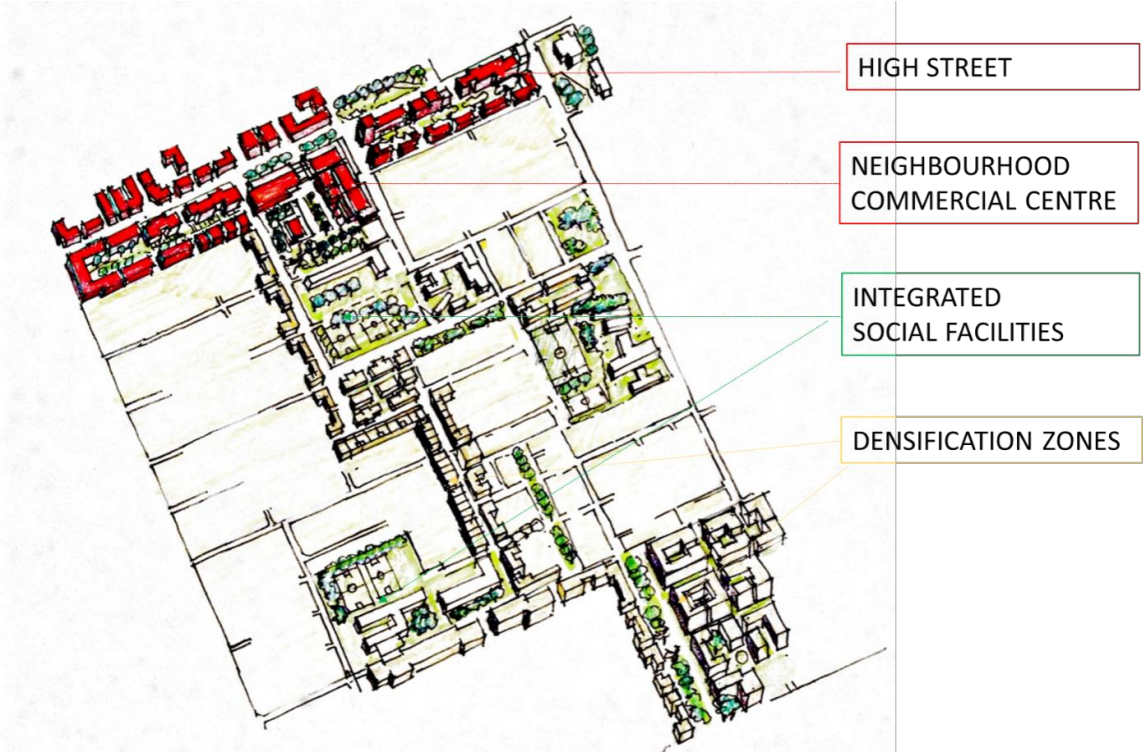


Figure 51: Integrated and Sustainable Neighborhoods

Figure 52: Proposed Built Form

6.3.7 High Street Development

Kanu Street forms an important link between Flaming Road and West Street and has the potential to become a high street with unique character and business opportunities. The densification along it will require the introduction of clear guidelines to ensure that it develops as a tourist destination place as well as serving the local community.

The following figure illustrates the current conditions while figures 54 to 56 indicate how it could be guided to accommodate:

- Densification through Infill development
- Onsite parking
- Promote the creation of internal outdoor spaces
- On street parking
- Cycling lanes
- Building massing and articulation

Figure 53: Existing Conditions along Kanu Street

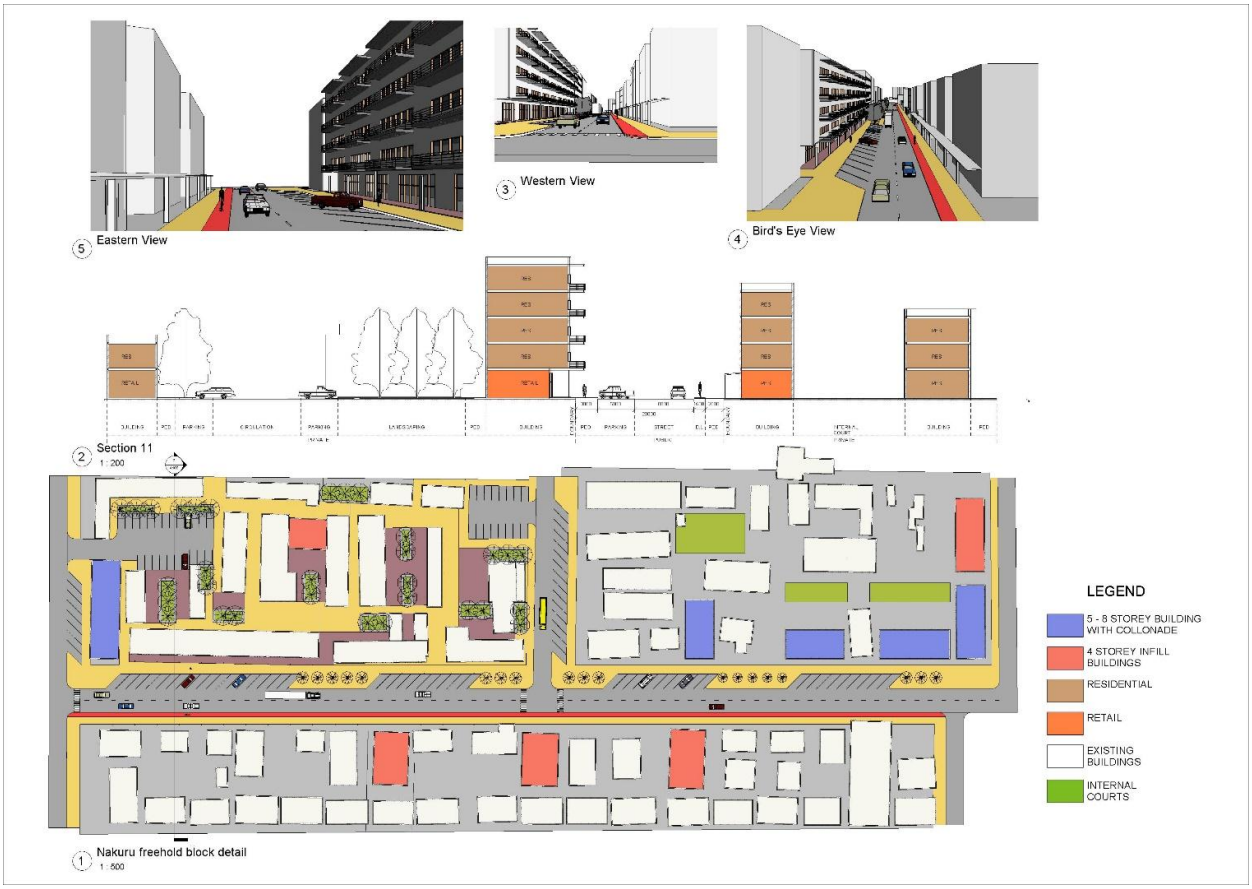


Figure 54: Proposed Intensification and Densification along Kanu Street

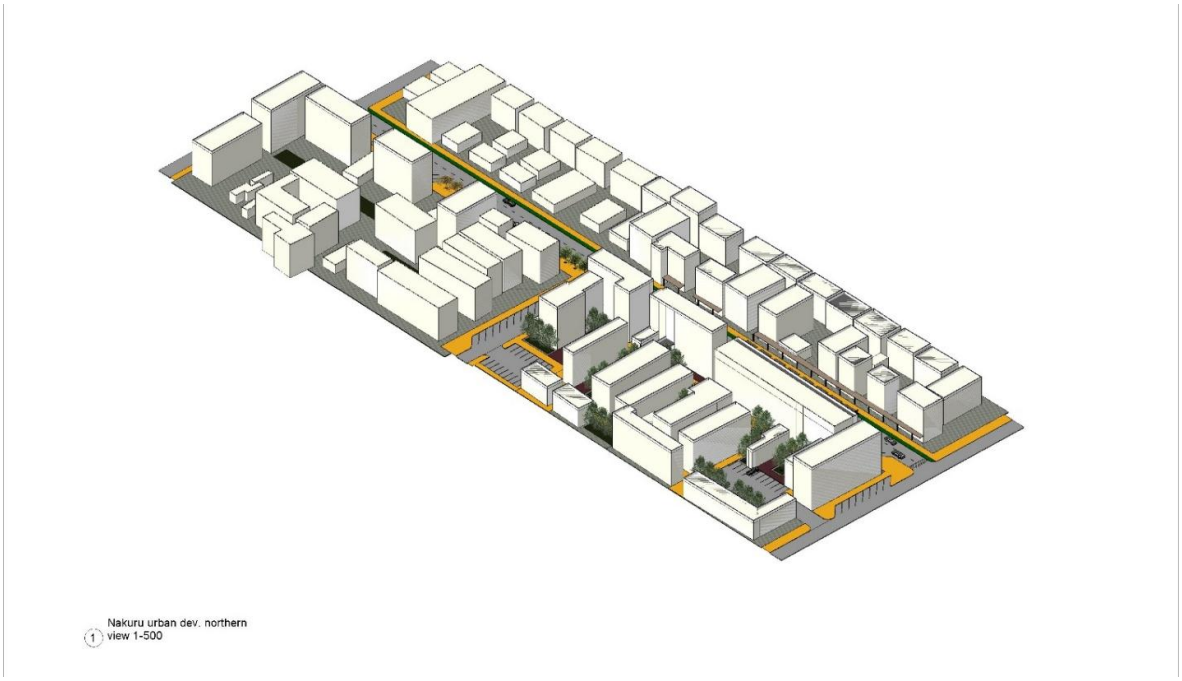


Figure 55: 3D Modelling of Proposed Densification, Showing Onsite Parking Provision

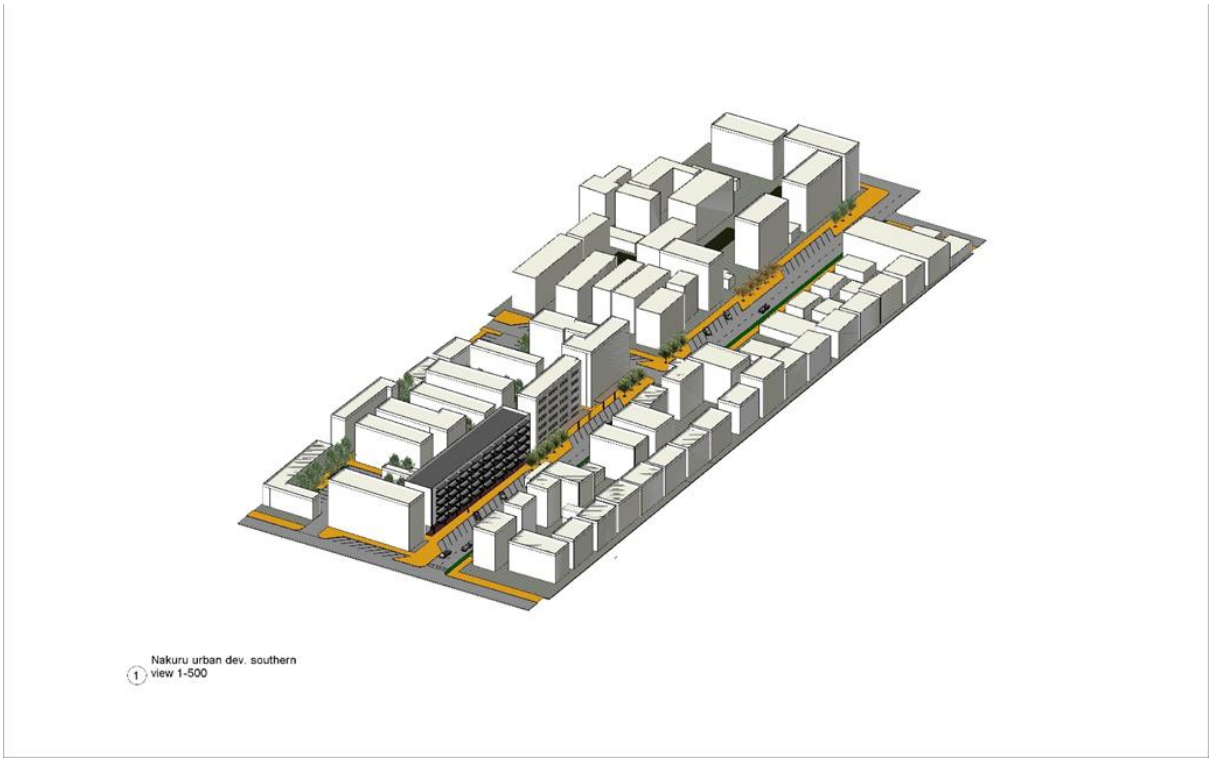


Figure 56: Massing Proposal for Kanu Street, Showing Intensification and Street Parking

6.4 Key Projects / Interventions

The following table describes the policy and project interventions related to the public environment upgrade with regard to its long term performance.

Additional actions will be incorporated to guide development over time including the need to introduce dedicated agencies or departments to encourage Private-Public partnerships that can facilitate and better define, implement and maintain these type of interventions.

URBAN DESIGN	OBJECTIVES	STRATEGY	ACTION PLANS	ACTOR	PERIOD
Locality	OBJECTIVES Identity	STRATEGIES Performance	ACTION PLANS Elements	ACTORS Management	
Local areas & Precincts	• Green Integrate the natural and made environment through a well-connected public space system • Sustainable Promote a balanced land use distribution within each local area • Cosmopolitan Celebrate and reinforce diverse cultural sites and places • Safe Improve passive surveillance through design and community participation	• Encourage the introduction of "Adaptable parking solutions" to reduce impact of structure parking. • Encourage the placement of retail and public uses on ground floor and extend trading and hours to improve security through passive surveillance. • Reinforce local character by promoting "good building practices"	• Develop Aesthetics guidelines per character areas within each precinct. • Introduce "soft" Incentives and campaigns that promotes "good building practices" • Prepare Information, Marketing and Communication plan per precinct showcasing their competitive edge.	Public/Private initiatives	2-5 years
Street	Create walkable streets and enhance character, comfort levels, safety and security. Provide tree lined, shaded sidewalks on both side of the street Remove visual pollution	• Categories according to activities to enhance character. • Design speeds for safe pedestrian and bicycle travel • Provide visible and well located bicycle storage • Street signage code	• Develop a well-integrated way - finding and signage policy and manual in response to the Integrated Transportation plan	Public/Private initiatives	0-2 years

Buildings	Promote the development of robust and street facing buildings of diverse style to create interest along the streets. Encourage the design, construction and retrofit of buildings that utilize "Green Building practices". Promote the use of building materials that reduced the "Heat island effect ".	• Encourage buildings to have entrances accessible from the sidewalks and activities overlooking the public space to improve surveillance. • Develop building codes that provides human scale between building height to street width along main pedestrian routes. • Promote the use of building materials that reduced the • " heat island effect"	• Build awareness in promoting the use of building elements that improve comfort and safety along the streets. Such as the use of arcades, cantilevers, pedestrian ramps, etc.	Public and Private Sector	0- years
Public Spaces	Enhance the quality and performance of the public spaces to serve specific needs and requirements. Encourage the use of public owned land for local food production, education and training.	• Provide a balanced distribution of public spaces especially within high density residential areas. • Promote the use "water efficient" indigenous landscaping. • Introduce innovative solutions for the design , implementation and management of public spaces • Promote community ownership over the use and management of public spaces	• Develop awareness campaigns regarding the importance of public spaces in term of the social and cultural life of the community. • Establish a programmes to activate existing public spaces with the participation of the creative industries. • Consolidate urban agriculture policy to support growing population i.e. food gardens etc.	Religious Institutions, NGO's , Public and Private Sector and Arts and Culture departments	0-5 years

6.5 Recommendations

The Urban Design Framework described in this section relates closely to the development philosophy and interventions presented in other sections. The key for the success of any plan is to lay the foundation for the introduction of appropriate implementation mechanisms that can drive the various stages of the process through time.

Community consultation and engagement is an ongoing process which needs to be supported by allocating adequate resources to maintain the engagement and flow of

information. This could be achieved through the creation of a dynamic and target communication strategy that can make use of current information and communication tools.

The intention is to concentrate not only on long term interventions but rather on the introduction of “Trigger projects or catalytic projects ” and actions that can be used to mobilise important sectors of the community to get them involved and affect change in small, incremental steps.

Further action plans are recommended for the following sites

I. Urban renewal in the old public housing estate
II. Slum upgrading schemes
III. Menengai GDC industrial Park
IV. Menengai /Engashura informal settlement
V. Milimani Railway Land

CHAPTER SEVEN

PLANNING POLICIES

Planning policies serve to manage and promote appropriate changes in land use, regeneration, transportation, housing and employment opportunities. They also promote the general improvement of the environment. The policies hence provide the framework for making planning decisions.

7.1 Parking Policy

The purpose of this policy is to regulate parking requirements, provision and standards in Nakuru town.

7.1.1 Issues

- Inadequate parking supply within the CBD.
- Uncontrolled parking on road sides. Vehicles are parked along the road obstructing entrances to commercial premises and impeding smooth traffic. With inadequate parking, majority of developments rely on road reserves for this purpose.
- Road side parking by transit trucks.

7.1.2 Objective

The objective of the parking policy is to provide guidelines that will increase the provision of parking facilities by developers. It seeks to ensure that:

- The demand for parking spaces is met
- Access needs of new developments are properly provided
- The needs of different road users are equitably addressed
- The impact of new development on congestion is minimal

7.1.3 Types of Parking Facilities

As regards type of parking facilities, various options are available. These are outlined below:

1. Basement Parking

This is private parking provided on the basement level of high rise buildings. It is usually provided in commercial and residential premises. These are provided in plots exceeding 0.1 hectares and a width span of 30m. These facilities are exclusively private and they are regulated by the land owner.

2. Roadside Parking

Roadside parking is usually provided within public road reserves. It is normally regulated by the local authorities. It comprises angle or flash parking. A standard parking bay measures 15 – 35 square metres per vehicle.

3. Silo Parking

This refers to a high rise building that is almost exclusively dedicated for parking. They are private developments that are regulated by the land owner. In cases where there are offices in the same building, these may occupy up to 10% of the building, usually the upper floors.

4. Open Parking Yards

These are private facilities comprising mostly of an open plots that are used for parking. The facilities are regulated by the land owner.

7.1.4 Proposals

The provision of parking facilities should be related to the level of activities generated. For every 100 m^2 of land in the CBD, a minimum of 1.5 parking space may be provided except where basement parking is provided. For small centres, a car park may be provided for every 500 m^2 of developed space. The minimum plot size should be 0.05 hectares. This will cater for the architectural design, street landscape, natural lighting and limited parking. A standard of 15-35 m^2 parking spaces per car is recommended.

7.1.5 Regulations

Type of Development	No. Of Parking
o Commercial plots > 0.1 ha /Office space	1 Parking bay per 1000 sq. ft.
o Commercial plots < 0.1 ha	1.5 parking space for 100 m^2
o 3-4 b/rm flats	1 Parking bay for each flat
o 2 b/rm flats	1 parking bay for each 2 units
o 1 b/rm flats	1 Parking bay for each 4 units
o Town houses	1 Parking bays for each unit
o 3-4 b/rm bungalow/maisonette	1 parking bay per unit
o 2 b/rm bungalow/maisonette	1 parking bay for 2 units
o 1 b/rm bungalow	1 Parking bay for 4 units
o Hotels/ guest houses	1 Parking bay for 5-8 beds
o Hospital	1 Parking bay for 5-10 beds
o Industrial	1 Parking for every 10 workers

7.2 Advertisement Policy

Nakuru County does not have a comprehensive policy on outdoor advertising. Advertisements within the area therefore are not subjected to any clear approval process. They are generally unregulated and so they undermine aesthetics. This is clearly evident within the main commercial areas and major road junctions.

The proposed outdoor advertising policy will provide guidelines on how to assess outdoor advertising applications and the acceptable use of urban outdoor space whilst incorporating socio economic aspirations, visual aesthetics and environmental conservation. It will also complement the existing guidelines, if any, regarding the development and approval of advertisements.

7.2.1 Policy Objectives

The objectives of this policy are to provide guidelines for the following:

a. Regulation of outdoor advertising
   - Suitable locations,

  - Allowable dimensions
  - Message (deter nudity, violence, sexual overtone)

b. Approval procedures
c. Introduce an efficient and reliable advertising revenue collection

7.2.2 Types of Advertisements

The types of advertisements that require regulation includes the following,

- Billboards;
- Wall wraps;
- Sky signs;
- City clocks;
- Display flags;
- Suburb signs;
- Sign boards;
- Banners and Posters;
- Hand bills/Fliers;
- Airborne advert;
- Branded umbrella / parasols;
- Landscape Scheme;
- Street displays;
- Multi motion neon signs;
- Film/ Video shooting;
- Guard Rail Advertisement;
- LED screen advertisement;
- Construction site boards;
- Wall/ Window branding;
- Advertisements on canvas/ canopy
- Festive-decorations(on walls, windows, canopies e.t.c); and
- Directional signs (inside plot/ free standing) Multi directional signs (per slot);
- Signs above /sitting on canopy (Illuminated /Non Illuminated);
- Sky signs/ Wall wrap 20 Ft above the ground and over properties;
- Advertisement by loudspeaker (P. A system) per day;
- Funfair / fete/ Acrobatics;
- Wall painting adverts on temporary premises (Kiosks, litter bins;
- Hoarding
- Advertisement on hoarding;
- Change of use boards;
- Decorations/branding of motor vehicles;
- Tri face sky signs;
- Street light pole advertising;
- Business encroachment within street pavement/shop corridors (Canopies)

RECOMMENDED GUIDELINES	
Advertisement type	**Location And Site Requirements**
Clock Advertisement	• To be located on roundabouts, road junctions, bus stops, outside supermarkets, parking etc. • Maximum size to be outer cube (1140 x 1540) mm, inner cube (960 x 1350). • Application and license fees to be paid as will be determined by the County Government
Street Name Advertisement	• To be located on road junctions • The size should not exceed 1 sq. m (1000 mm x 1000 mm). Product advertisement model is not allowed. • Application and license fees to be paid as will be determined by the County Government
Advertisement On Billboards	• Billboards are not allowed on road reserves. • A distance of 150 m be maintained between subsequent billboards. • Colours of billboards to conform to those of adjacent areas. • No billboards to be allowed within the main commercial area in Nakuru. • Billboards to have a height of 5 M above ground. • Standard billboards to have a size of 12 x 10 M • Big billboards (20 x 10 m and 10 x 30 m) to be put up in the outskirts of the town. • Billboards should not to hang on road reserves • Billboard applications be accompanied by structural drawings • Application and license fees to be paid fees as will be determined by the County Government I • Billboard application to be prepared by a registered Physical planner. Planning brief and PPA 1 to accompany application
Advertisement On Bus Shelter	• Minimum size should be 5595 mm x 1200 mm • Two bus shelters are allowed per stage. • Colours of a new bus shelter to conform to those of the existing one. • Application and license fees to be paid as will be determined by the County Government
Sale Sticker, Decorations on Wall, Windows, Canopies etc	• One stickers per windows and only A4 size is allowed. • Colours to conform to those of the building. • Shall not be placed less than 8 feet from the ground level. • Application and license fees to be paid as will be determined by the County Government
Signboards	• Different sizes should be allowed as long as the length does not exceed that of the building. • The size should not exceed 5 ft. x 2 ft. • Different sizes not allowed for the same building • The height shall not be less than 8 ft. from the ground level. • Application and license fees to be paid as will be determined by the County Government
Directional Signs	• Directional signs located on road reserves of non-classified roads to be 600 mm x 1200 mm • Multi-directional signs allowed on road junctions only and should be 150 mm x 1500 mm. Each plate to be paid individually. • Directional signs on road junctions leading to classified roads should be off

	classified road reserves. Directional signs side road junctions to be placed inside the plot as free standing.
Sitting on canopy (Illuminated and non-illuminated signs)	• Different length sizes allowed as determined by the size of the canopy. • Shall not be below 12 ft. from the ground level. • Application and license fees to be paid as will be determined by the County Government
Sky sign (Above canopy and over anything above 12 ft. properties)	• To be 12 ft. above the ground. • Structural integrity report of buildings to be mounted with the structures to be submitted by registered engineers. • Structural drawings for the proposed advert be submitted to the County Government • To pay application and license fees as will be determined by the County Government • Planning brief and PPA 1 to accompany application
Banners	• Banners on road reserves to be 9000 mm x 750 mm in size. • To be used to advertise events only. • Application and license fees to be paid as will be determined by the County Government
Posters	• Maximum size to be A3. • To be placed at designated locations such as bus stop parking, supermarkets, schools, churches etc. • All public buildings, commercial buildings and apartments blocks to provide space for posters board. Preferably, poster board erected on ground shall not exceed 3000 mm (height) by 1500 mm (width) • Application and license fees to be paid as will be determined by the County Government
Handbills	• Maximum size to be A5 • Not to be spilled on ground • Application and license fees to be paid as will be determined by the County Government
Construction site boards	• The size to be 150 mm by 150 mm • Application and license fees to be paid as will be determined by the County Government
Bridge Advertisements	• The face of the bridge should not be completely covered by the advert. Gaps of 400 mm should be left in between. • Bridge construction for advertisement purpose to be done in consultation with public works classified roads and the County Engineer. • Application and license fees to be paid as will be determined by the County Government
Airborne Adverts i.e. Airplanes, balloons etc.	• Application to be made to the County Government • Application and license fees to be paid as will be determined by the County Government
Display flags	• Allowed for public buildings, hotels, international corporate etc. • Should not be below 15 ft. Only cloth material of 1 m sq. is allowed. • Application and license fees to be paid as will be determined by the County Government
Branded Umbrella	• Permanent umbrellas not allowed on the streets • Application and license fees to be paid as will be determined by the County Government

Outdoor functions a) Open public areas/grounds b) Fun-fair/fete/acrobats c) Open air (preaching/processions /movie shooting) per day.	• Must not obstruct pedestrians, vehicles movement • Sounds not to exceed sound pollution levels • Application and license fees to be paid as will be determined by the County Government l
Landscape Scheme	• Pedestrian's walk way of 1200 mm to be observed and the size of the drainage to be determined by one road. • Road side trees to have a spacing of not more than 15 meters. • Application and license fees to be paid as will be determined by the County Government
Bus Stop Advertisements	• One advert per bus stop. • Maximum size 1 sq. m (1000 mm x 1000 mm) • Application and license fees to be paid as will be determined by the County Government
Change of User Board Per Fortnight	• The size should not to exceed 1200 mm x 600 mm. • To be placed on or against the fence of the plot • Application and license fees to be paid as will be determined by the County Government
Lamp Post Advertisements	• To be allowed on every fourth post • Maximum size to be 1 sq. m (1000 mm x 1000 mm) • Application and license fees to be paid as will be determined by the County Government
Wall Painting Adverts on Permanent Premises	• Allowed in commercial and industrial zones only. • Any painting above 10 sq. m to pay Ksh. 500 for every additional sq. m • Application and license fees to be paid as will be determined by the County Government
Advertisement on canvas	• Colours to conform to those of the surrounding areas canvas. • Lengths should not exceed the building heights. • Application and license fees to be paid as will be determined by the County Government
Advertisement on Hoarding	• Hoarding to be undertaken along the perimeter fence of construction sites. • Advertising agencies to submit copies of approved building plans for construction on site. • Advertising material not to exceed the height of hoarding mabati. • Colours to conform to those of the surrounding areas • Application and license fees to be paid as will be determined by the County Government
Suburb and Public Facility Signs	• Only one sign per facility is allowed. • Structure sign not to exceed 2700 mm x 1200 mm. • Advert size not to exceed 1600 mm x 1200 mm • Application and license fees to be paid as will be determined by the County Government
Penalties	• To be determined by the County Government Charges for collection of illegal signboards and other displays per item • Penalty for non-payment of advertisement fees

7.2.3 Outdoor Hoarding and their Content Criteria

The policy will rely upon self-regulatory controls within the advertising industry to enforce minimum advertising standards. This notwithstanding, the County may take action to modify or remove any Advertising Device that contravenes the Advertising Industry's Code of Ethics, (refer to the List of Negative Advertisements below) or that otherwise causes a traffic hazard.

Advertisements that shall not be allowed are those that are deceptive or misleading or those that make unsupported claims, those that are detrimental to the public interest, or are otherwise incompatible with the National values.

	Negative advertisements
1.	Nudity
2.	Racial advertisements or advertisements propagating caste, community or ethnic differences
3.	Advertisements propagating exploitation of women or child
4.	Advertisement having sexual overtone
5.	Advertisement depicting cruelty to animals
6.	Advertisement depicting any nation or institution in poor light
7.	Advertisement casting aspersion of any brand or person
8.	Advertisement glorifying violence
9.	Destructive devices and explosives depicting items
10.	Advertisement of Weapons and related items (such as firearms, firearm parts and magazines, ammunition etc.)

7.3 Change of Use Policy

Processing of change of use applications enables the county and other relevant agencies to remain abreast with the changing land use and needs. By so doing, the agencies are able to initiate reviews of the existing zoning regulations where necessary.

7.3.1 The Problem

Currently there are no zoning regulations in force. Land in Nakuru is agricultural but developments have continued to take place without an elaborate change of use framework. The investors develop without applications of approvals from the county administrator and the other relevant authorities. This has led to unchecked developments hence unplanned environments with little regard to spatial and environmental considerations.

7.3.2 Policy Objectives

The policy seeks to provide a framework for regulation of change in land use. The specific objectives include:

- To identify the various types of permitted land use;

- To prevent uncontrolled change of use;
- To obtain consensus in change of land use;
- To maintain harmony in the constantly changing urban character;
- To ensure that the new users remain compatible with the zoning regulations; and
- To set requirements for development applications.

7.3.3 Planning Requirements

The following requirements are essential in order to acquire approval for a change of user:

a) A Planning brief;
b) Land ownership documents i.e. land allotment letter, tenancy at will agreement, land certificates, title deed;
c) Duly filled and signed PPA 1 forms;
d) Rates payment receipts;
e) Newspaper advert; and a
f) Public Notice/ Site Notice.

7.3.4 Types of Land Uses

The transformation of the use of land or premises from one to another land use constitutes change of use. Change of use involves the change in the density of use of land or a deviation from the stated use permitted in a lease. The various permitted uses in Nakuru area are as discussed below:

(a) Residential Purposes

i. Single Dwelling

Single dwelling use entails construction of one dwelling house on a single plot/parcel including a guest wing. A single dwelling may be a maisonette, bungalow or town house.

ii. Multiple Dwelling Units

This is the use of land/property for several dwelling units. The use should be specified to any one of the following:

- **Flats** - residential premises with multiple dwelling units with or exceeding 2 floors.
- **Maisonettes**- single dwelling units with two levels; attached, detached or semi-detached. It has internal stairs and a single on street entrance.
- **Bungalows** - attached, detached or semi attached dwelling units with ground level only.
- **Town houses** - this applies to single dwelling units with up to three levels.

(b) Commercial Purposes

Commercial purposes allow a variety of business activities. It therefore permits the unrestricted use of land/premises for one or many types of business activities. This is appropriate for designated commercial areas.

(c) Offices

This category allows the use of land/ premise for offices. It is ideal for tertiary services as opposed to trading of commodities prevalent in commercial areas.

(d) Professional offices

Under this category, the policy applies to use of land/premises for rendering consultancy services. Professional offices attract low volumes of clientele and traffic and therefore can

quite easily operate within residential neighbourhoods without raising land use conflicts. Professional certificates should accompany applications as evidence of the specialization.

(e) Commercial-cum-Residential

The category is also referred to as Business-cum-Residential (BCR). It allows mixture of compatible commercial and residential activities. The two activities may each take between 20 to 80% of the utilization.

(f) Shops and Residential

Under this application, a minimal mixture of business and shops is allowed. The principal use, mainly residential, may take of up to 80%. The shops provide basic household items. The shops should be located at the plots fronting the main roads only. Bars, clubs, hardware shops, distributor outlets are not permitted given the strong residential character and the narrow roads.

(g) Industrial Use

Industrial use permits the use of land or premises for all types of industrial activities. The change of use to industrial use should be allowed in designated industrial areas only.

(h) Light industry

This category permits use of land or premises for light industrial activities. The major activities permitted are inoffensive and may therefore interrelate quite well with adjacent to residential and other populated locations.

(i) Educational

Under this category, the use of land or premises is limited to one or more of various educational purposes. These include a nursery, day care centres, tuition centres, primary schools, secondary school or tertiary institutions. The type of institutions to be developed should be clearly stated.

(j) Mixed Developments Use

Mixed developments permit a combination of various compatible uses resulting from comprehensive developments. They may include various types of uses such as residential, educational, shopping centre etc. Each subplot or unit within the scheme has no mixed use but a distinct use.

(k) Institutional Use

Institutional use permits development of institutions. It allows comprehensive nature of developments that may include offering combination of services such as religious, educational, health, recreational, staff housing, guest houses etc.

7.3.5 Application Requirements

Applications for change of use to be submitted to the County Government Planning department and to include:

a) A planning brief;
b) Land ownership documents i.e. land allotment letter, tenancy at will agreement, land certificates, title deed;
c) Duly filled and signed PPA 1 forms by a registered planner;
d) Rates payment receipts;
e) Survey plans;

f) Comprehensive location plan;
g) English newspaper public notice;
h) Swahili newspaper public notice;
i) Site notice; and
j) Professional certificates in case of professional offices.

7.4 Extension of Use Policy

Extension of use implies a combination of two or more land uses on a single unit of land.

7.4.1 Problem

There is increasing utilization of land for two or more uses without approval from the planning Department. This has led to a combination of incompatible uses resulting to land use conflicts that may lead to loss of economic value, social benefits and aesthetic significance. There is thus the need for the County to evaluate the existing land use to enhance land use compatibility and to provide harmony in the constantly changing urban character while ensuring that the proposed use is compatible with the zoning regulations for the area where the plot is located.

7.4.2 Policy Objectives

The major objectives of this policy include:

- To provide a framework for approval of combination of developments;
- To ensure that only compatible uses are combined;
- To safeguard neighbourhood character;
- To adhere to zoning regulations; and
- To maintain harmony in changing urban character.

7.4.3 Planning Requirements

- Principal use should take up to 80% of the utilization
- Ancillary use should take up to 20% of utilization
- Ancillary use may be short term
- Building alterations to accommodate the ancillary use, if any, may not to exceed 10%
- A maximum of two uses are allowed

7.5 Urban Agriculture Policy

The planning area is a rich agricultural zone, with the greater Nakuru County being a major food basket for the country and the immediate hinterland. However, due to urbanization of Nakuru town, rich agricultural land is being converted for other uses, such as commercial and residential. Rapid subdivision of land to smaller plots makes the land less productive for agriculture. Applications for change of use from agricultural are also on the rise in the area. If this trend is not constrained, urbanization is likely to harm urban agriculture in the region.

7.5.1 Objectives

The main objective is to provide a regulatory framework to guide sustainable agriculture in Nakuru town. Its aim is to ensure food security and viable sizes of farm land.

7.5.2 Purposes

1. To provide appropriately located and sized land for urban agriculture use

2. To provide local opportunities for agriculture-based entrepreneurship and employment;
3. To propose strategies, practices and appropriate technologies that promote sustainable agriculture in Nakuru County.
4. To identify, enhance and strengthen linkages among the various actors dealing with agriculture development in the region.
5. To protect nearby residential areas and the lake from any adverse impacts of agricultural use.
6. To ensure that land best suited for non-agricultural use remains available for such use
7. To ensure safe and sanitary conditions for urban agriculture uses
8. To facilitate local food production and improve community health

In the areas where land is under residential use, roof gardens, green wall and back yards, among others should be encouraged agricultural practice.

7.5.3 Strategies

1. Appropriate location and land sizes for urban agriculture use
   - This can be achieved through land use zoning. For instance high potential areas such as Engashura, Mango, Ngata, Kabatini, Wanyororo and Barut are zoned as agricultural area by the proposed structure plan. This should be implemented and monitored.
   - All change of Use from agriculture to other uses and Subdivision of agricultural land should be applied for at planning department and among others, the proposal circulated to the local area agricultural officer for evaluation
   - Over subdivision of agricultural land should be regulated by setting up minimum plot sizes.
2. Protection of nearby residential areas rivers and the lake from any adverse impacts of agricultural use
   - The county government will require environmental impact assessments/audit and environmental management plans where appropriate. Annual Environmental Audits need to be carried out in large scale farms
   - Waste water should be treated before release into rivers.
   - Proper disposal for unused agro-chemicals and toxic substances
3. Create economic opportunity for growers, processors, and distributers of food; plan for efficient road networks, markets and distribution outlets for farm produce.

An efficient and properly organized marketing system is necessary for ensuring viable and sustainable agriculture. This can be ensured through:

a) Providing well planned market centres
b) Provide refrigerating equipment, cold rooms and storage facilities in Market centres

c) Strengthening existing and promoting formation of new commodity based producer organizations. E.g. Dairy farmers associations, Flowers planters union etc. as such enhance collective bargaining.

d) Establish and strengthen market information exchange systems.

e) Promote product differentiation to meet market needs.

f) Enforce regulations to harmonize informal marketing and slaughter of small stock

4. Promote innovative design for food growing; this include use of intensive technologies such as green houses, drip irrigation and hydroponic farming. Also mixed farming practices should be encouraged in the area e.g. Waste water from a fish pond can be used for irrigation.
5. Promote product safety by strengthening disease surveillance, control and regulation of livestock movement within and without the region. These can be achieved through:
    i. Promoting and building capacity on good agricultural and livestock production practices and enhance quality control in feed formulation and safe use of agrochemicals.
    ii. Developing mechanisms for coordinated enforcement of product safety, traceability and standards.
    iii. Establish mechanisms to ensure regular and effective inspection and control of the use of agrochemicals and veterinary drugs.

7.6 Education Policy

These policy proposals will form the basis for development control within the education sector in terms of location and space requirements. The types of education facilities covered;

- Day care centres
- Nursery schools
- Primary schools
- Secondary schools
- Commercial colleges
- Tuition centres
- Orphanages

7.6.1 Challenges in education

1. Not all schools have adequate land to provide facilities such as playgrounds for co-curricular activities and other social activities of the school.
2. Some schools are located in areas where there are obvious land use conflicts with neighbouring developments. This situation is more common with private schools, especially those located within residential neighbourhoods.
3. Some schools are not registered by the ministry hence quality control on the education offered is not guaranteed.
4. Some parents do not take their children to school due to lack of schools fees.

Table 10: Requirements for Educational Institutions

Type of institution	Land requirement	Plot coverage (%)	Population catchment	Location requirements	Other requirements
Day care centres	0.045ha	35	1500	Within residential areas	Not fronting a major road Not within a commercial area Not within industrial areas
Nursery schools	Single stream-0.1 ha Double stream-0.15 ha Triple stream-0.25 ha	10	2500	Within residential areas	Not fronting a major road Not within a commercial area
Primary schools	Combined with nursery minimum of 3.25 ha Single stream-1.2 ha Double stream-2.0 ha Triple stream-3.0 ha	10	3500	Within residential areas	Have an access road of a minimum of 12m
Secondary schools	Single stream-3.5 ha Double stream-4.0 ha Triple stream-4.8 ha	15	8000	-	Access road should be a minimum of 15m
Commercial colleges	0.045ha	75	-	Within commercial areas	Not located in residential areas
Tuition centres	0.045ha	65	-	Acceptable within residential areas	Access road to be a minimum of 15m
Orphanages	Minimum of 0.2 ha	35	-	-	-

7.7 Regularization Policy

This policy aims to guide the preparation, submission and approval of existing developments. It caters for Change of Use, Extension of Use, Subdivision and Building developments. It provides special mitigation conditions for existing developments, payment of regularization fees and a waiver on statutory penalties. It also provides a list of developments which cannot be regularized

The policy seeks to;

1. To bring unauthorized developments under the umbrella of planning framework and to provide basic facilities and infrastructure to the residents of the concerned areas of the town
2. To provide for regularization of unauthorized eligible developments commenced or completed before the effect of this plan

3. To exclude unauthorized developments made on public land from benefit of regularization.

It provides for two types of regularization:

a. **Regularization initiated by land owner**: Any owner may on his or her own motion seek to regularize
b. **Compulsory regularization**: This may be a requirement by the county government from time from to time. In this regard, the following should be noted:
   - To enhance safe and compatible developments, the County government should require, through public notice, the regularization of unauthorized developments in its jurisdiction
   - The county government may waive regularization penalties at specified times to encourage developers to regularize their development
   - The county government assembly should develop a development regularization to guide the processes

7.7.1 Application Process

The process is similar to that for a new development but:

- For buildings, applications have to be accompanied by Architect's report and Structural Engineer's report on workmanship and Planner`s report.
- Applications for CoU, EoU & Subdivision regularizations should be accompanied by Physical planners report.
- Payment of regularized fee should be made. This should be at least 200% of new development application (Unless the application is done within County government waiver`s period)

Additional steps in the approval process should include:

- Inquiry /Assessment if the development can be regularized
- Imposing of approval conditions
- Checking of the conditions of developments under consideration
- Issuance of Regularisation Certificate

The following developments shall not be regularized:

1. Unauthorized developments on lake riparian, wetland, river riparian and forest land
2. Unauthorized developments that are structurally unsound or pose danger to the occupants or occupants of neighbouring premises or to the general public.
3. Unauthorized developments on any land reserved for parks, play grounds, open spaces or public amenities
4. Unauthorized developments on existing or proposed roads, including those proposed for widening, railway lines, communications and other civic/public amenities
5. Unauthorized development on public land or county government land
6. Unauthorized development on land belonging to county government and not allotted
7. Unauthorized development on land belonging or controlled by the government
8. Unauthorized development done by any person on land belonging to another person over which the former has no title or where the title is disputed as evidenced by court`s proceedings.
9. Unauthorized development done in violation of any law other than planning law

10. Other unauthorized developments as determined by executive committee on Land, Housing & Physical planning.

7.8 Conclusion

It is highly recommended that the proposed policies be adhered to strictly, by all concerned parties, particularly the potential developers and the authorities responsible for land use regulation and the issuance of related approvals. It is only through this that the much needed order and environmental sustainability will be restored in all parts of the town.

CHAPTER EIGHT

DEVELOPMENT CONTROL

In order to carry out any form of development, development permission will need to be sought by the proponent(s). Through development application, relevant information will be provided to the assessment team about the proposed development to enable sufficient scrutiny of the application for consideration. Depending on the type of development proposed, the application may require information about what the development will look like when complete, the construction materials to be used, and any impacts on the surrounding environment.

The types of development that require development approval are listed below.

1. Building plan approvals
2. Alterations and additions to existing buildings;
3. Demolition of dwellings,
4. Change-of-use
5. Extension of use
6. Extension of lease
7. Subdivision & Amalgamation of land
8. Land readjustments
9. Outdoor Advertising and signage;
10. Regularization of existing developments

8.1 Key Considerations of Development Application

Careful analysis, conceptualization and incorporation of the various design concerns often result in more acceptable development proposals, better placed for approval by the vetting authority. This ISUDP proposes the factors to consider when making development proposals as;

8.1.1 County's Development Requirements

Local Physical Development Plans (LPDPs), zoning plans, County by-laws and related county planning and policy documents usually contain requirements in form of development guidelines and/or objectives. These are geared towards mitigating adverse impacts of developments while ensuring that the spatial growth of the town follows an optimal, predetermined pattern.

8.1.2 The Site and Neighbouring Properties

It is recommended that site characteristics (constraints and opportunities) and the potential impacts of proposed development on the neighbourhood be assessed prior to seeking development approval. This will help the proponent make development proposals that are perceived to be in harmony with the neighbourhood within which it is sited.

8.1.3 Development Application Consultants

Potential developers must seek consultancy services from the registered design professionals who are legally mandated to make such applications to the vetting authority. These professionals are; an architect (for building plans), physical planner (for change of

use, subdivisions, extension of lease, outdoor advertisement etc.), environmental expert (for environmental impact assessment, audit etc.) as the case may be. In all these submissions no consent shall be given where professionals are not involved.

8.1.4 Plans and Drawings

The type of plans required will vary depending on the type of development. If a proposal is not covered by any of the development types at the left of the Plans Matrix, inquiry should be made to the Planning Department.

Table 11: Summary of Development Application Requirements

ITEM (Submission by A - Architect P – Planner)	Change of Use (P)	Subdivision (P)	Extension of use (P)	Amalgamation (P)	Boundary/Roads adjustments (P)	Amendments of approved developments (P)	Development Regularization (P)	Outdoor Advertising (P)	Extension of lease (P)	Land use plan (P)	Duplicate copies	Building plans (A)
Ownership documents	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Planning report	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
English Newspaper	✓		✓	✓			✓			✓		
Swahili Newspaper	✓		✓	✓			✓			✓		
Site Notice	✓		✓	✓	✓		✓			✓		
Location & Site plan	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Contours data		✓			✓	✓				✓		
Colour coding		✓		✓	✓	✓				✓		
Linen copy		✓		✓								
Pictorial illustration	✓		✓				✓	✓				
Traffic management plan										✓		
Schemes/Plans		✓			✓	✓	✓			✓		✓
Elevations								•				•

8.2 Application Processes

This section presents the current and proposed application process. The proposals are guided by Physical Planning Act, The Planning Handbook and other authoritative materials. The application processes for different developments are discussed below while full processes are annexed in the report.

8.2.1 Subdivision Process

Currently, Nakuru town has a sub-division process that is deficient of some components. The proposals attempt to address the inadequacies.

Current Steps

1. Preparation of Development Application
2. Submission of Application
3. Circulation
4. Obtain recommendations.
5. Payment of fees
6. Technical committee
7. Approval letter(PPA2)
8. Consent from the local boards
9. Survey

Colour Coding on subdivision scheme

1. Red= new/proposed boundary
2. Yellow=boundary being demolished
3. Blue= shading of proposed road

Proposed Steps

1. Preparation of Application
2. Submission of Application (1 day)
3. Vetting of application (3days)
4. Circulation & recommendations (7days)
5. Payment of fees (1 day)
6. Agenda itemization (2 days)
7. Technical committee (1 day)
8. Ratification (3 days)
9. Approval letter (PPA2)(5 days)
10. Consent from the local boards
11. Partial release (3days)
12. NLC approval (5 weeks)
13. Condition checking
14. Final approval
15. Subdivision certificate(1 week)

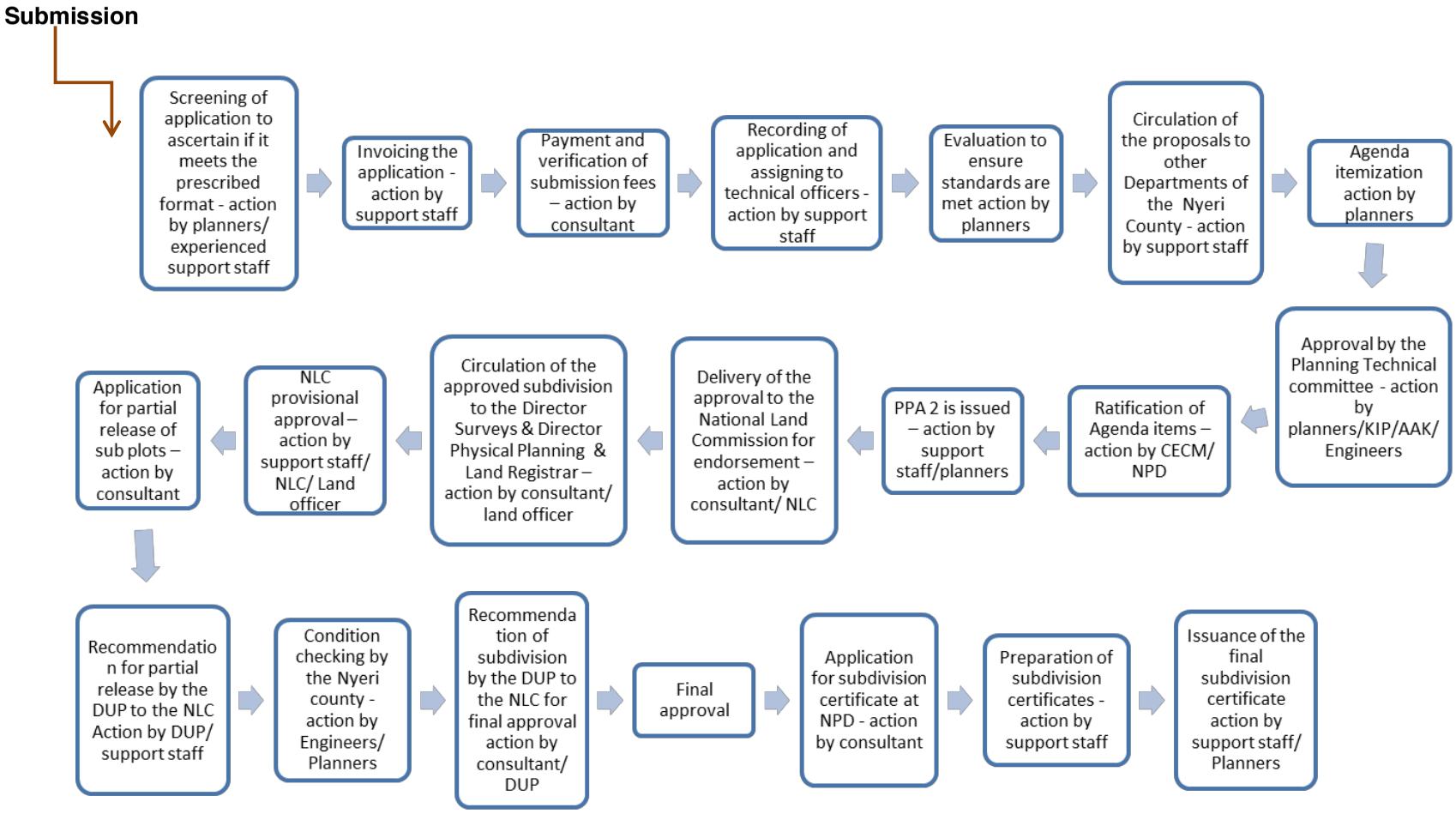


Figure 57: Application, Vetting and Approval for Land Sub division

8.2.2 Change of Use/ Extension of Use/ Amalgamation Process

1. Preparation of Development Application
2. Submission of Application
3. Circulation
4. Obtain recommendations.
5. Payment of fees
6. Technical committee
7. Approval letter (PPA2)
8. PPA5 for compliance
9. Actual development/amalgamation is done on the ground

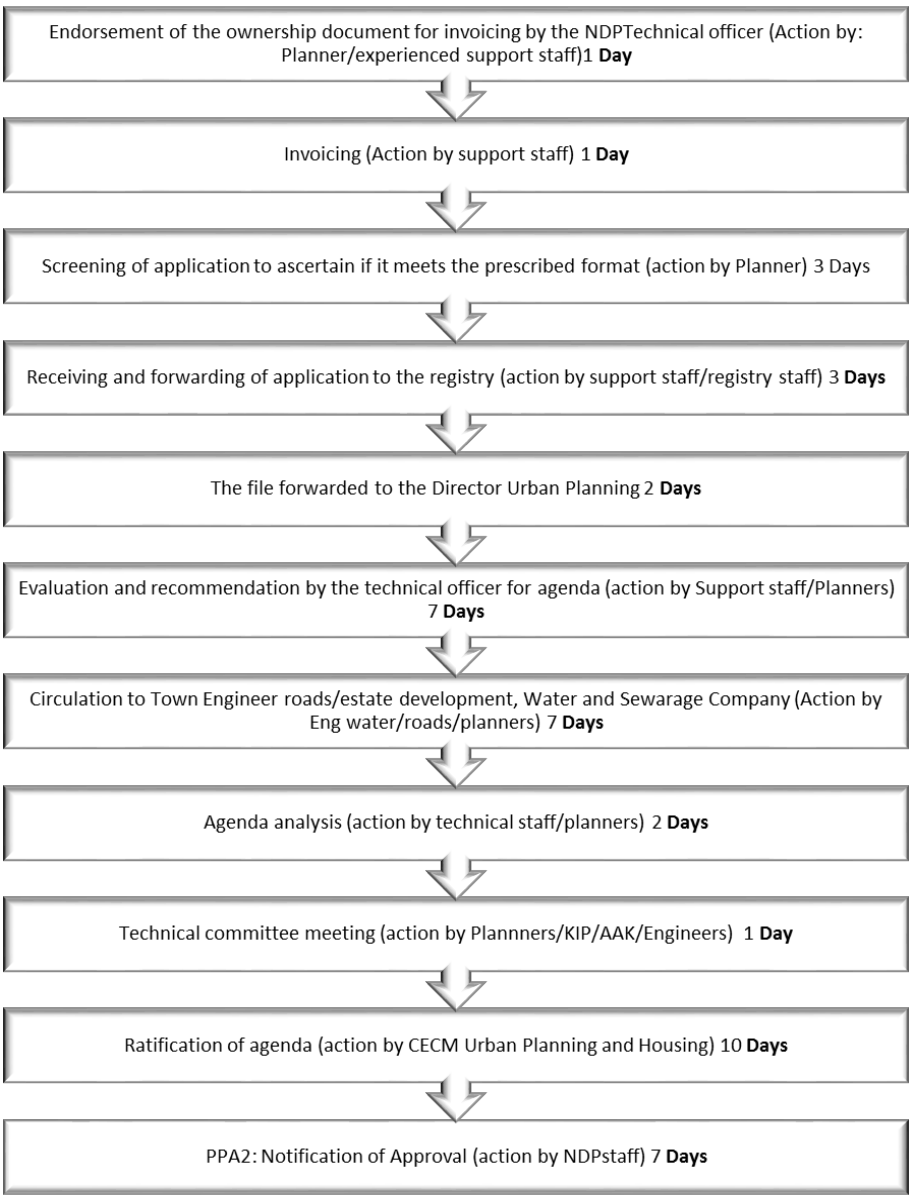


Figure 58: Change of use/ Extension of Use and Approval

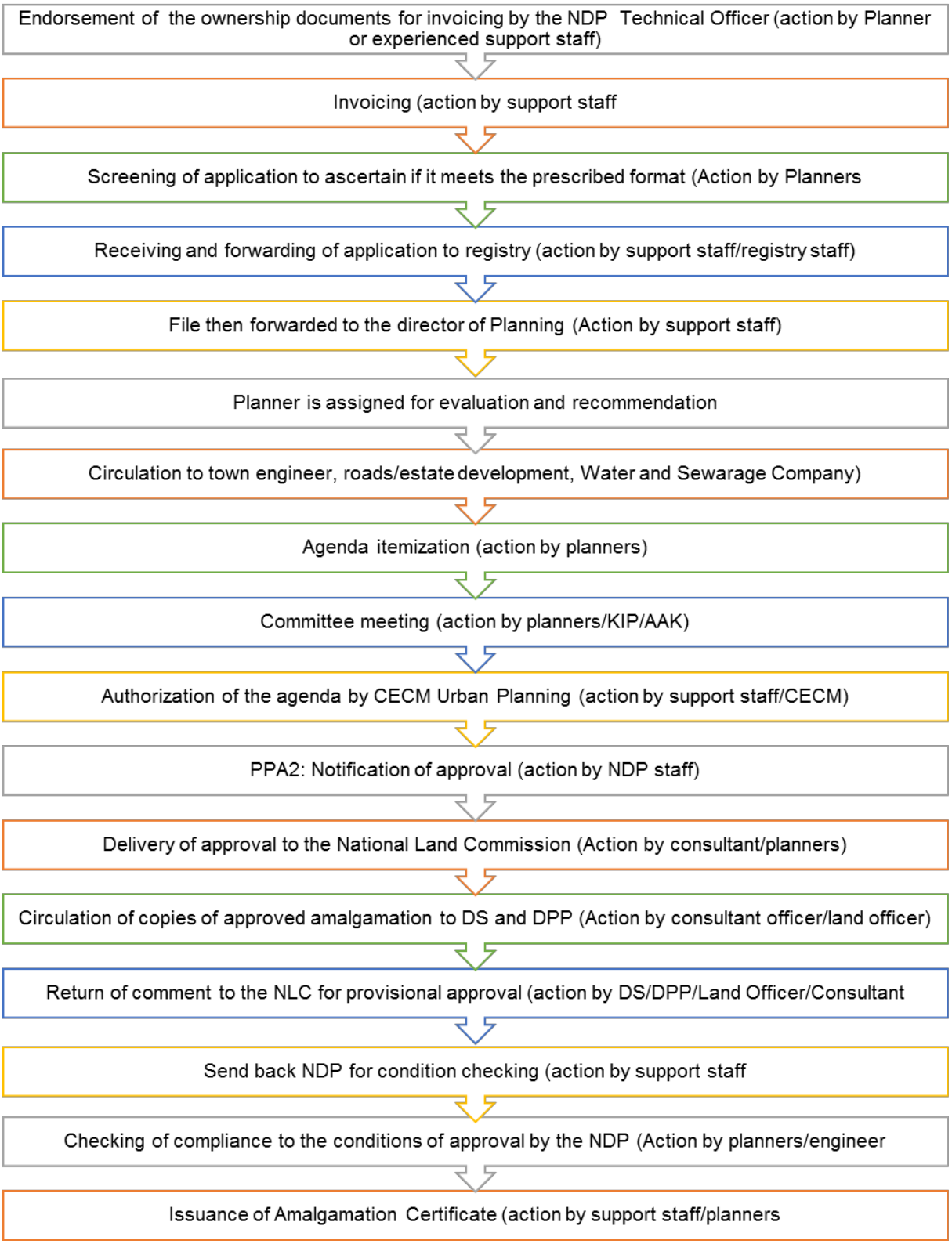


Figure 59: Land Amalgamation Vetting and Approval Process

8.2.3 Extension of Lease Application Vetting and Approval

1. Preparation of Development Application
2. Submission of Application (1day)
3. Vetting of application (3days)
4. Circulation & recommendations (7 days)
5. Payment of fees (1 day)
6. Agenda itemization (2 days
Technical committee (1 day)
8. Ratification (5 days)
9. Recommendation for approval (7 days)
10. Notification to NLC (5 days)
11. Circulation to director of planning (3 days)
12. Evaluation by MoLHUD (5 days)
13 Final Approval

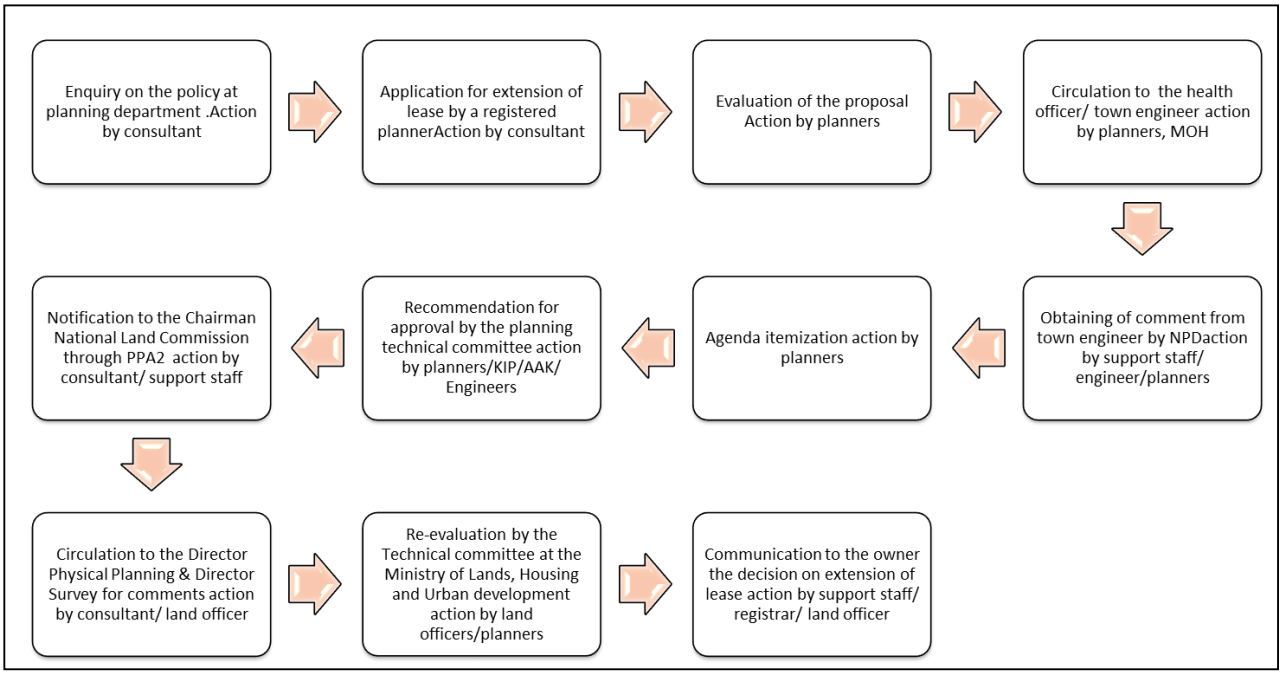


Figure 60: Extension of Lease Application and Approval Process

8.2.4 Building Plan Vetting and Approval Process

1. Preparation of Development Application
2. Submission of Application (1day)
3. Vetting of application (3days)
4. Circulation and recommendations. (7days)
5. Payment of fees (1day)
6. Agenda itemization (2 days)
7. Technical committee (1day)
8. Ratification (5 days)
9. Approval letter (5 days)

8.2.5 Occupation Certificate

This certificate is issued to completed developments that have complied with all approval conditions and have undergone the regular inspections at the required stages. The application has to be accompanied by:

- Copy of approved building plans;
- Copy of approved structural plans;
- Structural Engineer's indemnity form;
- Architect's report;
- Plumbers certificate
- Kenya Bureau of Statistics form duly filled.

8.2.6 Regularisation of Existing Developments

These plans document the existing development. The format of submission is similar to that of new development application building plans, and change of use but have to be accompanied by:

1. In case of buildings:

- Architect's report
- Structural Engineer's report on workmanship Planner`s report

2. In case of CoU, EoU, Subdivision & Amalgamation:

- Physical planner`s report

3. Regularization penalty fees

4. Environmental Audit (where deemed necessary)

8.2.7 Outdoor Advertisements Process

Current steps

1. Registration of the advert
2. Size calculation.
3. Inspection of structural design by planner's and engineer (Billboard)
4. Issuance of invoice
5. Payment (original receipt which is used as the permit.)

Proposed steps

1. Preparation of Development Application
2. Submission of Application

(Planning brief, photographic simulation of the proposal, site plan, Consent or legal agreement between the structure owner and registered land owner among other requirements)

3. Vetting of application
4. Circulation and recommendations.
5. Payment of fees
7. Recommendation for approval
8. Approval

8.3 Developments Approval Conditions

These are proposed conditions that should be given to development proponents during approval processes. Mainly their objective is to mitigate impacts of the development on land uses, traffic and infrastructure and utilities. To formualte new conditions, the existing were first examined.

Existing Approval Conditions

The current conditions applied to date are as follows;

1. Submit Building Plans for approval
2. Conduct Environmental Impact Assessment
3. Not to encroach riparian areas
4. Not to encroach road reserve
5. Ensure inspection is carried out at all stages
6. Provide enclosed chamber for solid waste
7. Facilities to cater for foul water generated from the premises to be provided.
8. Facilities to cater for parking, garbage collection and sanitation to be provided.
9. The resultant parcels remain agricultural.
10. All future developments to be submitted to the County Government of Nakuru for approval
11. Approval granted Subject to section 31, 41 and 51 of the Physical Planning Act cap 286 of 1996

Proposed Typical Approval Conditions

Development applications should be subjected to various conditions that may apply with regard to roads, water supply, sewer, subdivisons, land use mater plans, change of use, extensions of use, amalagamations and regularizations of development. The standard conditions will be specified where they apply and are as follows;

Road Conditions

1. The proposed cul-de-sac/road serving the development to be constructed to adoptive, non adoptive/murram or gravel standards including surface drainage
2. Opening up of roads of access
3. Provicion of street lighting.
4. Plans and specifications of roads to be submitted for approval by the Director of Roads
5. A comprehensive surface water drainage scheme to be submitted and implemented to the satisfaction of director of roads
6. Vehicular access to subplots to be constructed to the satisfaction of the Director of roads
7. Specify Subplotsto be provided with a combined access from a road.
8. Form of applications for permission to construct plot access in a public road to be obtained from the director of roads
9. Vehicular plot entrance major roads will not be permitted
10. Size of road truncations to be provided at the junction to be stated
11. Sizes of road widening strips of land along roads to be specifid and to be surrendered to the government free of cost
12. Minimum 3m wide drainage way/leaves to be provided on plans wherer necessary.
13. Roads to be surrendered to the government free of cost
14. Road realignment and surrender to be effected on the ground as per the approved subdivision scheme and in alignment with adjacent plots

15. Construction of any building or boundary wall/hedge should not encroach on to road reserve
16. Survey plan showing surrender approved by the director of survey to be attached before final approval
17. Provide specified riparian wayleave alongrivers.

Water Conditions

1. Application for water supply to each subplot to be made to the Director [Nakuru Water & Sewerage Company] and his conditions for such supply to be met.
2. The easement for the existing water main is/are to be transferred to the subplots.
3. A comprehensive water reticulation to be provided. Plans and specifications to be approved by Nakuru County Government
4. Provision of water supply to each subplot

Sewer Conditions

1. 225 diameter sewer/s to Nakuru County standards to be extended to serve all subplots.

Plans to be submitted to the county for approval

2. Civil engineering drawings and specifications to be submitted to the water and sewerage company for approval.

3. Appropriate sewer way leave to be provided along the existing/proposed sewer where applicable.

4. Existing sewer with its diameter direction of flow and way leave to be shown

Change/Extension of Use/Extensions of lease Conditions

1. Submission of satisfactory building plans within one year and completion of construction within two years otherwise the approval lapses.
2. Payment of revised ground rent as will be determined by the Government Chief Valuer of the Ministry of Lands.
3. Provision of road widening strips along roads
4. Payment of revised land rates as will be determined by the Chief Valuer
5. Subject to the plot not constituting part of the disputed public/private utility land/Allocation.
6. Subject to compliance with Section 36, 41 and 52 of the Physical Planning Act & Urban Areas & Cities Act & other relevant statues.
7. Subject to compliance with the approved zoning policy for the area.
8. Subject to provision of appropriate setback (s) as per rezoning/structure plans.
9. Subject to provision of adequate and functional on-site parking to the satisfaction of the Director of Roads.
10. Subject to ancillary use being limited to 20% of the land.
11. Subject to commercial development being limited to ground floor only.
12. Subject to each dwelling unit being limited to the permitted minimum plot size.
13. Subject to the development being limited to specified levels.

14. Subject to the developments maintaining the requisited 3m, 6m or 9m building lines as per the statues.
15. Subject to submission and implementation of traffic management plan to the satisfaction by the Director of Roads - Nakuru County.
16. Subject to obtaining of approval from NEMA
17. Subject to the development maintaining the permitted neighrohhol character and densities of the area.

Land Use Master Plans

1. Submission of civil engineering drawings to the chief officer, roads, transport and public works for roads and surface drainage works within 6 months
2. Obserivng permitted ground cocerage and plot ratio
3. Reservation of adequate land for public amenities(Excluding road reserves)
4. Compliance to WARMA guidelines on appropriate river riparian reserve
5. Submission of a traffic study report
6. Undertaking an EIA and obtain NEMA license before commencement of any work
7. Surrender the freehold titles in exchange of the 99 year leasehold title
8. Subject to compliance with County Spatial plan zoning guidelines
9. Subject to provision of appropriate setback(s) as per zoning plan
10. Subject to provisions of adequate and functional onsite parking to the satisfaction of the county government of Nakuru
11. Submission of detailed plans/layout of each zone to the county before approval of building plans
12. Development of physical infrastructure to the county adoptive standards during developments
13. The public amenities should be reserved and developed as per the structure plan
14. Ensure no encroachment onto road reserve or wayleave

Subdivisions/land readjustments

1. Payment of revised ground rent as will be determined by the Government Chief Valuer of the Ministry of Lands.
2. Payment of revised rates as will be determined by the Chief Valuer – Nakuru County.
3. Provision of road widening strips along existing roads
4. Surrender of areas affected by roads to the governement free of cost
5. Subject to the plot not constituting part of the disputed public/private utility land/Allocation
6. Subject to compliance with Section 36, 41 and 52 of the Physical Planning Act & Urban Areas & Cities Act & other relevant statues.
7. Subject to compliance with the approved zoning policy for the area.
8. Subject to provision of cul-de-sac as indicated on the attached schematic layout of the proposed development.
9. Direct access to major roads not be permitted.
10. Obtaining subdivision certifcate on completion of survey

Regularization Standards

1. Subject to structural stability of existing building being verified /confirmed to the satisfaction by the Director of Public works.
2. Subject to the plot not constituting part of the disputed public/private utility land/Allocation.
3. Subject to Environmental Audit
4. Surrender of strips of land affected by road widening along existing roads

8.4 Development Fees

Development fees are imposed by the government on new or proposed developments to pay for all or a portion of the costs of providing public services to the new development.

8.4.1 Existing Development fees

The current county fee structure is deficient of significant elements that the plan seeks to correct. The existing structure is illustrated below.

Table 12: Existing Development Application Fee Structure

Particulars	Unit of Measure	Current Fees
Land Subdivision		
Application fees		5000
Processing fees (Non-Agricultural)	Per Plot	2000
Processing fees (Agricultural)	Per Plot	3000
Land amalgamation		
Application fees		5000
Processing fees(all Users)	Per Alteration	10000
Application for Dispute resolution		3000
Change of use/Extension of use/lease		
Change of use	Per plot	20,000
Special change of use(petrol station/Industrial)	Per Plot	50,000
Extension of use	**Per plot**	**15,000**
Extension of lease beyond 20 acres	Per plot	100000
Extension of lease beyond 20 acres	Per Plot	20000

8.4.2 Proposed Development Fees

Table 13: Introduced Fee Items

ITEM	PARTICULARS
1. Renewal of Development Application	Change of Use
	Extension of Use
2. Regularization of Developments	Change of Use
	Extension of Use
	Subdivision
	Buildings

3. Registration under sectional properties	Per application
4. Amendments to subdivision	Lump sum
5. Subdivision certificate	Subplot
6. Certified copies of original subdivision plans	Per set
7. Certified copies of subdivision certificate	Per set
8. Certified copies of approval letters	Per set
9. Land use plan	Per application
10. Evaluation of NEMA Reports	Per report
11. Site visits fee	Per visit
12. Inspection fee	Per visit
13. Construction Monitoring, enforcement and occupation certificates	
14.	
- Town Plan	Per copy
- Local Physical Development Reports (LPDPS)	Per copy
- Other Planning Policy Reports	Per copy
- Base maps. Part Development Plans (PDP)	Per copy
- Duplicate copies	Per copy

8.5 Planning Department Structure

This plan proposes an enhanced planning department at both the county and sub-county level as shown below.

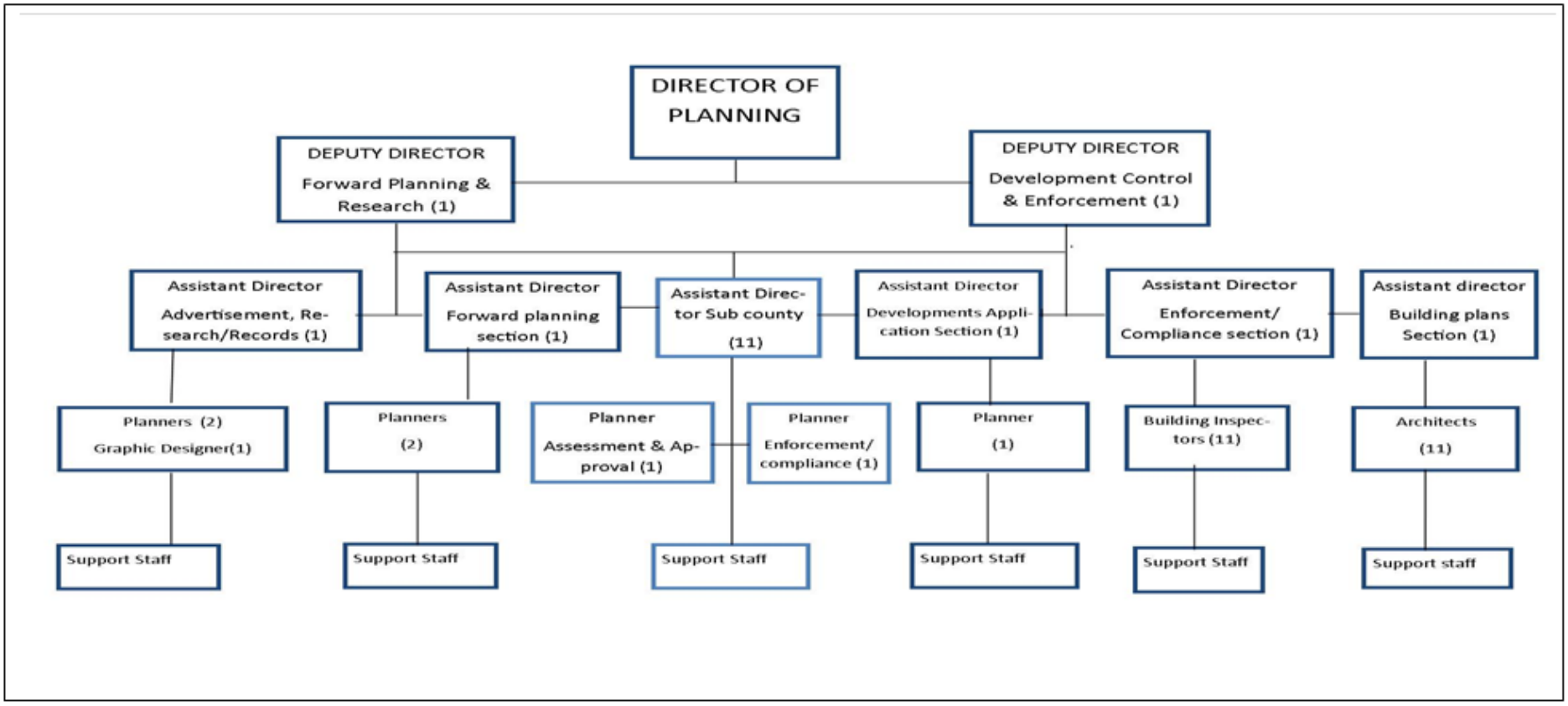


Figure 61: Proposed Nakuru County Planning Department Structure

8.6 Conclusion

Development control provides guidelines on requirements and procedures to be followed in development application in Nakuru town. It ensures orderly and rational development of land to create sustainable human settlement that accommodates a variety of compatible land uses hence reducing land use conflict. The proposals aim to improve development process and mitigate impacts of the development on land uses, traffic, infrastructure and utilities as well as the environment.

CHAPTER NINE

SECTOR PLANS

The sector strategies herein discussed address pertinent sectors whose functioning is key to the development of Nakuru town. Key sectors that will be targeted by the planning process include preparation of the following plans.

9.1 Transportation plan

The transport plan proposes to address issues and challenges within the transport sector that have been interlinked to develop an integrated transport network plan. The strategy has evaluated the broad road network and recommended the possibility of establishing missing links, road widening, road improvements and creating new ones for improved vehicular transport. Mass transit modes, transport interchanges and parking facilities have also been considered. Special attention has been given to A104 transport corridor, which is the major corridor, as well as the anticipated Standard Gauge Railway.

The planning area is served by two main modes; Road and Rail transport. The following are the key issues within the planning area.

9.1.2 Critical Transportation Issues

Key issues on road transport in Nakuru were found to be: congestion on and off the carriageway; lack of facilities for Non-Motorized Transport (NMT) users; inadequate public transport facilities/services; poor state of roads and limited alternative roads; lack of effective traffic control measures like traffic signals, signs and road markings; poor intersection designs and traffic accidents. Another transport related problem is uncontrolled land use development within and on the periphery of the town.

Traffic congestion is the most visible, pervasive and immediate transport problem plaguing the town on a daily basis. Congestion affects all modes of transportation and all socio-economic groups. The stop-and-go traffic flow caused by congestion also wastes fuel energy and increases pollution. Moreover, roadway congestion increases the likelihood of road accidents, although with lower speeds, they are less likely to be fatal. Busy roads in the CBD are congested because of mixed and uncontrolled use by virtually all modes of traffic. On-street angular parking and street trading are major occupants of street space leaving little or no space for walking and cycling.

The overcrowding of pedestrians, cyclists, and street vendors on the shoulders of roads also creates safety problems, since they often spill over onto the roadway. Uncontrolled on-street parking further exacerbates congestion and safety problems by narrowing the available right of way for moving traffic.

Another important source of congestion is the diverse mix of transport modes forced to share the limited roadway space. Slow non-motorized modes such as bicycles, hand-pulled carts, and pedestrians obviously slow down faster motorized modes such as cars, trucks, and buses. Such a wide diversity of roadway users also causes a range of safety problems, since the modes have very different sizes, manoeuvrability, capacities, speeds, and other operating characteristics, thus generating a range of conflicts.

Provision of facilities for NMT users and public transport does not seem to be in the development agenda of the town. The path taken is that of encouraging the freedom and dominance of the transport system by individual motorized transport. The lack of termini outside the central areas for intercity PSVs is another contributor to traffic congestion in the town.

Most roads in the town are in a poor state, often riddled with potholes and with uneven or completely missing pavement. There is a general lack of modern traffic signals and signage; the police are manning the junctions to ensure smooth flow of traffic. A number of alternative roads/reserves are available that can be developed to distribute and divert traffic from the central area. However, these roads have not been prioritized for improvement as a measure of dealing with the transport problems.

Table 14: Transport Challenges

KEY ISSUE	LOCATION
Congestion on roads	Major CBD roads
Traffic accidents	Along highway, Total roundabout
Narrow roads	-Oginga Odinga Avenue - Mburu Gichua road - other roads within Planning area
Inadequate NMT provision	Planning area
Inadequate parking spaces	CBD
Congestion in the transport terminals	Main stage
Underutilization of rail transport	Planning area
No air transport for public use	Planning area

9.1.3 Road Transport

Road transport is the leading mode of transport within the planning area. The town is a major transport link between the Western part of the Country and other major towns like Nairobi and Mombasa. Nakuru town is well linked to the international, national and regional transportation systems. Trans-African Highway (A104). In addition, the town is connected to its region/hinterland through primary road system. The following descriptions show the road network within the Planning area.

Guiding Principles

The following are the guiding principles in the development of sustainable urban transport:

1. A city that has sustainable transport would be one in which goods and services were easily accessible, in terms of time and money budgets, to a substantial number of the city residents.
2. The benefits of transport policies would be maximized and fairly distributed; the negative effects would be minimized and shared out equally. It would be physically structured in such a way as to allow residents to move around freely, with easy access to green areas.
3. The borders of the city would be fixed so that horizontal expansion would be difficult.
4. It would offer a clean environment, with good air quality and a low noise level. It would be a place that people care about and want to keep in good condition.

5. Public transport coverage would be good across the whole city and the service would be affordable.
6. Residents would be able to choose to use a car, but would not be obliged to do so in order to access such benefits as jobs, education and other social services.
7. The city should be easy to enter and to leave. People using motorized transport would pay any costs this generated, which would otherwise have to be paid by the whole society.

The formulated vision and mission of the transport sector is:

Vision: *To achieve safe, efficient and convenient movement of persons and goods in, out and within the town as well as improve regional connectivity and mobility.*

Mission: *A transport system which ensures physical and environmental preservation, with public transport as the main mode of transport supported by other modes, and removes transit traffic from urban centre and residential areas; minimize losses – time and cost of transportation and related accidents.*

9.1.4 Key Strategies

Road Networks

There is need to re-classify all the roads within the town in accordance to their functions. The starting point should be to have clear road classification systems, with appropriate design standards showing road design layouts, for each road class. The roads need to be classified according to their intended “Functions” (access, local collector, collector and urban corridor) and then each is designed to a required “Shape” that will ensure proper “Use”. The layouts would ensure that the functions are maintained and the roads properly used to facilitate movement of people and goods.

The road designs should ensure that motorized traffic is on the designated carriageways, PSVs use bus stops, and road shoulders are available to the pedestrians, while cyclists can either be mixed with MT (roads with access function) or on dedicated cycle tracks where MT traffic volumes and speeds are high (roads with the flow function). Measures such as open drains, trees, bollards, and railings, should be in place to ensure segregation.

The town should embark on a programme for improvement and upgrading of its roads to build more capacity into the road transport system. This programme should have priority projects that would involve the upgrading of all gravel roads within the central area to bitumen standards, NMT facilities like sidewalks, footbridges across river streams, etc. The programme would also involve the dualling of some roads around the CBD, improvement of intersections, and construction of a by-pass for the transit traffic.

Road Upgrade

Roads which require upgrading are spatially illustrated in figure 62 and detailed in table 15

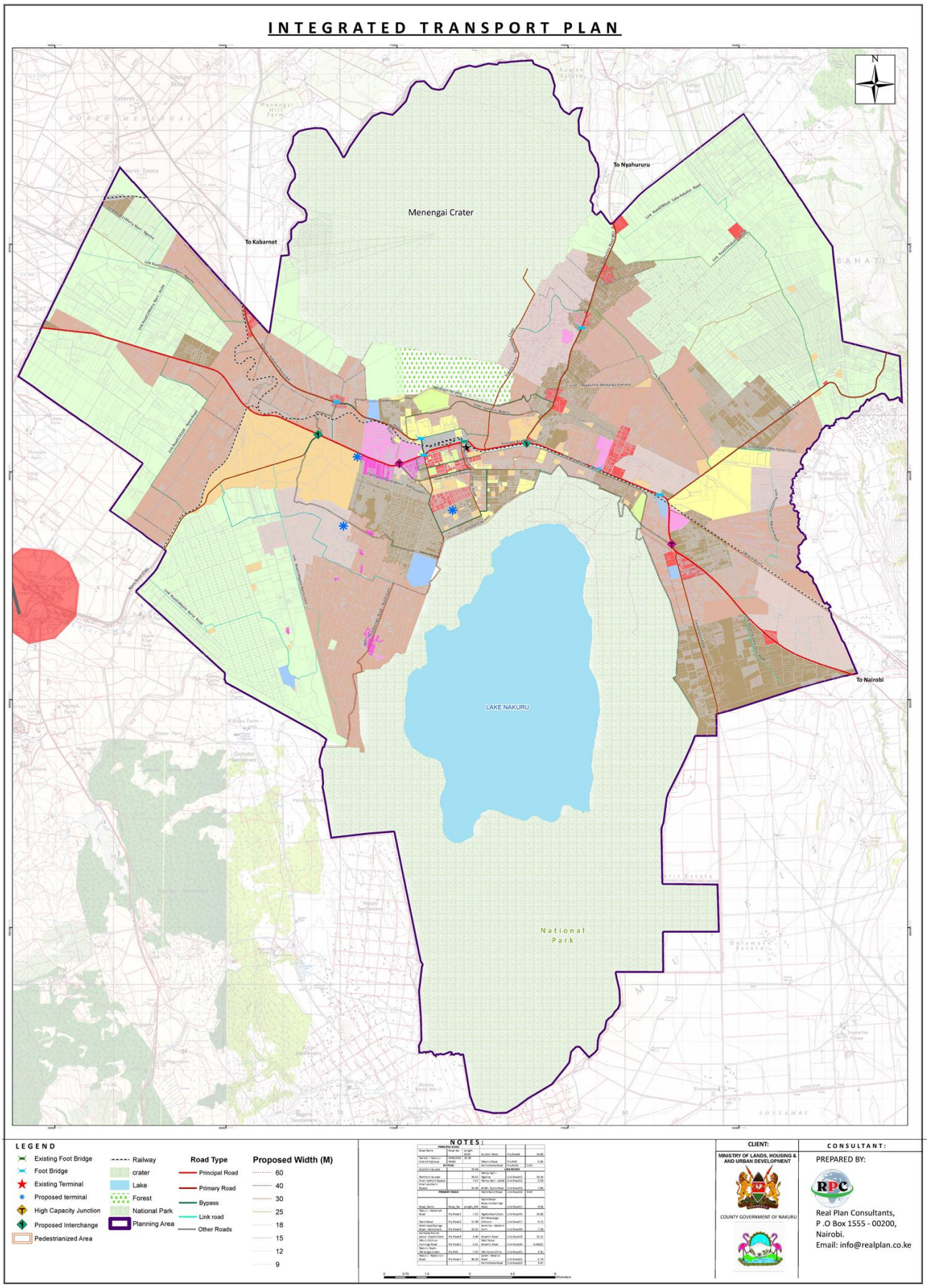


Figure 62: Integrated Transport Plan

Table 15: Proposed Road Upgrade

No.	Road Name	Where the road Links	Length (Km)	Surface condition
1	Kenyatta Avenue	Mburu Gichua-West side mall	1.5	Paved
2	Oginga Odinga Avenue	Nakuru-Lanet	11.7	Paved
3	Mburu Gichua Road	A104 - Lake Nakuru National park	3.1	Paved
4	Moi Road	Kenyatta avenue - Afraha	1.4	Paved
5	Menengai Crescent	Nakuru-Mwanga	3.9	Earth
6	Kariba Road	West road-Afraha	1.4	Paved
7	Kanu street	West road-Afraha	1.5	Paved
8	Lokicha Road	Kaptembwa-Nakuru	2.6	Earth
9	Stanley mathenge Road	Kaptembwa-Nakuru	3.4	Paved
10	-	Kiratina-Kiondo	3.3	Paved
11	Mashindano street	Kariba road -Baharini	1.3	Paved
12	-	Race course-Nakuru	0.8	-
13	Yimbo Road	Shabab estate-Road West	0.7	Paved
14	Migori Road	Kaptembwa-Nakuru	1.2	Paved
15	Menengai drive	Nakuru-Kilimani Police Post	1.0	Paved
16	-	Mawanga-Wambura	2.4	Earth
17	-	Kiti-Hyrax	1.3	Earth
18	Ronald Ngala Street	West road-Afraha	1.9	Earth
19	Mombasa Road	Section 58-Kivumbini	2.4	Earth
20	-	Nakuru Hospital-Prisons	0.5	Earth

These roads require upgrading in the short term period for better traffic flow. The roads will also serve to ease current congestions and also the future proposed land uses. Non-Motorized Transport facilities; foot paths and cycle tracks should be included in the upgrade plan.

Road downgrade

There is need to downgrade some road sections within the CBD; the stretch of B4 from West side mall to Nakuru general hospital should be downgraded. This aims at discouraging movements into CBD to access B4 road, thus easing the congestion within the CBD.

By-passes

The bypasses are meant to remove transit traffic within the CBD and thus ease the congestion.

A northern bypass will branch off A104, join B5 then branch off to follow the edge of Menengai forest and joins A104 again at Njoro turn off. The Southern bypass will branch off A104 at Pipeline (at Barnabas), follow the boundary of Nakuru National park, pass though Kaptembwo and joins back to A104 at Njoro turn off.

These areas need immediate modification for future bypass development. This may entail compulsory acquisition in some cases.

An additional advantage of having northern and southern bypasses bordering a forest and a national park is that it helps deter human encroachment which is already a common

phenomenon. Two inner northern bypasses are proposed. The first inner northern bypass involves the improvement of Maragoli road and Stanley Mathenge road. This will divert traffic off A104 to B4, Maragoli road, Stanley Mathenge road and back to A104 at Total round about. The second inner northern bypass will Branch off the A104 near the Nakuru War Memorial Hospital then join the B5 road and then join the A104 at the KFA round about.

Two inner southern bypasses have also been proposed. The innermost bypass branches off from Lanet, joins Oginga Odinga Street and later joins A104 at the KFA round about. The second inner bypass will branch from the edge of L. Nakuru National Park to join Shadrack Kimalel road then join Ronald Ngala and later join Viwandani road to join the A104 at the Total roundabout.

Justification for the by-passes

Findings from the traffic survey along this section indicate that the current traffic conditions during the peak hours are generally at LOS D. The normal growth and the upcoming commercial nodes will attract/generate significant additional traffic which will make traffic conditions worse. Due to this high volume of traffic, by passes are recommended to ease traffic especially at the stretch passing through the CBD.

Current average hourly flow rates (vehicle/hour) and LOS				
Direction	Nakuru-Naivasha		Naivasha-Nakuru	
Time period	Vehicle/hour	LOS	Vehicle/h	LOS
Morning peak	1570	D	828	C
Lunch time peak	1428	D	1036	D
Evening peak	1351	D	1320	D

Interchanges

The exit and entry points to A104 by the bypasses should be of high traffic capacity. Interchanges are therefore important at A104-B5 junction and at Njoro turn off. These areas need immediate modifications for future bypass connection.

Proposed high capacity connections

The take-off from A104 to the inner bypasses in Northern and Southern parts will require high capacity junctions. These junctions will be located in Lanet, and Total round about. These junctions can be developed in the medium term program to ease congestion in the near future.

To solve current congestions at section of A104 from Mburu Gichua to Westside mall the connection in these mentioned areas needs to be improved to higher capacities.

Planning of maintenance of the transport network will be necessary to preserve invested funds and ensure sustainability of the benefits to the residents. The prioritization should be on the basis of road functions and traffic levels, taking into account the construction materials.

Road Safety

The strategy for reducing accidents focuses on the following:

1. Provision of NMT facilities that separate them from fast moving motorized traffic.
2. Improvement of hazardous road sections and intersections to improve flow and reduce conflicts.
3. Reduction of congestion through better traffic management measures.

4. Area-wide application of speed reducing measures. Studies published over the past few years show conclusively that vehicle speed is very strongly related to both the probability of a crash and the severity of injury – a 1% increase in average speed can result in a 3 – 4% increase in fatalities.
5. Enforcement of traffic rules, especially among matatu operators.

Multi-Modal Transport system

One of the basic challenges in urban transport is to ensure a sustainable balance between public and private modes of travel. This can be achieved by adopting two general categories of measures, that is, public transport incentives and automobile disincentives. Since it will be too sensitive to adopt any automobile disincentive measure given the low level of auto ownership, the focus for ensuring a balanced development of urban transport should concentrate on providing public transport incentives and priorities. In order to reduce congestion, fuel use and improve air quality, many modern cities around the world have adopted high capacity public transport modes and priority measures to ensure their efficiency.

Free competition in combination with high unemployment appears to have led to situations with very large numbers of small, low-cost vehicles (matatus and motor-cycles) dominating the urban transport system. Now in its extreme form, the free competition concept has led to a quite inefficient use of road network.

It is proposed that the County should reform and restructure its public transport system by adopting a controlled competition model with clear division of responsibilities between the public and private sectors. The County should maintain the coordinated network approach to public transport and service structure and a competitively recruited private partner/s should operate the routes. It is proposed that the new roles of the County, through the creation of a new Transportation Unit, should be the overall planning of the transport system, including:

1. Planning the route network in the best interests of the town and passengers;
2. Providing the necessary infrastructure such as bus stops, bus ways, and terminals;
3. Negotiating with and sub-contracting operators for routes or route packages in a competitive bidding process, and;
4. Monitoring and controlling (quality) the performance of such operators.

This model has the strongest merit as it presents a combination of transport authority planning and control of public transport services on the one hand and competition between independent operators for the operation of public transport services, on the other.

The development, management, and maintenance of terminals and stages should be privatized, through competitive bidding, and awarded under clear terms of reference. Security at the terminals and stages should be part of the responsibility of the investor.

The provision of public transport (PT) service must be part of an overall set of policies which also includes urban planning, traffic restraint and measures to improve conditions for pedestrians and cyclists.

The critical issue with public transport is its flexibility – and key to passengers is simplicity and predictability. Paradoxically, to be flexible, PT must also be rigidly predictable.

Parking in central areas

The following strategies should be implemented by the County:

1. Provide adequate parking facilities in the CBD by constructing additional off-street parking within the buildings, using appropriate guidelines (see table 20 below). On-street parking should be parallel parking instead of angular. The County Government should then charge parking fees, not as a revenue source but a deterrent measure.

Table 16: Parking provision guidelines

Usage	One Car space for every usage
Housing	2 houses or lodgings
Specialized market place	50 to 60 sq. m of covered area
Market	30 to 50 sq. of covered area
Office and Administration	50 to 60 sq. m of covered area
Hotel	5 to 8 beds
School	(a) 0.5 classroom/secondary school and above (b) 1.0 classroom/ below secondary school level
Restaurant, Cinema and Theatre	12 seats
Mosque / churches	10 to 12 prayer spaces
Hospital	5 to 10 beds
Sports field	10 to 20 seats or spectators
Industrial establishment and workshops	6 to 10 workers

Source: Adopted from physical planning handbook, 2002

2. Convert the main bus station for regional public transport needs and provide for public conveniences such as passenger waiting sheds, storage facilities, fast-food kiosks and toilets. This mainly would serve transit traffic for other main towns. The parking should be properly designed and paved to improve drainage, preferably with concrete blocks.

3. For internal traffic, there should be satellite bus stations constructed to cater for the need of public transport from different estates. Terminal facilities for regional traffic from different areas should be as follows:
    - On the area around Eveready for the traffic coming from the western side of the town;
    - On the area around the Railway Station for the traffic from the eastern parts of the town;
    - For the southern parts of the town the area around Langa Langa and Kapkures is suitable.

9.1.5 Improvement of NMT facilities

Pedestrianization of the CBD area:

Proposal for introduction of properly designed pedestrian-walkways, complete with rails at some points and bollards at others to keep cyclists and motorists away from the pedestrian walkways to minimize conflict and improve pedestrian safety; the area bounded by the following roads: West road, A104, Mburu Gichua and Ronald Ngala should be improved in short term plans by providing foot paths and cycle tracks in short term plans. This will ease the current congestion from mixed use and will improve safety.

Planting trees on shoulders of some main arteries like A104, B4 and B5 roads should create a boulevard that can also provide shade for pedestrians from the sun, as well as a tool for landscaping to improve environmental aesthetics.

Bicycles and Motorcycles:

There is need to integrate cycle tracks on the shoulders of every road so as to reduce conflict arising from competition of the main carriageway with the motorized traffic; the short term plans being the area within the CBD along the roads which have been mentioned above for upgrade.

Bicycle, Boda-boda, and motor vehicle taxis should have designated base of operation that is well designed complete with sheds they can shelter in during rainy periods, pedestrian resting, as well as places of convenience. These cycle stages should be located not far from the main bus stations and satellite bus station to allow pedestrians easy access to them as they change modes.

Cycling is common along Oginga Odinga Avenue, Mburu Gichua road, West road, Moi road, Gusii road and General Kariba road. It is therefore proposed that all the above roads alongside other major roads be provided with cyclist lanes of 3M. It is proposed that no cyclists will be allowed within the following extents to prevent cyclists into the CBD and therefore reduce congestion.

- East of West road
- West of Mburu Gichua road
- North of Oginga Odinga avenue

Bicycle parking is a major challenge and it is proposed that the parking be located within two localities. These are;

- Near the junction of West road and Oginga Odinga avenue
- Along Oginga Odinga Avenue (near Taidys club)

Carts:

Carts are mainly used for carrying goods to the markets in the town. Traders prefer them because they carry a lot of goods and charge affordable fees as opposed to the cars or pick-up trucks which would be hired more expensively. Because of their slow speeds, they need to be restricted to operating on some roads as they contribute to serious congestion on main streets.

Hand-drawn carts are common around the main market which is located along Market road and the main bus park which is located along Mburu Gichua road. The carts are used to transport goods from these two localities. The major challenges facing the use of hand-drawn carts include the lack of hand-cart lanes and lack of parking. It is proposed that Market road be provided with 2m-lane to facilitate movement of these carts. It is also proposed that a road linking Market road to Oginga Odinga be used by hand drawn carts to ease congestion along Mburu Gichua road.

Decentralization and Governance

In their new functions, local authorities find themselves dealing with a broader spectrum of responsibilities in terms of urban planning, real estate development, construction permits and controls, management of roads and urban infrastructure works. These functions require that the local authorities maintain adequate levels of human and financial resources.

Lessons, drawn from experience with the decentralization, suggest that in order to succeed, this process must be accompanied by:

- A clear definition of the division of responsibilities between the central government and the Counties;
- A transfer of resources commensurate with the responsibilities being transferred from the central government to the Counties;
- Improvements in the technical, financial and management expertise, including leadership and governance; and,
- Improvements in the ability of Counties to mobilize local resources, involve the private sector in service provision, and efficiently collect taxes.

Key Action Plans

Immediate Actions (Quick Wins)

The following actions should be implemented by the County within a period of 1 – 2 years:

- Implement area-wide traffic calming measures: speed humps, re-shaping of intersections, re-location of bus stops, road markings and signage, traffic signals, NMT crossings, especially in the central area.
- Change all parking orientation from angular to parallel in the central area to create more space for moving traffic. Priority streets are Kenyatta Avenue, Mburu Gichua road, Moi road and West road.
- Restrict right-turning movements through the conversion of two-way streets to one-way streets. Priority should be streets joining the A104 road; Kenyatta Avenue and West road.
- Remove all parking lots along Kenyatta Avenue to allow for the road to operate as a dual carriageway for MT, and provide space for Cyclists.
- Improve all walkways within the central area: clear verandas of traders and hawkers; open (remove garbage) and upgrade (pave and drain) alleys; channelize pedestrians to designated crossings.
- Criminalize parking within 50m from the intersections to improve on traffic safety.
- Designate Public Transport termini outside the central area: Locate them at Eveready to the West, Langa and Kapkures to the South and close to Railway termini for the Eastern parts.
- Restrict town service Public Transport operations to designated roads and terminals only: Only intercity buses should go through the Kenyatta Avenue and other parallel roads.
- Pass necessary legislation for urban transport development and management.

Short Term Actions: 2 – 5 years

- Provide traffic signals at A104-Mburu Gichua, A104-Kenyatta Avenue/West road, Mburu Gichua-Kenyatta Avenue, Kenyatta Avenue-Moi road, Oginga Odinga-West road, Oginga Odinga-Moi Road and Oginga Odinga-Mburu Gichua Street intersections.
- Provide NMT bridges (footbridges) across A104 at least every 500 m; Areas of more priority include industrial area at Total round about, West side mall at KFA round about, Lanet at junction to Ndundori, Free Area, Barnabus, Heshima along B5, Olive-inn along B4.

- Upgrade all gravel roads within the central area to bitumen standards with NMT facilities. The list of priority upgrade roads is as given in proceeding chapters of this report.
- Acquire land for future transport developments: park and ride; BRT; terminals; road expansion and bypasses.
- Establish a Transportation Unit with the responsibility for transport planning, development and operation.
- Prioritize road development and maintenance in accordance to their functions in the urban road network.
- Initiate and maintain continuous dialogue with other Government departments and key stakeholders in the implementation of the Strategies.

Medium and Long Term Actions: 5 – 10 years

- Increase coverage of traffic signals within the central area.
- Upgrade the link roads to bitumen standards to connect the neighbourhoods.
- Extend the roads: Maragoli and Stanley Mathenge to serve as Northern inner bypass. Oginga Odinga, Shadrack Kimalel, Ronald Ngala, Eldoret Avenue and Viwandani roads can be improved to be an inner southern bypass.
- Gradually restrict entry of small capacity PT and private cars to central area (2 km radius) and encourage use of large capacity buses through fiscal incentives.
- Restrict urban sprawl: approval of high density development and urban rejuvenation within the central area; off-street parking; controlled development; Use of urban growth boundaries to preserve agricultural and forest land through rigorous use of comprehensive planning shaped outside the town by state wide planning goals.

Link road	Neighbourhoods/nodes connected	Condition	Distance
Mercy Njeri-Ngecha	Mercy Njeri to Ngecha	Earth	7
Njoro road-Baringo road/Naishi/Lare	Ngata-Barut	Paved/earth	
Landhies Road/Ronald Ngala street	Naka-Industrial area/Afraha-Free hold	Earth	2.4
Kabatini road	Maili Sita-Kabatini-Githioro	Earth	12
Heshima-Modern farm	Engashura-Modern farm	Earth	3.6
Kiti-Mawanga-Githioro	Engashura-Wanyororo	Earth	6
Mbaruk road	Pipeline-Mbaruk centre	Earth	8
Heshima-Crater	Kirima/Kiamaina	Earth	4

Road Widening Policy

Based on the traffic generations from various parts of the planning area, a road widening policy has been proposed to facilitate traffic flow.

Table 17: Proposed Road Reserves

	Details	Recommended widths
1.	Primary distributers	Main spine 60m Important through routes 30-36 m
2.	Main Roads in commercial or industrial area	25 m

3.	Commercial streets zone	15
4.	Industrial area streets	15
5.	Major access road exceeding 150 m in length	15
6.	Access road not exceeding 150 m in length (normal Residential Street)	12
7.	Normal residential street exceeding 150 m in length	15
8.	Normal residential street exceeding 500 m in length likely to become public transport route	18
9.	Cul-de-sac or short road serving not more than 6 subplots	6
10.	Service Lanes	6
11.	Cyclist Lanes	3
12.	Footpaths	2
	• For Cul-de-sac serving less than 10 plots a single footway is sufficient • Occasional obstructions shall nowhere reduce the footway width below **1.2 m.** • Pedestrians shall be physically separated from moving vehicles by a barrier such as an upstand kerb, open drain or wide verge	

Building Lines (set back lines)

The objective of setting building lines is to achieve a visual effect or reserve a certain access of area. While the building code proposes various sizes of setbacks to be observed, the following are expected to complement the same

Table 18: Minimum Setback of dwelling from Plot lines

Type of residential development	Minimum set-back in meters		
	Front	**Side**	**Rear**
1. Normal housing	6	3	4.5
2. Low cost housing	3	1.5	4.5
3. Slum rehabilitation and upgrading schemes	2.5	1.5	3

(Adapted from physical planning handbook)

- No buildings should be constructed on the open space, in front of the building created by the building line.
- Exception is made for a fence or wall which should not exceed 1.4 m (4.6 Ft) in height, or a portico, porch, step.

Road widening proposals

In order to meet traffic demand both present and future, various roads have been proposed for widening.

I. Primary roads

ROAD NAME	EXISTING WIDTH (m)	PROPOSED WIDTH (m)	LENGTH (Km)
Nairobi-Nakuru-Eldoret Highway	Varies	60	33.3
Nakuru-Nyahururu road (Solai road)	30	40	8.3
Nakuru-Kabarnet road	30	40	7.6
Nakuru-Njoro road	20	30	12
Dundori road	30	40	15

Pipeline-Elementaita road	20	30	6
West road/Baringo road-Naishi/Lare	20	30	10
Nakuru town-Menengai crater road	30	30	7
Eveready roundabout-Kaptembwo	25	30	3.4

II. Link roads

These are as summarized in the table below.

Road name	Neighbourhoods/nodes connected	Length (km)	Current Width (m)	Proposed width (m)
Mercy Njeri-Ngecha	Mercy Njeri to Ngecha	10	18	25
Mercy Njeri-A104	Mercy Njeri-Ngata	3	3	15
A104-Njoro road	Ngata-Njoro	8	12	
Njoro road-Baringo road/Naishi/Lare	Ngata-Barut	10		
Kanu Street	Kivumbini-Freehold/Langa Langa-Mwariki A	1.5	20	25
Ladhies Road/Ronald Ngala street	Naka-Industrial area/Afraha-Free hold	2.4	30	-
Biashara road	Shaabab/Industrial area	0.5		
Kabatini road	Maili Sita-Kabatini-Githioro	12	20	25
Heshima-Modern farm	Engashura-Modern farm	7.3		
Kiti-Mawanga-Githioro	Engashura-Wanyororo	9.8	9	18
Mbaruk road	Pipeline-Mbaruk centre	8		
A104-Elementaita road	Mbaruk and Pipeline	1	15	18
Heshima-Crater	Kirima/Kiamaina	4	12	15
Maili Saba-Kabatini road	Maili Saba-Kabatini	6.6		

III. By-passes

Name	Current width (m)	Proposed width (m)
Northern by-pass	9	40
Southern by-pass	9	40
Northern Inner by-pass 1	6	30
Northern Inner by-pass 2	6	30
Southern inner by-pass 1	25	30
Southern inner by-pass 2	12	30

Both the Northern and Southern by-passes have been proposed to have a minimum width of 40 m. The Northern and the Southern inner by passes have been proposed to have a minimum width of 30m.

IV. Residential Access Roads

All roads within residential areas that are below 6m have been proposed to be widened to 9m.

9.1.6 Rail Transport

The major railway line from Nairobi to Kisumu passes through Nakuru Town and branches to Eldoret town. However, there are no commuter services within the town.

Standard Gauge Railway (SGR) project

This will involve the development of a modern, high-capacity Standard Gauge Railway (SGR) transport system for both freight and passengers. It will connect Mombasa to Malaba (with a branch line to Kisumu) onward to Kampala, Kigali and Juba. The construction of the railway line through the planning area will be under the second phase of implementation which will run from Nairobi to Malaba/Kisumu. The feasibility studies and the preliminary designs are currently on going. The first phase of the project from Mombasa to Nairobi is currently under implementation.

The proposed standard gauge railway line is expected to run parallel to the Northern by-pass. Because of the expected increase in number of passengers and increase in volume of goods, it is proposed that a new railway station be set up in Nakuru. The existing railway station at Menengai should also be upgraded.

Once complete, the project is expected to enhance regional connectivity. This will increase business opportunities between Nakuru and other regions.

9.1.7 Air Transport

The planning area does not have any airport for public use. There is only one airstrip at the Lanet Military base which is used by the Army. The existing airstrip at Njoro is in poor condition and needs rehabilitation.

Based on the town's economic potential, it is proposed that an airport of International Standard should be set up for public use. Accordingly, Zone 7_6 on the detailed land use plan has been set aside for the proposed airport.

The Kenya Airports Authority (KAA) is currently carrying out studies establish the suitability of the site for construction of an airport.

Table 19: Transport Strategy Matrix

LOCATION	PROBLEM	PROPOSAL /ACTION PLAN	IMPLEMENTERS/ ACTORS	TIME FRAME
CBD	Traffic congestion along; • Nairobi-Nakuru-Eldoret highway especially within the town • Mburu Gichua road • Kenyatta Avenue • West road	1. Implement the proposed by-passes: • Northern by-passes (from A104- KITI- edge of Menengai forest- Njoro turn off) • Northern Inner by pass (from A104 at Kunste -B5-Maragoli road-Stanley Mathenge road-A104 at Total roundabout • Northern Innermost bypass (A104 near Nakuru War Memorial hospital-B4-A104 at the KFA roundabout) • Southern by-passes (from Pipeline through the edge of the National Park to Njoro turn off) • Southern Inner By-pass (from Lanet-Oginga Odinga street-A104 at KFA roundabout) • Southern Innermost bypass (Edge of L. Nakuru National Park-Shadrack Kimalel road-Ronald Ngala street-Viwandani road-A104 at the Total roundabout) 2. Elimination of junctions and replace with interchanges 3. Control of informal street hawking along Mburu Gichua & Gusii roads through relocation of street vendors to an alternative market place 4. Widening of Kenyatta Avenue and Mburu Gichua road	County Government KENHA KURA	Long term Short term
	Lack of NMT facilities along major CBD roads	Provision of the needed NMT facilities	County Government KURA	Medium term Short term
	Inadequate terminal facilities	Allocation of land for terminal facilities at Langa Langa and Eveready area	County Government	Medium term
	Inadequate parking spaces	Implementation of the proposed parking policy	County Government	Short term
	Inadequate/Lack of terminal facilities for Boda boda within the town	Designate parking spaces outside CBD (Proposed at Langa Langa and Eveready area)	County Government	Medium term
	Blocked drainage channels e.g. along Oginga Odinga avenue	Unclog blocked drainage channels along Oginga Odinga Avenue	County Government	Immediate

Afraha	Ronald Ngala Street is unpaved	Upgrade Ronald Ngala Street to Bitumen standards	County Government KURA	Medium term
Freehold/Langa Langa/Mwariki A	Narrow roads	Widen Kanu street-Baringo road-Sewage road	County Government KURA	Medium term
	Unmarked road surfaces	Marking of Kanu street, Baringo road and Sewage road		Short term
Ngata	Unmarked road surfaces	Marking of Njoro road	KURA	Immediate
Ronda & Barut	Lack of Matatu stages	Set aside land for the setting up of the terminal facilities	County Government	Short term
Githima & Industrial area	Traffic accidents common along the main highway especially at the Kaloleni round about	Construction of a footbridge Erection of speed pumps along this stretch	County Government KENHA Traffic department	Short term Medium term
Industrial area	Inadequate parking bays for heavy commercial vehicles	Setting up of a parking bay at Industrial area (Eveready area)	County Government	Short term
Langa Langa, Barut & Ronda	Lack of transport terminals (bus parks)	Setting up of alternative terminal facilities	County Government	Short term
CBD, Industrial area, Praire, Free area, Pipeline, Kiamunyi, Kagoto/Kiamaina	Traffic accidents Lack/inadequate footbridges along the major road in these areas	Construction of foot bridges at Total round about, Free area, at Olive Inn, Lanet Junction, Heshima	County Government KENHA KURA	Medium term
Along major roads	Lack of points of interchanges	At junction of A104 & B5 (around Hotel Kunste, at Njoro turn off (at KFA Roundabout)	County Government KeNHA KURA	Long term
Most neighbourhoods	Narrow roads	Widening of the proposed Link roads Road widening within neighbourhoods according to traffic demand	County Government KURA KERRA	Medium term
	Poor state of roads	Upgrade loose surface roads to gravel Upgrade major link roads to Bitumen standards	County Government KURA & KERRA	Medium term
	Lack of/Poor drainage in some roads	Unclog blocked drainage channels Construct drainage channels where none exists	County Government KURA & KERRA	Short term
	Insufficient road furniture (road signs) in some of the roads	Implement the proposed road furniture project in Urban areas	County Government KeNHA, KURA KERRA	Short term

	Insufficient/Lack of Boda-boda sheds	Construction of Boda-boda sheds at strategic places within the planning area	County Government	Short term
	Inadequate/Lack of NMT provision along major roads	Widening of the major roads Construction of walkways along the major roads	County Government KeNHA KURA KERRA	Medium term
Planning area	Lack of use of rail transport for mass transport	Implement the on-going Standard Gauge Railway (SGR)	Kenya Railways Corporation Ministry of Transport and Infrastructure	Long term
Planning area	Lack of an airport/airstrip for public use	Construction of the proposed an International Airport within Nakuru County	Kenya Airports Authority Ministry of Transport and Infrastructure	Long term

9.2 Water and Sanitation Strategy

9.2.1 Water

Analysis of Present Water Supply Situation

Attempts have been made to analyze the current water supply systems in relation to the population distribution and land use patterns in Nakuru. Findings indicate that the sparsely populated areas are to the west and south of Nakuru and they cover the areas of Njoro, Mosop, Kabatini, and Kiambogo among others. These areas are mainly served by water vendors (water kiosks) and a few boreholes. On the other hand the piped water supply network is concentrated in the more densely populated areas around the CBD (Figure 63).

In regards to land use patterns, piped water supply is mostly within the areas dominated by commercial and industrial activities, especially around the CBD and the industrial zone. A few residential areas are also covered by these networks even though the bulk or residences are served by water vendors and boreholes. Furthermore, most of the water supply lines are aligned to transportation corridors, mainly roads (Figure 64).

Emerging from the analysis is that there are critical deficiencies in the current water supply systems. In response to this, desirable planning actions have been proposed as follows;

a) Key populated area to the north of the project area lie outside the areas currently served by the water network system. This areas form the priority areas for water supply expansion. The immediate focus is to bring these areas into the system because the population densities dictate the economic viability and health benefits to be immediately accrued by such an action. In this case the urban densification and development of properties have preceded the service provision. Regularization is necessary in order to control quality of further urban development. Examples of these areas are Kiambogo, Lanet/Umoja and Nakuru East.

b) Then there are the areas which are a pointer to the growth patterns. These areas may not be populated densely at the moment. However, going by trend analysis, these areas will experience significant growth in the coming years. *In this case services development in terms of water infrastructure development should precede the development trend*s in order to facilitate controlled growth. Examples of these areas are Menengai, part of Mosop, Njoro, part of Kiambogo, Kabatini and Barut

c) Areas into which services must be directed, in line with the suitably identified strategic vision for land use development include identified and suitable new economic activity zones (industrial areas in Barut and Menengai near London), EPZs and residential areas that are not currently served.

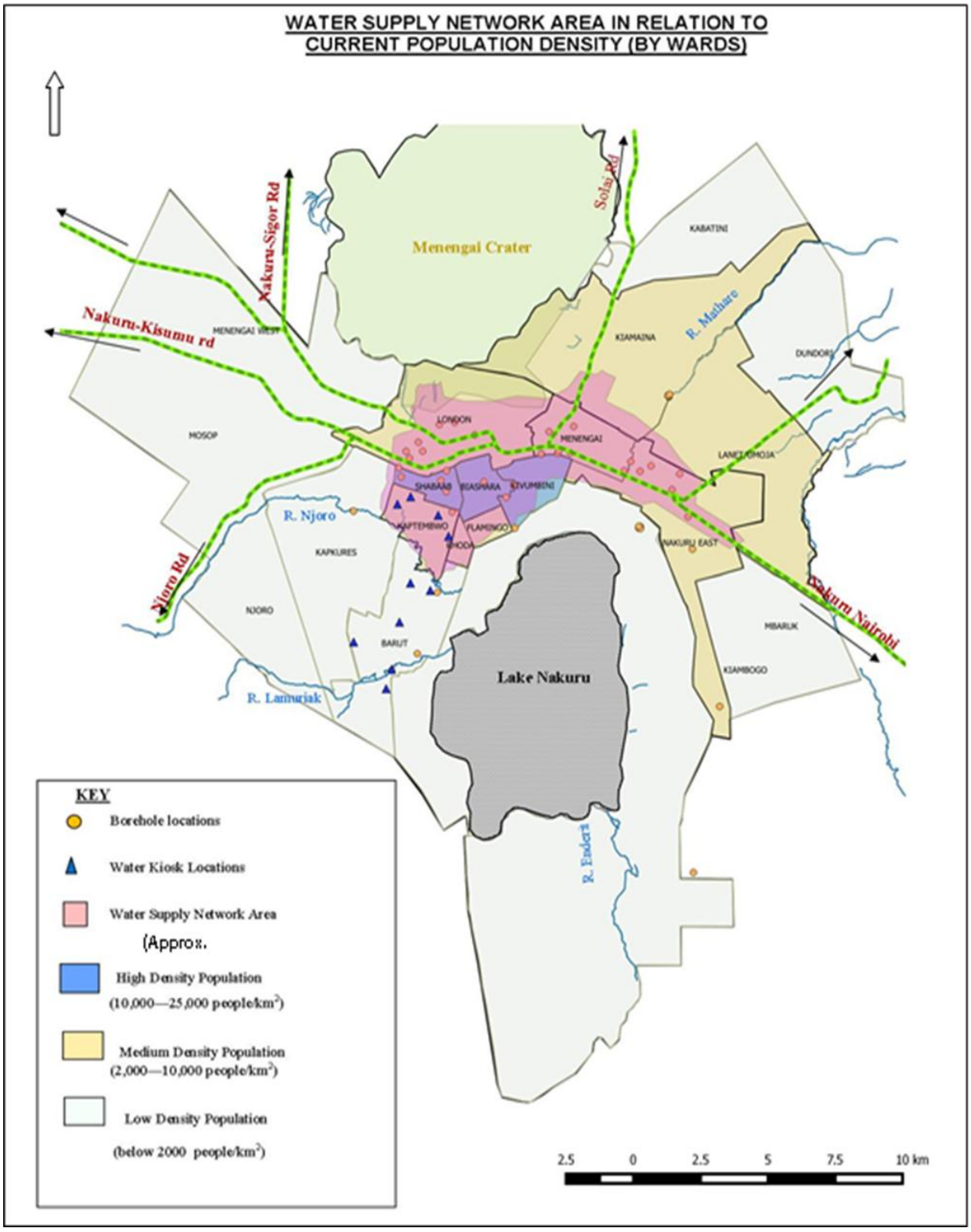


Figure 63: Water Supply Network Area in Relation to the Current Population Density by Wards

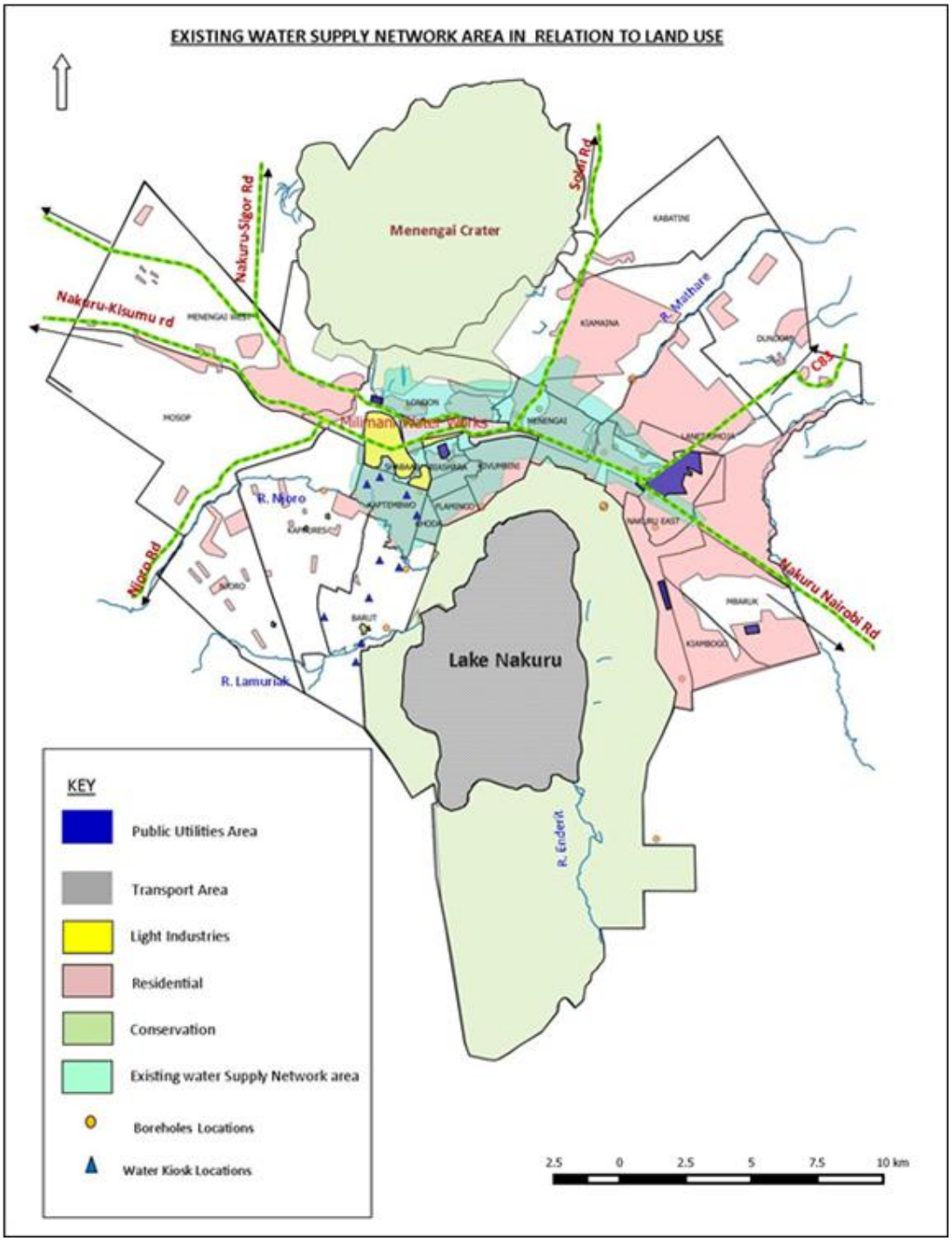


Figure 64: Existing Water Supply Network Area in Relation to Land Use

Future Water Situation

Projections of water demand over the project horizon are based on analysis of the current consumption patterns in the project area, observed patterns in the other province as well as the projected changes in demographic patterns. According to Water Design Manual for Water Supply in Kenya (2005), for design purposes domestic water demand is estimated at 180, 120, 60, and 30 litres per capita per day (l/c/d) for high, medium, low cost and peri-urban settlements. In their report of 1993, JICA projected water demand for Nakuru

municipality to increase from 35,520 m^3/day in 1990 to 79,720 m^3 /day in 2005. Table 6.10 refers.

Table 20: Projected Water Demand

Year	1990	1995	2000	2005
Population projections	295,600	412,000	574,000	752,000
Total Daily Water Demand (in m3/day)	35,520	45,190	60,690	79,720

Source: (JICA, 1993)

The Rift Valley Water Service Board, in their annual report of 2014, projected an water demand increase for Nakuru from 10.25 million m^3 per annum in 2004 for a population of 274,667 to 15.29 million m^3 (42,890 m^3/day) for a 2015 population of 401,000. The difference in demand projection between JICA and RVWSB may be due to the difference in growth rate projections for population at the time of calculation. According to the 2009 census data, the growth rate for Nakuru has been falling over the years

The Nakuru Strategic Structure Action Plan of 1999 estimated the water supply to Nakuru Town then to be 50,000 m^3 /day. This was against an estimated water demand of 75,000 m^3 /day. It further projected that by the year 2020 the total water demand will have risen to 103,000 m^3 /day. If the total supply remains the same then there will be a shortfall of 53,000 m^3 /day. Both these earlier projections may have used higher growth rates that those recently established in the 2009 census, as a basis for estimation of future populations.

However, based on the projections of the 2009 population census for the project area, a projection for water demand to the year 2030 is made as illustrated in Table 6.11 below. According to MWI design manual guidelines, an average figure of 100 litres /c/day* is used to derive water demand for the project area.

Table 21: Projected Daily Demand*

Year	2009	2014	2018	2022	2026	2030	2034
Population projections* *	432,459	526,302	749,092	876,332	1,025,184	1,199,320	1,403,034
Total daily water demand (in m^3/day) *	43,246	52,630	74,909	87,633	102,518	119,932	140,303

*adopted per capita domestic water demand in m^3/day is 0.1 m^3 (100 litres) per capita per day

** based on projected 2009 population 4% growth rate per annum

It should be noted that the above computed projections of water demand exclude commercial and industrial demand. The current daily water demand in 2014 is estimated by NAWASCO and RVWSB to be 70,000 m^3.

Challenges and Constraints

The following key challenges/issues have been experienced in the Water sector:

a) The situation in the area has been aggravated by degradation of water catchments leading to reduced ground water recharge. In addition the following factors have contributed to the water scarcity; limited sources, competing uses, vastness of the area and global warming

b) Poor and/ or dilapidated state of water services infrastructure: Most of the water services infrastructure is in poor condition because it has either gone beyond its useful life or has not been properly maintained as a result of many factors
c) High cost of operations and inadequate institutional capacity of Water Services Providers
d) Poor water quality: Due to our location in the Great Rift Valley, ground water has high concentration of fluorides and other minerals beyond acceptable standards.
e) Low levels of water coverage: There exists a large population not provided with water. Some of the causes of this state of affairs are lack of planned investment coupled with a high population influx into the project area in the recent years
f) High level of Non-Revenue Water (Unaccounted for water): A significant amount of water produced by WSPs is un-accounted for and is therefore not converted into revenue. This is due to technical and administrative losses.
g) Inadequate investment in water infrastructure: To achieve the Millennium development Goals the Board requires an average investment.
h) Transitional challenges emanating from the following:
    i. Community resistance
    ii. Roles of the various stakeholders
    iii. Attitude change (ownership of water)
    iv. Identification and transfer of assets
    v. Lack of public awareness of water sector reforms including legal requirements
i) Challenges in upgrading management of services operated by community based organizations.

Based on the above projections, it is evident that significant investment in the water sector is necessary to meet the future demands and to successfully meet the goals of the strategic planning.

Proposed Plans for Development of Water Supply Facilities

Nakuru is already a net water deficient urban area with the Municipal water supply able to meet only 40% of the current demand. In view of the increased demand, there is need to adopt a long term strategy toward the financing and implementation of additional water facilities.

The current water sources are derived from ground water and surface water; mainly within the Aberdare ranges. With the growth in land use and settlement moving towards the west of the city, consideration should now be made to consider water sources originating from the Mau forest ranges.

Already, there are plans to construct the Itare dam within Mau forest. Once the project is completed, it is expected that it will address the deficiency in the supply of water not only within Nakuru town but also within the entire County. It will be able to deliver part of the 100,000 m^3/day to serve the project area. This will bring much relief to the western area of the project area namely Njoro, Mosop Baruti, Kaptembwa and Njoro.

Additionally, the Chemusus Dam in Eldama Ravine was recently completed in 2014. Although the resources from the 35,000 m^3 per day production is intended to serve Baringo County, it is viable to consider extending part of this supply to serve the north west reach of the project area which is undergoing rapid development. This should cover the areas of

Menengai west and London and industrial area. The existing water sources can then be concentrated to serve the western areas of the city.

The figure below represents the current and the possible future scenario based on the above proposals.

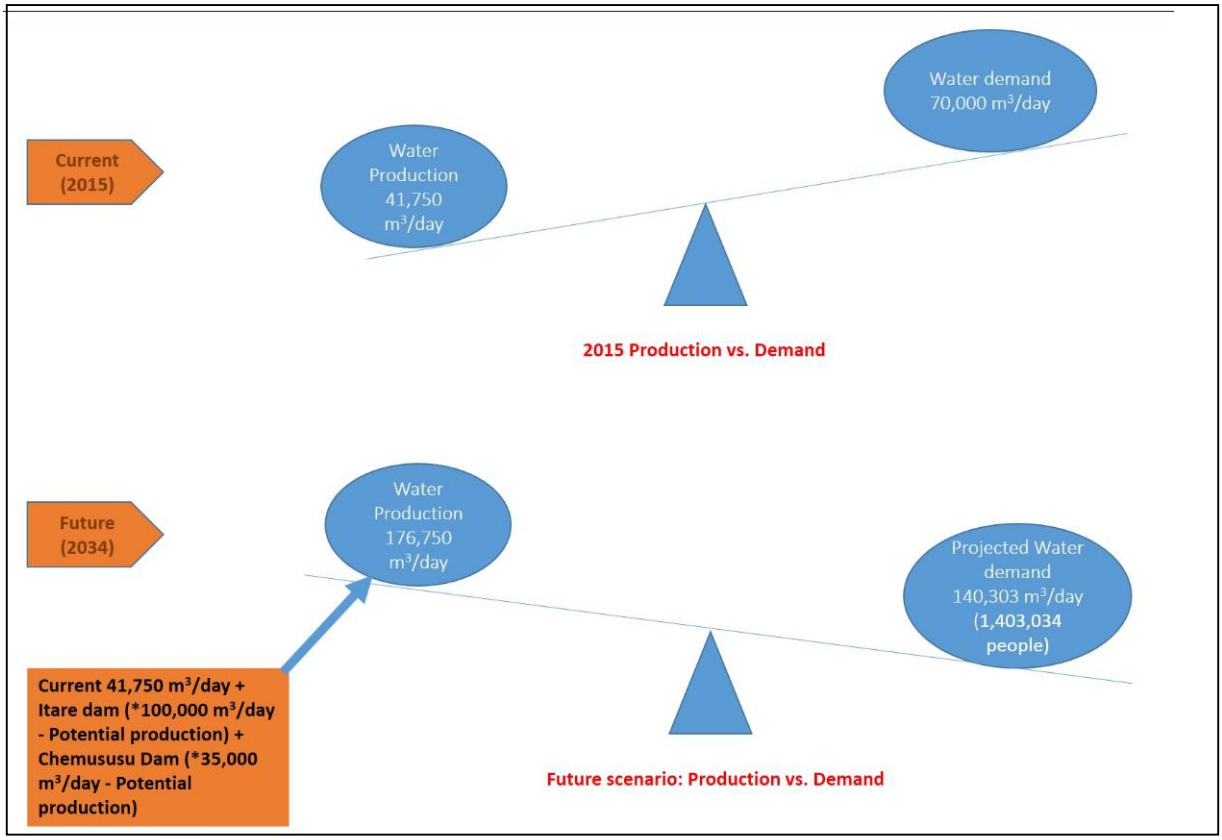


Figure 65: Possible Change in the Water Supply Scenario

9.2.2 Sewerage System

Analysis of the Existing Situation

Sewerage system is an integral part of the infrastructure in an urban environment. It provides for the safe collection and disposal of domestic and industrial liquid wastes. In Nakuru, sewerage collection and disposal is done through the conventional sewer, cesspools, septic tanks and pit latrines.

The sewerage reticulation network coverage is about 24.7 $Km^{2.}$ The sewer network covers about 50% of the water supply area and constitutes about 4.17% of the planning area. It is noteworthy that the sewerage coverage matches the main mode of human waste disposal in urban households of 25% shown in table 6.9. Frequent blockages and overflows are often reported.

In general there is low sewerage connection rate. According to JICA (1994) and Nakuru Municipality strategic structure plan of 1999, the sewer network suffers from leakage, and the water supply volume in Nakuru Municipality is lower than planned, resulting in low volume of sewage water inflow to the sewage treatment works. Bad smell originating from

blocked sewer pipes, insufficient water supply and low water pressure and poor security is reflected by the high rate of vandalism.

The sewerage network covers the CBD, Industrial Area, and Municipal Council of Nakuru Housing Estates. Shabab, Biashara, Kivumbini. Pangani, Lakeview, Racetrack, Gilani Estate, Prisons, Lanet Army Barracks and their immediate surroundings

London, Menengai, Kaptembwo and Flamingo are partially covered by the sewerage network. Consideration should be made to provide sewerage services to the whole area covered by these wards since they already have piped water and the population densities point to public health and economic benefits being accrued

Cess-pools and septic tanks are common mainly in high income areas such as Milimani and in public institutions as well as in some newly settled areas e.g. the middle and high income residential areas of Kiamunyi, Teachers and Naka. The use of pit latrines is common in the low income areas, which also have high population density.

Nakuru has two conventional sewage treatment plants with a combined capacity of 16,200 m^3 /day managed by NAWASCO. The Old Town STP (6,600 m3/day) which is located near the north shore of Lake Nakuru. The Njoro STP (9,600 m3/day) which is located next to Njoro River, which drains into Lake Nakuru. They were rehabilitated and expanded in the 1994-1997 under the JICA Nakuru Sewerage Works Rehabilitation.

The Njoro sewerage lagoons located in Mbaruk and Kivumbini wards have a potential of treating waste water from the wards currently not covered by the sewerage system. There are no notable problems with the quality of the treated water, and the sewerage project can be credited with helping to reduce the load on the aquatic environment of Lake Nakuru.

Both domestic and industrial effluent is received for treatment. About 60% received at the Njoro STP is from industrial operations. Recent findings indicate that the Njoro STP receives 52.8% & Old town STP 42.2% of the waste.

The combined discharge volume is estimated at 7,863 m^3/day against the target design volume of 16,200 m^3 /day. This demonstrates the need to increase sewer reticulation of the service area.

It is noted that sewerage projects, by themselves do not yield any direct economic benefits. Hence they are often accorded a low development priority. Executing such projects thus become challenging.

A study on recycling and re-use of sewage effluent and sludge undertaken for the ministry of Water and Irrigation – Water Services Regulatory Board dated November 2009 outlines some examples of treated waste water reuse. Baseline data from the 2009 National population census presents the sanitation data for Nakuru as shown in Table 6.9 below:-

Table 22: Main mode of Human waste disposal in urban households

Mode of Disposal	Households	Percent (%)
Main Sewer	24,770	25.77
Septic Tank	7,484	7.79
Cess Pool	418	0.43
VIP Pit Latrine	8,437	8.78
Pit Latrine	54,556	56.75

(Covered/Uncovered)		
Bucket	285	0.30
Bush	126	0.13
Other	56	0.06
Total	**96,132**	**100**

Source KNBS (2009); Table 9b; Vol II

From the above, pit latrines are the most commonly used followed by discharge into main sewers.

Considering the limited storage capacity of pit latrines (limited depth), and poor soils with regards to construction of pit latrines i.e. collapsible soils, the residents foresee a situation in which there will be a lack of space to construct new pits. In addition, pit latrines are often in poor conditions posing direct health threats to the users.

In a nutshell, the main challenge touching on sewerage systems is very low or non-existent sewerage services: Sewerage plants have with very low connectivity. There is urgent need to prepare and implement sewerage systems.

Proposed Sewer plan

Since the existing Sewerage Treatment Plants are currently operating below their capacity, it is proposed that the existing sewer network be extended to serve emerging population centres that are currently not covered. The Njoro sewerage lagoons located in Mbaruk and Kivumbini wards have a potential of treating waste water from the wards currently not covered by the sewerage system.

Mechanisms for source control of industrial discharges also need to be put in place to avoid overloading and damage to the Njoro STP.

London, Menengai, Kaptembwo and Flamingo are partially covered by the sewerage pipe network. It is proposed that the sewerage network be extended to provide sewerage services to the whole area covered by these wards since they already have piped water and they are densely populated.

From topography considerations, it is observed that it is possible to extend gravity operated sewerage trunk mains to cover parts of Mosop, Lanet/Umoja, Kiamaina and Njoro wards

The sustainability and independent realization of effects from the expanded sewerage network and treatment requires improved management by NAWASCO. Amongst the measures necessary is improved revenue collection in order to increase the volume of water supplied to reach the planned supply volume.

It is however worth noting that the actual network will be an outcome of detailed topographic survey and feasibility study.

Furthermore, having identified Nakuru as a water scarce area, reuse of treated sewerage should be promoted in future planning. Aspects of reuse (including resources recovery form sludge – fertilizer, manure and energy such as methane gas and reuse of treated water for irrigation after disinfection) need to be promoted too.

9.2.3 Solid Waste Management

Solid waste management has long been a menace in Kenya, particularly in urban areas such as Nakuru. This is due to the process of urbanization which has driven majority of urban dwellers to a consumer based lifestyle. The result is ever rising waste generation rates.

If left uncontrolled, it will not only be an aesthetic problem, but also pose serious health risks. This can be aggravated if hazardous material is present in the waste. It is therefore important that waste is collected from all sources as efficiently as possible, and disposed of in controlled disposal facilities.

The former Municipal Council of Nakuru, under both the Public Health Act and Local Government Act, was responsible for SWM services in its area of jurisdiction. In accordance to the Constitution of Kenya 2010, this responsibility has been assigned to the County Government of Nakuru which has been mandated to ensure an affordable, effective and efficient solid waste management system within Nakuru County.

In Nakuru town, the CBD and informal settlements including Mwariki A, Rhonda, Kaptembwo, Karatina, Lanet hill, Teachers/KITI and Lake View have been identified to be experiencing poor SWM. In the CBD, poor SWM is manifested in the littered streets. This is usually as a result of wind-blown litter and illegal dumping of uncollected waste. The town should implement the county's solid waste bylaws and establish strong monitoring mechanisms to mitigate illegal dumping.

Informal settlements on the other hand, are disadvantaged in terms of receiving SWM services due to low or inexistent accessibility. To solve this challenge, it is essential that the County Government of Nakuru does slum upgrading to restore accessibility and facilitate SWM service delivery.

In relation to final disposal of solid waste, the search for an acceptable disposal site within a socio-economically viable radius of collection operations has long been a challenge in Nakuru. The Existing Kyoto dumpsite is in poor state due to mismanagement. In addition, the dumpsite is full and waste spilling over into the surrounding development rendering it a threat to public health. The fact that the dumpsite is located critically close to human settlements further aggravates the situation.

In the short term, this plan proposes rehabilitation of the existing dumpsite. This short term proposal has been adopted from the CIDP for Nakuru County. In the long term however, bearing in mind the need for a new disposal site which incorporates modern technology, two sites have been identified for possible siting of a sanitary landfill. Both the sites are located on the south eastern edge of the planning area boundary. The first Site A is located in Pipeline area just outside the boundary of the planning area. The site is privately owned former quarry which now lies unutilized hence can be acquired as soon as a feasibility study is done regarding the same. The site is currently advertised for sale hence available for purchase by the County Government.

The other Site B which has been proposed is located across the road within the Delamere farm. The site is currently leased to the miners for quarrying and will similarly be available for sale in the future. The opportunity of using this site for landfill siting however, can only be

explored once the quarry stops functioning. The two proposed sites are shown on figure below.

The amount of waste disposed at the new landfill is expected to reduce significantly considering if the RRR concept (Reuse, Recycle and Reduce) is adopted by waste generators in the town including households and business enterprises. This necessitates immediate and constant awareness campaigns and civic education on sustainable solid waste management practices.

In addition, there is need for the town authority in charge to introduce a well-designed, compulsory service charging system to the residents for solid waste collection in order to facilitate service provision including funding the purchase of trucks and collection equipment. It is further proposed that the charging system adopted has a positive effect in reducing waste generation through offering incentives for solid waste generators who minimize waste by lowering their chargeable tariff. This initiative also requires intensive social marketing and public goodwill which can also be achieved through the proposed awareness raising and civic education.

9.3 community facilities

9.3.1 Educational Facilities

Two zones Zone 2_1 and Zone 2_2 have been earmarked exclusively for educational development. Together they cover a total area of 14 Km^2 representing 2.3 % of the total land within Nakuru town.

The Rift Valley Institute of Science and Technology occupies 1138.26 Hectares in size Nakuru High and other schools currently occupy 20.45 Hectares in size.

It is expected that more land for educational development will be set aside as more land is subdivided for urban development.

Education as an important ingredient of socio-economic development empowers members of society to perform their roles both efficiently and effectively thereby enhancing labour returns. Education enhances human capacity through development of knowledge necessary for production hence influences development.

With regards to primary schools, the Physical Planning Handbook, 2007 proposes a primary school to serve a population of 4000 persons residing within a 500 m to 2 Km radius. It further provides a minimum land requirement of 3.9 hectares to be reserved for each proposed primary school assuming that there will be 40 pupils per class and the classes will be from standard 1-8 given that the school has prospects to expand its facilities in future.

A secondary school on the other hand is proposed for a population of 8000 persons residing within a 500 m to 3 Km radius. The proposed minimum land requirement for each secondary school is 3.4 ha for a 1-stream school, 3.5 ha for a 2-stream school and 4.5 ha for a 3-stream school. If accommodation is to be provided for teaching staff, an additional 0.8 hectares should be provided for each school. Schools are however encouraged to build storied buildings for economy.

Further, in all cases, educational institutions should be integrated with major open spaces whenever possible so as to encourage the sharing of the open spaces and playgrounds with

members of the public. This saves on space besides encouraging social interactions and social inclusiveness.

Table 23 summaries the existing and the proposed number of primary and secondary schools per neighbourhood. The proposals have been made based on a number of factors including; the reviewed guidelines, population projections (contributing to the projected deficit in supply of educational facilities) and the assumptions of exponential growth and limitations of space. It is important also that other strategic interventions such as merging some of the schools, and increasing enrolment in schools be sought to meet impending deficit.

Assuming each of the proposed schools will have three streams, the proposal for educational facilities is phased as in table below

Table 23: Proposed Educational Facilities

Neighbourhood	Pop	2014		2020 (proposed)	2025 (proposed)	2030 (proposed)	2034 (proposed)
Mwariki A	22308	Pri	1	2	-	1	-
		Sec	-	1	1	-	-
Barut East	13701	Pri	4	1	-	-	1
		Sec	1	1	-	-	-
Barut West	10060	Pri	3	1	-	-	1
		Sec	-	1	-	-	-
Rhoda	51551	Pri	2	5	1	1	1
		Sec	2	2	-	1	-
Kaptembwo	42178	Pri	3	4	1	1	1
		Sec	1	2	-	1	-
Ngata	14092	Pri	1	1	-	1	-
		Sec	-	1	-	-	1
Mangu	6665	Pri	3	-	-	1	-
		Sec	-	1	-	-	-
Kiamunyi	39537	Pri	1	1	-	-	-
		Sec	2	-	-	-	-
Shabaab	13818	Pri	3	1	-	-	-
		Sec		1	-	-	-
London Showground/Milimani	14751	Pri	2	1	1	-	1
		Sec	-	1	-	-	1
Kiamaina/Kirima	17279	Pri	1	2	-	1	-
		Sec	1	1	-	1	2
Kabatini	13459	Pri	3	1	-	1	-
		Sec	1	1	-	-	-
Engashura	32255	Pri	2	3	1	1	1
		Sec	-	2	-	1	-
Teachers/Workers	4021	Pri	7	-	-	-	-
		Sec	-	1	-	-	-
Murunyu/Wanyororo	18746	Pri	5	1	-	1	1
		Sec	3	-	1	-	-
Langa Langa	39376	Pri	6	3	1	1	1
		Sec	1	2	1	-	1
Pipeline/Mbaruk	6722	Pri	3	-	-	1	-
		Sec	1	-	-	1	-
Kiamunyeki/Modern	9945	Pri	4	-	-	1	-
		Sec	3	-	-	-	1
Muguga	10232	Pri	2	1	-	-	-
		Sec	-	1	-	-	-

Ndege	6630	Pri	3	-	-	1	-
		Sec	2	-	-	-	-
Umoja/Nyonjoro	9945	Pri	4	-	-	1	-
		Sec	2	-	-	-	1
Freehold	20050	Pri	6	1	-	1	
		Sec	6	-	-	-	-
Afraha	10029	Pri	4	-	-	1	-
		Sec	1	1	-	-	-
Kivumbini	17352	Pri	7	-	1	-	1
		Sec	6	-	-	-	1
Section 58	11568	Pri	4	-	1	-	-
		Sec	3	-	-	-	-
Naka	10307	Pri	2	1	-	1	-
		Sec	-	1	-	-	-
Free area	10879	Pri	3	1	-	-	-
		Sec	-	1	-	1	-
Praire	16727	Pri	7	-	-	1	-
		sec	6	-	-	-	1
Mwariki B	10021	Pri	1	1	-	1	-
		Sec	-	1	-	-	-

9.3.2 Health Facilities

The quality of a town's population depends upon the access to quality health services. Provision of health facilities is therefore a key requirement for development. The Urban Areas and Cities Act, 2011 in the first schedule provides for a national hospital, a referral hospital and a county hospital besides other health facilities, for an urban area with a population of 500,000 and above. The preferred location for health services should be easily accessible by an ambulance or on foot. Minimum land requirements for health facilities as proposed by the physical planning handbook are as follows:

- National referral hospital- 20 hectares
- Provincial hospital- 8 hectares
- District hospital -8 hectares
- Sub-district hospital -4 hectares
- Health center- 3 hectares
- Sub-health center- 2 hectares
- Nursing Homes- 0.4 hectares
- Veterinary clinic- 0.1 hectares

Basic infrastructural services such as toilets and bathrooms are a key component of health facilities and hence should be provided for sufficiently.

Considering the current and projected demand for health services, and despite resource limitations, the upgrading of Rift Valley Provincial General Hospital to a referral hospital is hereby proposed. In addition, a County Hospital is proposed for Nakuru town. Other proposed health facilities in Nakuru town are shown in the table 26 below;

Table 24: Proposed Health Facilities

Neighbourhood	**Type**	**2015**		**2020**	**2025**	**2030**	**2034**
		Existing	**proposed**	**proposed**	**proposed**	**proposed**	**proposed**
Mwariki A	DISP	-	5	1	1	1	2
	H/C		2	0	0	1	0
Barut East	DISP	1	3	0	0	1	1

	H/C		1	0	0	1	0
Barut West	DISP		2	1	0	1	0
	H/C		1	0	0	0	0
Rhoda	DISP		11	2	3	3	4
	H/C		4	0	1	1	2
Kaptembwo	DISP		9	2	2	3	2
	H/C		3	1	0	1	1
Ngata	DISP		3	1	0	1	1
	H/C	1	1	0	0	1	0
Mangu	DISP		1	1	0	0	1
	H/C		0	1		0	0
Kiamunyi	DISP		1	1	0	0	1
	H/C		0	1	0	0	0
Shabaab	DISP		2	1	0	1	1
	H/C		1	0	0	0	
London	HOSP	1					1
Showground/Mili	DISP		3	1	1	1	0
mani	H/C	1	1	0	1	0	0
Kiamaina/Kirima	DISP		4	0	1	1	2
	H/C		1	0	1	0	1
Kabatini	DISP		3	0	1	1	1
	H/C		1	0	0	1	0
Teachers/Worker	DISP		1	0	0	1	0
s	H/C		0	0	0	1	0
Murunyu/Wanyor	DISP		4	1	1	1	1
oro	H/C		1	1	0	0	1
Langa Langa	DISP	1	8	2	2	2	2
	H/C		3	0	1	1	1
Pipeline/Mbaruk	DISP		1	1	0	1	0
	H/C		0	1	0	0	0
Kiamunyeki/Mode	DISP		2	1	0	1	0
rn	H/C		1	0	0	0	0
Muguga	DISP		2	1	0	1	0
	H/C		1	0	0	0	0
Ndege	DISP		1	1	0	0	1
	H/C		0	1	0	0	0
Umoja/Nyonjoro	DISP		2	1	0	1	0
	H/C		1	0	0	0	0
Freehold	DISP		4	1	1	2	1
	H/C		1	1	0		0
Afraha	HOSP					1	0
	DISP	1	2	1	0	0	0
	H/C		1	0	0	0	1

Kivumbini	DISP		4	0	1	2	1
	H/C		1	0	0	0	1
Section 58	HOSP	1	0				
	DISP	1	2	0	1	0	1
	H/C		1	0	0		1
Naka	DISP		2	1	0	1	1
	H/C		1	0	0	0	1
Free area	DISP		2	1	0	1	1
	H/C		1	0	0	0	1
Praire	DISP	1	3	1	1	0	1
	H/C		1	0	1	0	0

9.3.3 Other Social Facilities

Other proposals made for social facilities are as summarized in table 25 below

Table 25: Other proposed social facilities

Facility	Existing	Proposed
LIBRARY	1 National Library	4 proposed, 1 for every Sub-County
STADIUM	Afraha stadium	• Upgrade Afraha stadium to National status • 1 additional stadium
PLAYGROUNDS	• Kisulisuli • Kamukunji • Shabaab	• 3 proposed to be located within - Bahati - Rongai - Gilgil sub-counties
FIRE STATIONS	One fire station at Kivumbini	• Three (3) more fire stations at - Industrial area - Pipeline area - KITI/Teachers area
THEATRE	None	• 1 proposed
ARCHIVE	None	• 1 proposed

Cemetery

There are three cemeteries in the planning area including the one at Nakuru north located near the Rift Valley Provincial General Hospital, another one at Nakuru South in Manyani near L. Nakuru National Park and the PCEA cemetery. There is also a crematorium at Kivumbini.

The three cemeteries are full to capacity and there is hence need to acquire a new site for a cemetery.

The identified site should meet the following physical planning and public health guidelines and considerations,

i. Soil excavatability- for ease of excavating the graves

ii. Soil permeability- which affects organic pollutants' ability to infiltrate into groundwater;
iii. The position with respect to domestic water supplies- specifically, if groundwater resources are being used the position with respect to drainage features, so that storm water runoff does not convey pollutants to streams or pose a threat of exposing graves. The position of the 1:50 flood line or a more stringent flood line should be part of the investigation;
iv. Site drainage- which influences the ingress of rain into the soil and therefore the graves, with the possibility of pollutants then being conveyed from the site through the soil;
v. Site topography- which influences access to graves as well as surface and subsurface drainage.
vi. Basal buffer zone- which relates to the depth of soil (buffer) between the deepest grave and the water table (permanent or perched);
vii. Grave stability -relates to the stability of the soil around the grave from the time of excavation to the time of interment;
viii. Soil workability- which refers to the ease of compaction; and
ix. Cemetery size - which relates to the requirements of future grave sites and development pressures.

In addition, the site should be subjected to a feasibility study to further determine its suitability for the proposed use. If it meets the minimum requirements, the County Government of Nakuru will then put in place legal mechanisms to acquire the land. This may involve carrying out compulsory acquisition.

From our assessment, Ngata area is suitable for a cemetery as mapped on the integrated social facilities map. It is possible that an alternative site may be identified outside the planning area but it should be within the confines of Nakuru County. Preferably, this should not be more than 20 kilometres away from the core of the town.

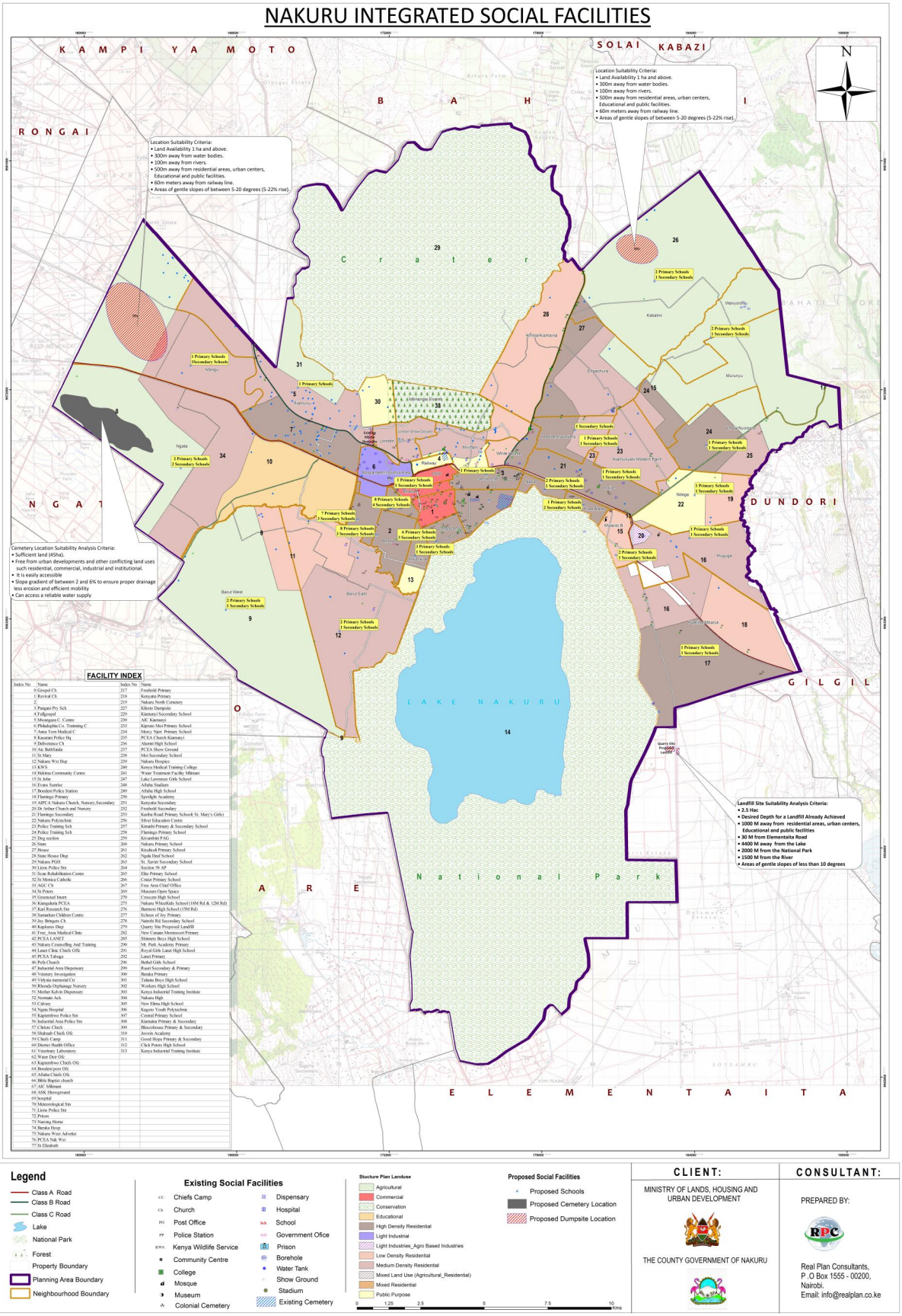


Figure 66: Social Facility Proposals

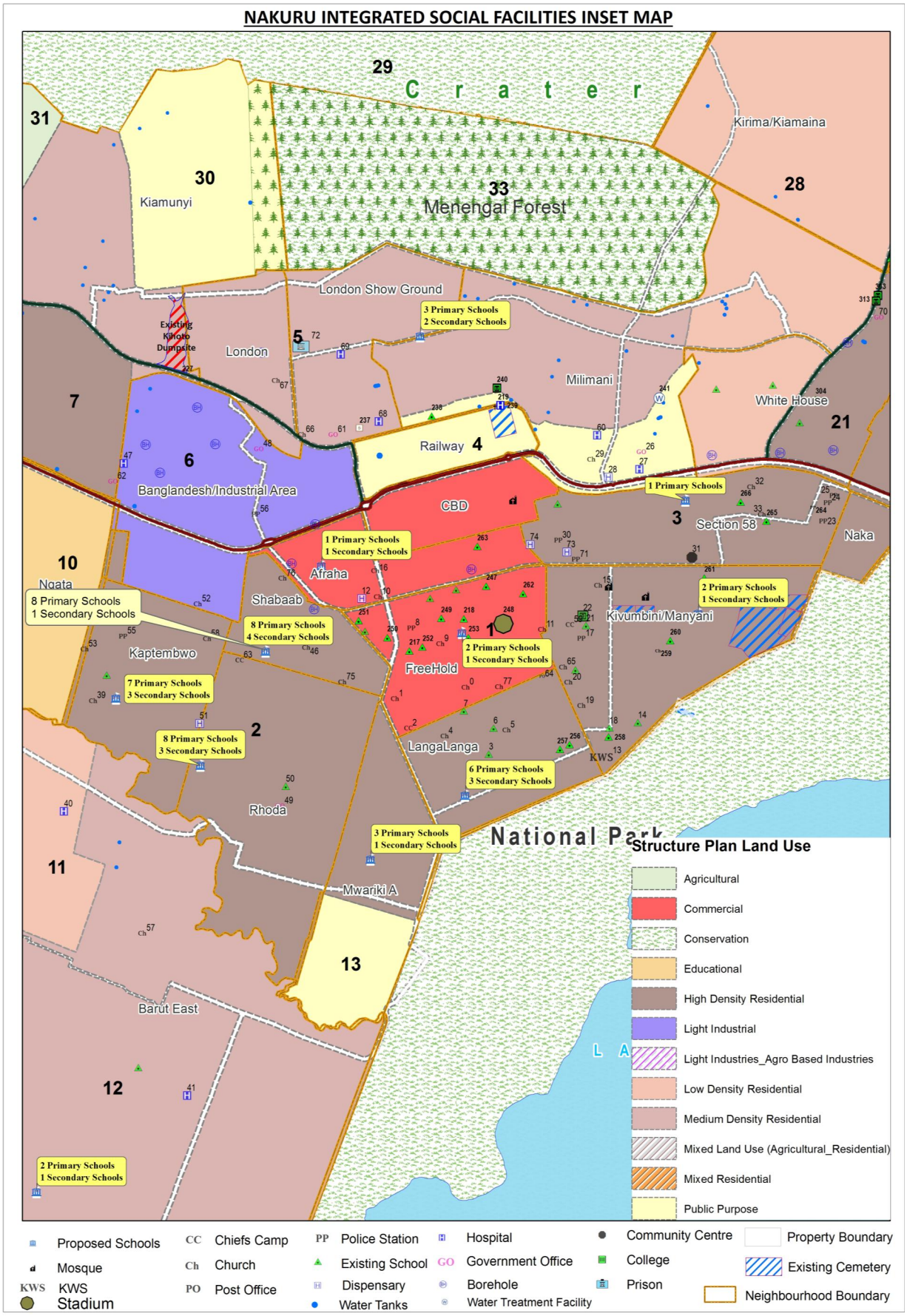


Figure 67: Social Facilities Inset

9.5 Environmental Management Plan (EMP)

The situational analysis of Nakuru demonstrated that there were significant environmental setbacks that required necessary attention. In response to this, the planning team proposes a comprehensive environmental strategy for the town. The strategy is anchored on Article 42 of the Constitution of Kenya (2010) which provides for the right to a clean and healthy environment. It is also based on the following principles as provided for in the Environmental Management and Coordination Act (1999):

- Intergenerational equity
- Polluter pays-principle
- Precautionary principle
- Principle of participation in development of policies, plan and processes for the management of environment.

The strategy provides for a basis to promote sound conservation and protection of ecologically fragile areas such as Lake Nakuru National Park, Menengai forest and crater, Bahati and Ndundori forests among others.

Environmental concerns

The planning area has the following environmentally sensitive areas; Langa Langa, Rhoda, Kaptembwo, Kiamaina, London, Kyoto dumpsite, Free-area, Lake Nakuru and Menengai.

The negative environmental concerns that cut across the planning area include:

ENVIRONMENTAL CONCERN	AREAS
Poor solid waste disposal and management	Rhonda, Kaptembwo, Githima, Bondeni ; Railways quarters ; the urban nodes (Mchanganyiko, Itherero, Barnabas, Maili Tatu, Maili Sita, Maili Saba, Githioro)
Poor drainage of storm water	Built up areas of the CBD; Kaptembwo, Rhoda, Mwariki A, Langa Langa, Shabab
Limited storage of pit latrines	Kiamunyi, Rhonda, Baruti, Gichoho, Naishi, Mbaruk
Inadequate coverage of water and sanitation reticulation network	Mosop, Lanet, Kiamaina, Njoro wards
High fluoride content in ground water	
Pollution of lake Nakuru	L. Nakuru
Forest encroachment	Menengai forest
Poorly managed quarries	Barut and Heshima
Encroachment of riparian reserves	Along River Lamuriak and Ndarugu
Air pollution by massive dust	Entire planning area
Underutilization of Mwariki sewer treatment plant	Mwariki A

Poor storm water drainage

The planning area lacks adequate storm water drainage systems especially in the CBD where most surface run-off is generated due to hard and paved surfaces which reduce surface run off infiltration. The problem of storm water is also experienced in the informal settlements where there are no defined storm drain channels. The existing storm drain channels are either silted or

blocked by solid wastes. Measures put in place to address poor drainage of storm water include;

- Construction of drainage channels
- Regular dredging of drainage channels
- Reduce use of concrete surfaces within the town
- Planting trees to reduce surface runoff
- Provision and Construction of surface drains

Pollution of water resources

This type of pollution affects the Lake Nakuru and Rivers Lamuriak and Ndarugu and is caused by human activities. Pollution of Lake Nakuru is caused by storm water. Pollution of storm water can be addressed through;

- Identification of pollutant sources
- Zoning out and reclaiming riparian reserve
- Forming a management team to check and oversee protection of the water resources

Encroachment of riparian reserves

Encroachment of the riparian reserves is evidenced within the planning area. This is evidenced along Rivers Lamuriak and Ndarugu. The measures put in place to prevent encroachment include;

- Control all developments along the riparian reserves.

Identify encroached riparian reserves and reclamation the same

Deforestation and Forest encroachment

This is common on the Menengai forest. Some of the measures put in place to address deforestation and forest encroachment include;

- Reforestation
- Restrict physical developments on forest reserves
- Reclamation of encroached forest areas
- Delineate and fence forest reserve
- Public sensitization and campaigns on conservation and management of forests

Management proposals for rivers and streams

- Provide buffer zones of between 2m -30m width measured from the highest watermark depending on the width, water volume, whether permanent or seasonal and use of that water. Where the highest watermark cannot be determined, consider the width of the river on either side to arrive at an appropriate buffer.
- Use erosion control devices, integrated pest management plans and rehabilitate disturbed areas. Incorporate best management practices to prevent pollution of rivers and streams.
- Riparian areas should be identified by the WRUAs.

- Management of the riparian areas should be considered once they are identified- specify activities that can be allowed in such areas such as bee keeping and indigenous vegetation through WRUAs.
- WRUAs should incorporate best management practices that prevent pollution of rivers, streams, utilize erosion control devices; integrated pest management plans and rehabilitate disturbed areas.
- Water resources management authority (WARMA) to profile and report the physical chemical and biological characteristics of all the rivers, wetlands and other surface water bodies within the planning area.
- Establish a comprehensive monitoring regime to the rivers and wetlands and report for compilation on the County state of environmental reports.
- WARMA to coordinate the development, adapting, and implementation of management plans that should rationalize the use of resources and mitigate on the negative impacts on rivers and lakes.
- Profile and report human activities around such rivers and wetlands, clearly indicating the impact of such activities on the system.
- Develop, adapt and implement management plan that should rationalize the use of resource and mitigate on the negative impacts.
- Water Resource Management Authority (WARMA) should be responsible for documentation and this should be reported to the national environment management authority and any other related sectoral statutory committees in their jurisdiction.
- The County environment technical committees (CETC) should issue necessary notices and orders in order to stop degradation of rivers, wetlands and other surface water bodies.
- Environmental Inspectors and Compliance Officers should also undertake necessary enforcement actions on such incidences in accordance with EMCA No.8 of 1999, Water Act 2002 and any other relevant legislation.
- Delineate spring riparian reserve as conservation zones and undertake easement process where necessary.
- Preserve the aesthetic and biological values of the rivers and streams as part of open space system. Where possible, provide public access to these open spaces and for recreational purposes.
- Preserve and maintain the rivers, natural streams and drainage ways within the developed areas by designating them as part of the open space system. To the extent possible, limit any modifications to natural gulches and drainage ways, unless they are necessary for flood protection, to preserve water quality and protect aesthetic and biological resources.
- If modifications are necessary, mitigate impacts on biological habitats by using stream-side vegetation, rip-rap boulder lining of stream banks, v-shaped bottom channels to maintain a stream flow during low rainfall periods, and other designs to enhance aeration.

- Integrate planned improvements to the drainage system into the open space system by emphasizing the use of retention basins and recreational access in the design approach.
- Develop monitoring plans for discharge of effluents into the aquatic environment to ensure that standards are met.
- Establish permanent in-stream flow standards for perennial streams. These standards should weigh the benefits of in-stream and non-stream uses of water resources, including the economic impact of restrictions of such uses.
- Encourage inter-agency coordination and public-private partnership in planning and management efforts of these resources.
- Discourage the planting of eucalyptus and invasive species in the water resource areas while giving preference to alternative species such as bamboo among others as envisioned in the "Guidelines on Eucalyptus" developed by the Kenya Forest Service (KFS).
- Carry out Environmental Impact Assessment (EIA) for activities likely to have negative impacts on the river/stream, lake, wetland and ground water. Limit uses in these areas to conservation, compatible recreation such as hiking, fishing, religious and cultural practices and controlled diversion for agricultural purpose.

Management proposals for forests and Hillsides

The following guidelines should be followed within the planning area:

- Any form of cultivation on areas of slope of between 12% - 55% must incorporate appropriate soil and water conservation measures as the Agriculture Act, Cap 318 of the laws of Kenya.
- There must be no cultivation at all on slopes beyond 55%, instead there should be afforestation and the protection of existing vegetation.
- Prohibit any form of cultivation on hillsides beyond 55%, mountains and forest areas.
- Undertake valuation of non-wood forest produce e.g. herbal products
- Promotion of appropriate species selection for site planting
- Prevent the burning of grass and any other vegetation in areas of intensive agriculture or on steep slopes
- Promote agro forestry and encourage woodlots establishment on farmlands. Rehabilitate degraded areas through re-afforestation and enclosure for natural regeneration.
- Develop and improve firebreaks and access roads.
- Undertake an assessment of the carrying capacities of various resources before any extraction to ensure sustainable use of Hilltops, Hillsides and Forests.
- Encourage indigenous forestry on Hilltops and Hillsides
- Encourage ecotourism in Hilltops, Hillsides, and mountain and forests Discourage human settlement on Hilltops, Hillsides, mountains and forests.

- Establish disaster preparedness in forest fires and landslides, mudflows, rock falls, flush floods, diseases and Pests.
- Regulate exploitation of forest products e.g. charcoal, logging, and non-wood products.
- Zone and protect water catchment areas in Hills and Forests.
- Embrace integrated ecosystem management planning.
- Protect hills and forests through identification, mapping, inventory, easement and gazettement.
- Encourage interagency coordination and public-private and community partnerships in planning and management efforts of these resources.
- Ensure at least 10% of land holdings are under trees as per the gazetted “Farm Forestry Rules” of 2009.
- Promote Participatory forest management.
- Repossess encroached forest reserves for environmental sustainability.

Quarries

The planning area has a number of quarries where building stones, ballast and marram are obtained for local and external construction activities. The quarries if not sustainably managed have far reaching implications on the environment. Most of the quarries are found within Barut area.

In order to ensure that there is sustainable quarrying, Environmental Impact Assessment (EIA) before any quarrying activity is commenced. Other proposals include;

- Adherence to the Noise and Excessive Vibrations Regulations, 2009.
- Carry out exploration for aggregates such as ballast and marram and map out the deposits. The areas should also be physically planned and appropriate land use assigned and Environmental Management Plan (EMP) for the whole area prepared.
- Establish at least 10 meters buffer zone between the quarry and the 30 meter riparian reserve of the river, wetland and water catchment areas. (i.e. 40 meters buffer zone between the quarry and the edge of the river or wetland)
- Quarrying activities within the forested land should be restricted to forestland devoid of trees with the aim of reclamation for re-vegetation in accordance with Section 42 of the Forest Act 2005.
- Siting of quarries should be in harmony with other land uses and Provide for defined buffer zone between quarries and other land uses.

Quarrying sites in Barut

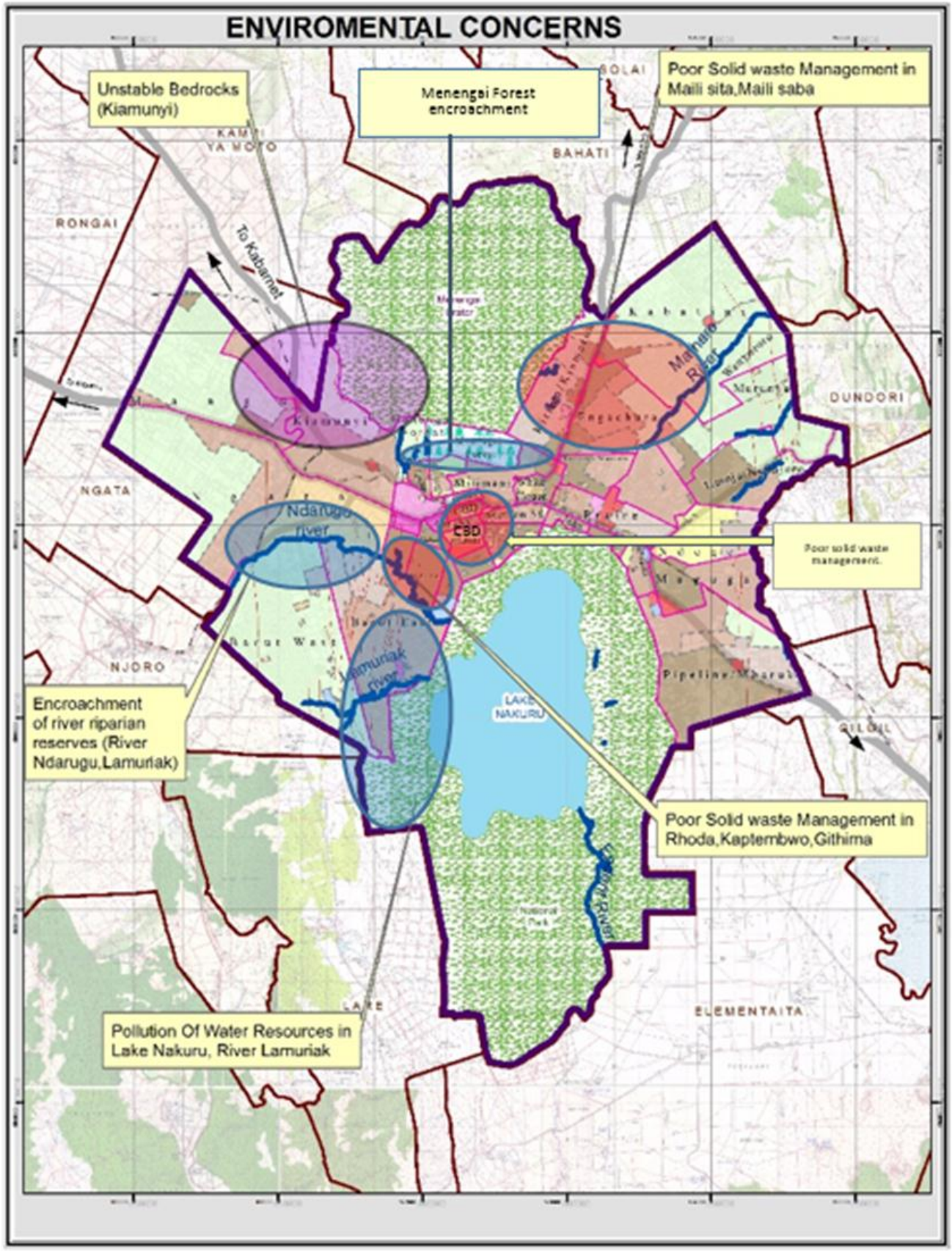


Figure 68: Environmental Concerns

Table 26: Environmental Management Strategy Matrix

ISSUE	LOCATION	OBJECTIVES	STRATEGY	ACTION PLANS	ACTORS	TIME FRAME
Poor solid waste management and disposal especially in informal settlement areas.	Rhonda, Kaptembwo, Githima, Bondeni ; Railways quarters ; the urban nodes (Mchanganyiko, Itherero, Barnabas, Maili tatu, Maili Sita, Maili Saba, Githioro)	To resolve poor solid waste disposal in Nakuru municipality	— Promote waste reuse and recycle and reduction. — Promote waste sorting — Capacity building on waste management — Improvement of stakeholder involvement in environmental management and conservation — Enforce county by-laws on environmental management.	— Identification of solid waste sources — Provision of waste collection bins in the town — Recycling of inorganic waste — Training on compositing procedure (all residential areas) — Compositing of organic waste — Establishment of sorting point in the residential estates — Establishment of compost pits — Conducting public awareness on waste disposal and management (Bondeni estate close to the Kyoto dumpsite) and waste separation (all	County Government of Nakuru NEMA Individuals Private waste collectors Corporations	Short term (5 years)

				residential areas) — Increase the number of waste collection trucks — Provision of proper protective equipment for waste collectors — Waste separation		
Poor storm water drainage	Built up areas of the CBD; Kaptembwo, Rhoda, Mwariki A, Langalanga, Shabab	To provide for efficient drainage system	— Disaster preparedness during flooding — Urban flooding control — Increase of vegetation cover	— Construction of drainage channels — Regular dredging of drainage channels — Reduce use of concrete surfaces within the town — Planting trees to reduce surface runoff — Provision and Construction of surface drains	County government of Nakuru Residents NGOs CBOs	Short term (5 years)
Pollution of water resources	Lake Nakuru and rivers Lamuriak and Ndarugu	To protect the water resources from pollutants	— Restrict human activities from the vicinity of the water resources — Enforce polluter	— Identification of pollutant sources — Zone out and reclaim riparian reserve	County Government of Nakuru WARMA	Short term (5 years)

			pay principle	— Resettle those encroaching the riparian reserves — Form a committee to check and oversee protection of the water resources	NEMA	
Inadequate sewerage system	Mosop, Lanet, Kiamaina, Njoro wards	— To provide for efficient and functional sewerage system	— Assessment for need of sewerage treatment plant	— Upgrade Mwariki sewer treatment plant. — Provide sewerage network throughout the town	County Government of Nakuru NARUWASCO NAWASCO	Long term (15 years)
Deforestation and Forest encroachment (Human wildlife conflicts)	Menengai crater forest	To protect forests from encroachment and control deforestation To increase forest cover to 10% as per the forest policy	— Provision of sustainable models of forest protection and conservation	— Reforestation — Restrict physical developments on forest reserves — Reclamation of encroached forest areas — Delineate and fence forest reserve — Public sensitization and campaigns on conservation and management of forests	County Government of Nakuru Community based organizations Ministry of natural resources KFS Schools	Long term (15 years)

Soil erosion	L. Nakuru national park area, Bahati forest	To reduce soil erosion.	— Increasing vegetation cover in the planning area	— Planting trees — Building gabions on steep slopes — Controlled farming	County government of Nakuru Community based organization Farmers Crop agriculture extension officers	Medium term (10 years)
Encroachment of riparian reserves	Rivers Ndarugu, Lamuriak, Enderit, and Makalia	To conserve and protect the riparian reserves	— Control all developments along the riparian reserves.	— Identify encroached riparian reserves and reclamation the same — Delineate the riparian reserve	WARMA NEMA	Long term (15 years)
Unstable bed rocks to sustain deep pit latrines hence collapses of the same	Kiamunyi, Rhonda, Baruti, Gichoho, Naishi, Mbaruk	To provide more efficient sanitation methods in the planning area	— Provide alternative sanitation in areas with collapsible soils.	— The county government to ensure that developers provide septic tanks on sites	County Government of Nakuru NEMA Individual Ministry of health	Short term (5 years)

9.6 Disaster Management Plan

The purpose of the DMP is to identify disaster prone areas, protect inhabitants from disasters, and explore available options for early warning systems. This includes institutionalizing monitoring systems, and enhancing strong coordination and collaboration mechanisms among others. There is likelihood of occurrence of disasters in Nakuru that include floods, rock falling and fire hazards.

Disasters can be categorized as natural, pandemic. Based on the situational analysis of Nakuru town, it emerged that certain areas were either prone to certain disasters while others were potentially prone to such. Disaster management entails a number of components including;

- Mitigation
- Preparedness
- Close out
- Response and
- Recovery

Disaster management concerns in Nakuru town include;

- Unstable geological zones characterize the western zone of the town.
- Natural hazards
- Ecologically sensitive areas

Flooding

Flooding is common within the CBD, Kaptembwo and Rhoda and usually results in loss of property. The following measures are proposed to mitigate against the effects of flooding.

- Discourage human settlements in flood prone areas
- Dredging of drainage channels in CBD
- Identify and enhance natural drainage channels
- Construct drainage channels in the neighborhoods.
- Carry out afforestation, tree-planting, water and soil conservation in unbuilt spaces.
- Construct flood control structures such as dykes and gabions.
- Encourage the planting of water-logged tolerant crops (e.g. rice, arrow roots) in flood plains
- Develop a flood early warning system

Landslides

The planning area is at the floor of the Rift valley. This area is associated with geological instabilities which increases the possibility of faulting incidences. Some areas west of the Central business district have experienced land subsidence in the past. There are also clearly marked and mapped fault lines that run across the planning area. These areas include Ngata, Kiamunyi, Kyoto and Rift Valley Institute of Science and Technology. The following measures are proposed to avert disasters caused by faulting;

- Mapping of all fault line areas
- Discourage human settlement in geological disaster prone areas

- Research on frequency of occurrence of subsidence
- Avoid/restrict construction in landslide prone areas

Fires

Fire outbreaks are common in the Menengai crater and also within the built up areas of the planning area. In order to avert disasters caused by fire, the following measures have been proposed;

- Create a buffer between Menengai crater and settlement areas bordering the crater
- Build additional fire stations
- Provide adequate access roads and hydrants for firefighting in urban settlement
- Build and strengthen the capacity of fire fighters and conduct regular drills
- The County Government to ensure all public buildings are fitted with fire extinguishers
- County Government to ensure that all buildings have sufficient fire exits
- County Government to enforce building line provisions to mitigate effects of fire in case of breakout.
- Install commercial and institutional buildings with properly functioning automatic smoke detectors

Table 27: Disaster Management Strategy Matrix

ISSUE	LOCATION	OBJECTIVES	STRATEGY	ACTION PLANS	ACTORS	TIME FRAME
Landslides	Ngata, Kiamunyi, Kyoto, Rift Valley Institute of Science and Technology	To prevent loss of life and property	— Discourage human settlement in geological disaster prone areas	— Map fault lines — Research on frequency of occurrence of subsidence — Avoid/restrict construction in landslide prone areas	Ministry of mining (geology dept.) County government of Nakuru Individuals NEMA	Short term (5 years)
Flooding	Ronda Kaptembwo CBD	To prevent loss of life and property	— Provide for an efficient drainage system — Enhance disaster preparedness	— Discourage human settlements in flood prone areas — Dredging of drainage channels in CBD — Identify and enhance natural drainage channels — Construct drainage channels in the neighbourhoods. — Carry out afforestation, tree-planting, water and soil conservation in unbuilt spaces. — Construct flood control structures such as dykes and gabions. — Encourage the planting of water-logged tolerant crops (e.g. rice, arrow roots) in flood plains — Develop a flood early warning system	County government of Nakuru Meteorology department	Long term (15 years)
Inadequate fire response facilities and equipment	Entire town	To ensure fire safety in the town	Enhance fire fighting capacity	— Build additional fire stations — Provide adequate access roads and hydrants for fire fighting in urban settlement	County government of Nakuru	Short term (5 years)

				— Build and strengthen the capacity of fire fighters and conduct regular drills — County government to ensure all public buildings are fitted with fire extinguishers — County government to ensure that all buildings have sufficient fire exits — County government to enforce building line provisions to mitigate effects of fire in case of breakout. — Install commercial and institutional buildings with properly functioning automatic smoke detectors	Individuals Ministry of health Red cross society of Kenya	

9.7 Cultural and Heritage Conservation Plan

The plan seeks to conserve and promote local culture. Attention has been drawn to conservation of historical and cultural sites. The plan also provides for re-planning, re-development and conservation guidelines that promote the local cultures.

Cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. It includes tangible culture (such as buildings, monuments, landscapes, books, works of art, and artefacts), intangible culture (such as folklore, traditions, language, and knowledge), and natural heritage (including culturally significant landscapes, and biodiversity)

Culture and heritage allows people to identify with others of similar mind-sets and backgrounds. It can provide an automatic sense of unity and belonging within a group and allows us to better understand previous generations and the history of where we come from.

In cities for instance, it can be easy to feel lost and alone among many other cultures and backgrounds. Nakuru, for example, is a town with many people from all over the country. There are large communities based around diverse cultural heritages.

Another benefit that comes from preserving cultural heritage as a whole is the communal support. Those that identify strongly with a certain heritage are often more likely to help out others in that same community.

Nakuru is the fourth largest town in Kenya. It is cosmopolitan due to its long history of immigration. Its cosmopolitan nature needs to be enhanced to enable achievement of the town's full potential; this can be achieved by creating awareness of the existing heritage sites and encouraging people to visit such sites.

Table 28: Cultural Heritage Strategy Matrix

Existing sites	Objectives	Strategies	Action Plans/Areas	Actors	Period
• Hyraxx Hill Museum • Lord Egerton Castle • Menengai crater • Lake Nakuru National Park. • Lake Nakuru • Sirikwa caves.	• Create public awareness about the existence of the heritage sites. • Promote local and international tourism in Nakuru. • Preserve the heritage sites.	• Protection and preservation of the cultural heritage • Encourage PPP branding of the local culture • Promote cultural tourism. • Promote eco-tourism. • Encourage locals to visit the heritage sites.	• Educate the locals on need to conserve the cultural heritage areas. • Protection of existing cultural heritage areas. • Conducting of annual cultural shows to sensitize the public on need for heritage sites. • Establishment of cultural exhibitions. • Establishment of a cultural center.	County government NGOs	Continuous

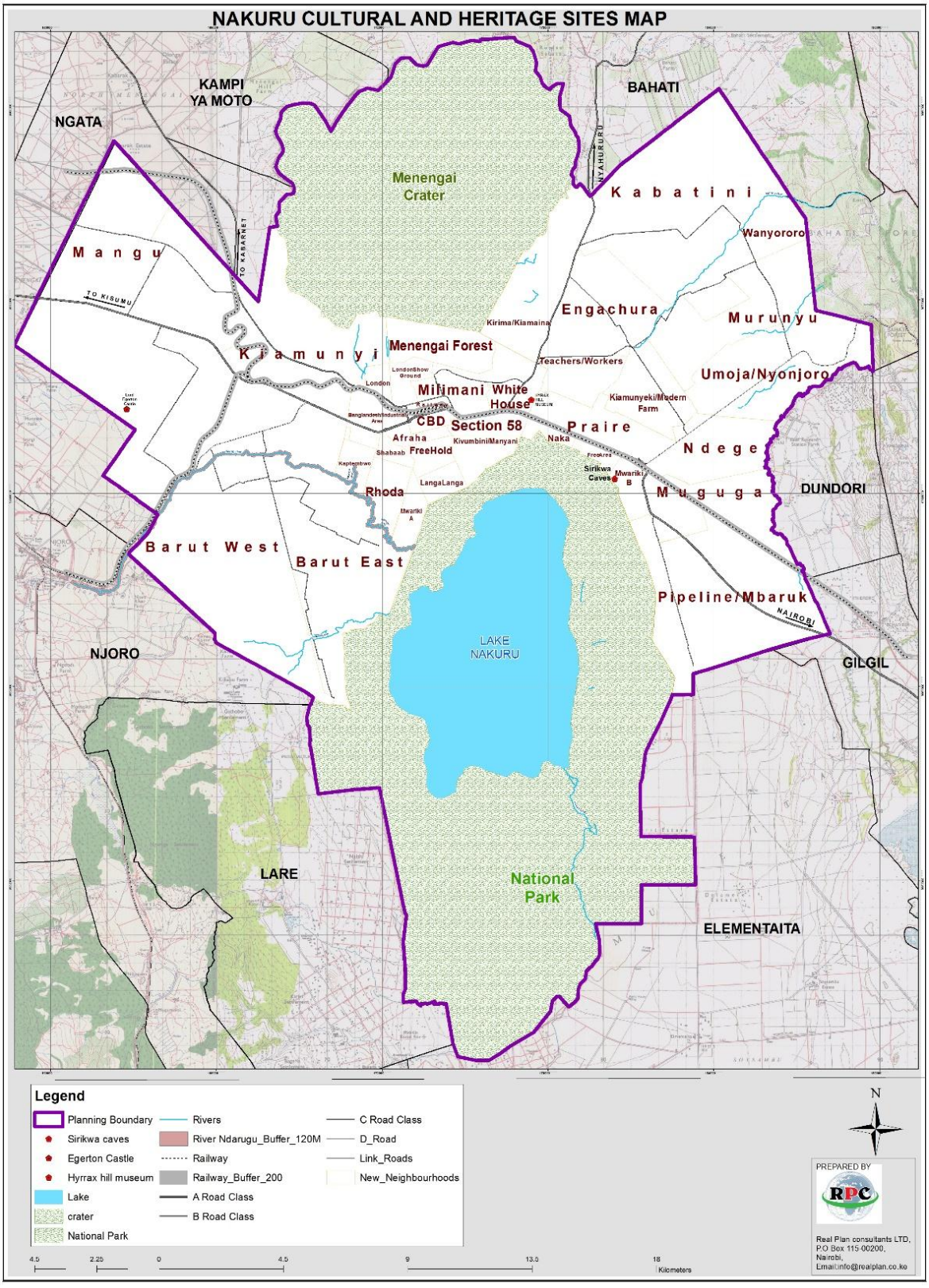


Figure 69: Culture and Heritage Strategy

Table 29: Cultural Heritage Strategy Matrix

Existing sites	Objectives	Strategies	Action Plans/Areas	Actors	Period
• Hyraxx Hill Museum • Lord Egerton Castle • Menengai crater • Lake Nakuru National Park. • Lake Nakuru • Sirikwa caves.	• Create public awareness about the existence of the heritage sites. • Promote local and international tourism in Nakuru. • Preserve the heritage sites.	• Protection and preservation of the cultural heritage • Encourage PPP branding of the local culture • Promote cultural tourism. • Promote eco-tourism. • Encourage locals to visit the heritage sites.	• Educate the locals on need to conserve the cultural heritage areas. • Protection of existing cultural heritage areas. • Conducting of annual cultural shows to sensitize the public on need for heritage sites. • Establishment of cultural exhibitions. • Establishment of a cultural center.	County government NGOs	Continuous

9.8 Conclusion

The above sector plans seek to ensure adequate provision of facilities and services to meet the current and future demands of Nakuru's population. The proposals are tailored to mitigate challenges while maximizing on the presented opportunities. They are hence highly recommended.

PART III: CIP AND IMPLEMENTATION

CHAPTER TEN

CAPITAL INVESTMENT PLANS AND IMPLEMENTATION FRAMEWORK

The Capital Investment Plan (CIP) provides a detailed understanding of anticipated investments into tangible capital assets. These assets include basic facilities, services and installations needed for the functioning of the community.

This CIP particularly outlines the projects, both ongoing and proposed, that are envisioned to support development of Nakuru town, within the context of the proposed Integrated Strategic Urban Development Plan (2014-2035). The projects are detailed out per sector. Also included are the areas covered, budgetary allocations, land requirements, the implementing and financing agencies and implementation time lines.

The total number of projects proposed is 84, out of which 22 are already ongoing. However, based on the projected housing demand, several unquantified projects are expected in the housing sector. The highest proportion (39%) of the 84 projects fall under the transportation sector, followed by the education sector at 23%. The remaining 38% of the projects are taken up by agriculture, water and sanitation, energy, health, and environment sectors among others. The table below summarizes the sectoral distribution of the projects.

Table 30: Sectoral distribution of project proposals

Sector	No. of Projects	Est. Cost (KShs Million)	% of total cost
Housing	1 ongoing plus several others to be determined by housing suppliers	194,600	81.05
Water and sanitation	6	35,223	14.67
Transportation	32	6,141	2.56
Capacity building	4	1,340	0.56
Energy	4	1,120	0.47
Education	18	876	0.37
ICT	1	200	0.08
Community facilities	5	190	0.08
Land acquisition	-	176	0.07
Health	3	130	0.05
Environment	2	70	0.03
Agriculture	8	12	0.01
Total	**84**	**240,078**	**100.00**

Notably, the water and sanitation sector takes the highest portion of the budget. This is because the projects are majorly extensive network infrastructure and capital intensive. The next highest proportion of the budget is taken up by the transportation sector. The housing sector takes the nothing from the budget since the only one project therein has already been funded and is already under implementation.

In respect to the spatial distribution of these projects, Nakuru East Sub-county enjoys the highest percentage, followed by Rongai, Bahati and lastly Gilgil. The sub-counties take 8, 6, 5 and 1 projects respectively. Among the remaining projects, 62 traverse across different sub-counties while 2 have no specific proposed locations. Table 31 below is a summary of the spatial distribution of the projects.

Table 31: Spatial Distribution of Project Proposals

Sub-county	No. of Projects	Est. Cost (KShs Million)	% of total cost
Entire planning area	52 (plus the unquantified housing projects)	216,520	90.19
Trans-boundary projects	10	6,021	2.51
Nakuru East	8	5,841	2.43
Rongai	6	4,563	1.90
Bahati	5	4,521	1.88
Location not specified	2	1,412	0.59
Gilgil	1	1,200	0.50
Total	**84**	**240,078**	**100.00**

The projects also vary in terms of the implementation period. A number of them are quick wins, while others are to be implemented within the short, medium and long term. There are also those that are to be implemented continuously. The table below summarizes the projects based on the proposed implementation time frames.

Table 32: Project Proposals Based on Implementation Time Frames.

Implementation time frame	No. of Projects	Est. Cost (KShs Million)	% of total cost
Continuous	17 (plus the unquantified housing projects	207,633	86.486
Short to medium term	20	24,993	10.410
Medium term	10	2,891	1.204
Short term	21	2,746	1.144
Medium term to long term	5	1,308	0.545
Long term	6	500	0.208
Quick wins	5	7.25	0.003
Total	**84**	**240,078**	**100.000**

The total budget for the implementation of these projects is estimated at KShs. 240.1 billion. The housing sector takes the largest portion (KShs. 194.6 billion) of the budget, followed by the water and sanitation sector which takes up KSh. 35.2 billion. The agriculture sector on the other hand takes only KShs. 12 million because seven out of the eight projects therein are already funded and ongoing. The transport sector takes up the third largest proportion of this budget, at KShs. 6.1 billion.

10.1 Project Proposals

The projects in this CIP are constituted by the following:

i. **Economic Infrastructure:** These projects include the ones in the transportation infrastructure such as roads, water, energy, markets, and other infrastructures proposed during the participatory workshops.

ii. **Investment in the Productive Sector:** These are projects in tourism, agriculture, fisheries and forestry as they are important in the future economic and commercial growth of the towns. Others include direct support to enterprise development; technology and innovation advancement.

iii. **Environmental infrastructure**: These include investments in solid/chemical waste management, sewerage and water systems, and investment for environmental sustainability.

iv. **Critical Social Investment such as in health, housing, and recreation.** Capital investment projects in education, and health are also part of this CIP.

v. **Human Capital**: In order to ensure that the above developments are realized, there must be adequate capacity to plan, implement and monitor the interventions over time. In this regard, the capacity of the counties and the towns to manage the portfolio has been assessed and appropriate recommendations made.

vi. **Resource Envelops**: The plan in addition has determined the inputs needed to implement the various projects. All the stakeholders operating from the designated planning area have been included in the implementation matrix. A stakeholder analysis was carried out to determine their effectiveness in the cause of implementing the plans.

The details of the projects are further broken down per sector.

10.1.1 Transportation Sector

The projects in this sector comprise road construction, road expansion and provision of various transport infrastructures. The total number is 32. Those that are to be implemented in the short, medium and long run are 17, 8 and 2 respectively. Quick wins are on the other hand 5 in total.

Up to 11 transportation projects cross-cut the sub-counties while the rest are within specific sub-counties. Nakuru East sub-county has the highest number of projects, followed by Rongai, then Bahati and Gilgil in that order.

The main implementers and financiers of transportation projects include KURA, KeNHA and the county government. Development partners assist in financing large projects such as the improvement of the Northern Corridor Highway and the Standard Gauge Railway. The budget for implementing these projects is estimated at KShs. 6.1 billion.

10.1.2 Water and Sanitation Sector

The number of water and sanitation projects is 6. They involve construction of water and waste management networks. They all traverse different sub-counties within the planning area and are newly proposed. Two of the projects are to be implemented between the short and the medium terms, three are to be done in the medium term while the last one is to fall in the period between the medium and the long term. The county government and the private sector take the biggest role in implementing and financing these projects. The budget for implementing water and sanitation projects is estimated at KShs. 35.2 billion.

10.1.3 Energy Sector

The projects under this sector sum up to four, three of which are ongoing. Implementation of one of these projects falls within the short term while the other three are to be implemented in the long run. The key players in the implementation of the energy sector projects in

Nakuru are KISIP, Rural Electrification Authority and the County government. The budget is approximately KShs. 1.1 billion.

10.1.4 Environment Sector

The environment sector has two proposed project which are to be implemented and financed by the County government within the short run. The budget estimate for this sector is KShs. 70 million.

10.1.5 Health Sector

A total of 3 projects are proposed in the health sector. They entail construction of an eye theatre, construction of cemeteries and providing the existing health facilities with ambulances. One of these is expected to end in the short term while the other is to be implemented in the period between medium and long terms. The key players in the implementation and financing of these projects are the National and County governments together with the private sector. This sector is expected to take up KShs. 130 million.

10.1.6 Education Sector

The education sector projects basically entail constructing and equipping schools. The proposed primary schools throughout the planning area are 14 while all ECDEs and secondary schools are proposed for improvement. One centre of excellence is also recommended. These projects are to be implemented through Public Private Partnerships. The education sector projects are expected to consume up to KShs. 876 million.

10.1.7 Housing Sector

There is one housing project under implementation currently by Kenya Informal Sector Improvement Program (KISIP). The project entails slum upgrading in Rhonda. Since it has already been funded, the project has not been budgeted for in this CIP.

However, the housing demand by 2034 is projected to be 288,213 houses. This is based on the average urban household size of 4 and a total population projected at 1,152,852 people. Given that Kenya's population distribution by income groups is 5%, 25% and 70% for high, middle and low income groups respectively, it is expected that 14,410 households will be for the high income group, 72,053 for the middle income group and 201,750 for the low income group.

On the other hand, the current number of high income households are 6,840, the medium income households are 34,200 and low income households are 95,761. This implies that the additional number of households for the income groups will be 7,570; 37,853 and 105,989 respectively. The cost details for houses fit for each group are as shown below:

Income group	Total floor area (m^2)	Cost per m^2 (KShs.)
High income	49	44,000
Middle income	40	46,000
Low income	28.5	36,000

From the foregoing, it is estimated that provision of high income residential houses will cost Ksh. 16.3 billion while the middle and low income houses will cost Ksh. 69.6 billion and Ksh.

108.7 billion respectively. Thus, approximately Ksh 194.6 billion will be required in order to provide adequate housing. The bulk of the housing projects are expected to be implemented by private investors.

10.1.8 Agriculture Sector

The agricultural projects in Nakuru sum up to eight, seven out of which are already ongoing. They are being implemented by the Ministry of Agriculture and Livestock Development. Additionally, they are projects that are to be implemented continuously, except one, which is a short term project. Only one of these projects has been costed at KShs. 12 million since the remaining seven have already been funded.

10.1.9 ICT Sector

It is proposed that digital villages and ICT centres be developed in different parts of the planning area. This is in the bid to promote communication and business in the area. The project is envisioned to be completed by the end of the long term period and is estimated to cost KShs. 200 million. The main implementer and financier of the project is the county government.

10.1.10 Other Community Facilities

The other community facilities include social halls, sports facilities, fire stations, cultural centres and libraries, among others. Implementation and financing community facility projects is squarely the responsibility of the county government. Private partners can however be involved too. A total of 5 projects are proposed under this category. These projects are expected to cost KShs. 190 million.

10.1.11 Capacity Building Projects

A total of 4 capacity building projects have been proposed in Nakuru. Two of these are already under implementation. Three of them are to be implemented continuously while the remaining one is a short term project. The projects expected to cost KShs. 1.3 billion.

10.1.12 Projects involving the Youth, Women and People with Disabilities (PWD)

These projects constitute those that are intended to benefit the above mentioned groups. They also include projects in whose implementation they will be involved. Such projects in Nakuru include those that require supply of various inputs/materials, whereby 30% of tenders must go to the youth, women and PWD. Examples of these projects are those that involve all infrastructure and building construction works and provision of supplies among others. The youth are also supposed to be directly involved in all construction projects, from which they should earn some income. Furthermore, education projects are meant to directly benefit the youth (both boys and girls) and particularly special schools are meant for the PWD.

All community facility development projects are meant to benefit the youth, women and PWD both socially and economically. Agricultural projects are also potentially beneficial to the vulnerable groups since they can be involved directly as a means of empowering them economically. A total of 72, 56 and 54 projects proposed in Nakuru are thus envisaged to involve and/or benefit the youth, women and PWD respectively.

10.1.13 Catalytic Projects

Catalytic project recommendations for the planning area are intended to promote the implementation of the plan goals and objectives. They will help increase spatial development, show progress and stability in the planning area, represent visible investment and spur additional investment. Such projects include the following:

1. Strengthening the Nakuru County Planning Department and training of all relevant personnel on crucial components of the ISUDP and general planning processes and techniques.
2. The Itare Dam and distribution
3. Airport construction
4. Geothermal power development
5. Slum clearance in Rhonda
6. Road network extension projects
7. Construction of a tannery
8. Extension of sewer system to un-served areas
9. Construction of youth empowerment centre
10. Construction of additional schools
11. Establishment of digital villages and ICT centre

Strengthening the Nakuru County Planning Department and training of personnel is the first step to enhancing proper and timely implementation of Nakuru ISUDP. Among the personnel to be included in the training process are the county planners, architects, engineers, surveyors, land officers, members of the county assembly, the Chief Executive Committee member and Chief Officer in charge of Physical Planning and Housing. The county treasury should also be part of this induction so that they understand the need to properly fund planning projects and programs. It is expected that these officials will have direct roles in spearheading the implementation of the Nakuru ISUDP and subsequent plans. This notwithstanding, it is also important to involve various stakeholders who are expected to play different roles in project implementation and financing.

Airport construction is the second project expected to have ripple effects on development of the planning area. It will not only make air transport more efficient but also attract other investments such as those in the hotel and hospitality industry. It may also boost the tourism industry since direct international flights to Nakuru will be possible. These will in turn increase the revenue base for the county among other things. It is estimated that this project will cost KShs. 500 million.

Geothermal power development is another catalytic project that will boost energy supply both within and outside the planning area. With adequate energy, production activities will be much easier hence increased industrial developments and related investments. The cost of this project is estimated at KShs. 10 billion.

Slum clearance in Rhonda will not only help to improve the housing stock of the entire county but also bring a significant change in the built-up fabric. It will directly make an impact

in the people's lives by improving on shelter, which is one of the basic human needs. Slum related problems will also be sought out in the process. Subsequently, the impact of the Nakuru ISUDP will be visible.

The road network expansion project will help to promote efficiency in movement/circulation. Easing movement within Nakuru town will be one of the greatest score points for the ISUDP since this will in turn improve business, attract investment and stimulate further developments.

Construction of a tannery is expected to trigger employment creation, income generation and improve revenue base of the county. These impacts directly influence the lives of a majority of the Nakuru dwellers and so enrich the worth of the ISUDP. The project is expected to cost approximately KShs. 12 million.

Extension of sewerage networks to un-served areas will definitely improve sanitation in the planning area, promote high environmental quality and consequently, get people to enjoy healthy living. This is an aspect that is of great significance to everyone and so it is expected to promote the ISUDP extensively. This will cost about KShs. 1 billion.

The other catalytic project is the construction of youth empowerment centre. It is envisaged to equip the youth with skills necessary for productive ventures. As energetic as the youth are, their activities are expected to create employment for themselves and spur further economic and physical developments in the planning area.

Construction of additional schools will improve access to basic education by the residents. With proper education, people are empowered to engage in income generating activities. The new schools will also improve the fabric of the built environment since basic infrastructure such as roads, electricity, water and sewerage facilities must be provided in the areas where new schools will be built.

Furthermore, the establishment of digital villages and ICT centre will enhance the ability of the people to acquire information. This is a yardstick to improvement of technological and technical innovation, business, investment and service provision. Indeed this project is envisaged to increase the capacity of the people of Nakuru to improve so many of their activities since they will have access to information. As such, the ISUDP will be seen to be changing lives in inevitably noticeable ways.

Table 33 below gives a summary of all the project proposals discussed above.

Table 33: Summary of Projects

SECTOR	SUB-COUNTY	NO. OF PROJECTS												
		Quick Wins		Short Term		Short to Medium Term		Medium Term		Medium to Long Term		Long Term		Total
		Proposed/Ongoing												
		P	O	P	O	P	O	P	O	P	O	P	O	
TRANSPORTATION														
Roads	Nakuru East	3	Nil	4	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	8
	Rongai	Nil	Nil	3	Nil	3	Nil	Nil	Nil	Nil	Nil	Nil	Nil	6
	Bahati	Nil	Nil	1	Nil	Nil	Nil	4	Nil	Nil	Nil	Nil	Nil	5
	Gilgil	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	1

	Trans-boundary projects	1	Nil	Nil	1	Nil	1	1	Nil	Nil	Nil	Nil	Nil	4
Street furniture	Trans-boundary projects	1	Nil	1	4	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	6
Air transport	Location not specified	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	1
Railway transport	Entire planning area	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	1
WATER & SANITATION														
	Entire planning area	Nil	Nil	Nil	Nil	1	1	2	1	1	Nil	Nil	Nil	6
ENERGY	Entire planning area	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	1	2	4
ENVIRONMENT	Entire planning area	Nil	Nil	Nil	1	1 continuous project (proposed)								2
HEALTH	Entire planning area	Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	2	Nil	Nil	Nil	3
HOUSING	Nakuru East	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1
EDUCATION														
ECDEs	Entire planning area	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	1
Primary		Nil	Nil	Nil	Nil	14	Nil	Nil	Nil	Nil	Nil	Nil	Nil	14
Secondary		Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1
School of excellence		Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1
Land purchase		Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1
AGRICULTURAL	Entire planning area	7 projects are ongoing and to be implemented continuously, and 1 project is proposed for implementation in the short term												8
ICT	Entire planning area	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1		1
COMMUNITY FACILITIES	Trans-boundary projects	Nil	Nil	1	Nil	Nil	Nil	2	Nil	1	Nil	Nil	Nil	4
	Location not specified	Nil	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1
CAPACITY BUILDING	Entire planning area	Nil	Nil	Nil	1	3 continuous projects, 1 ongoing and 2 proposed								4
TOTAL		Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	84

10.2 Land Requirements

Land is an important requirement for the implementation of the projects, especially those involving construction works. New projects like construction of schools and health facilities, relocation of various facilities, road construction; and expansion require land acquisition. For road expansion projects, there is need to budget for demolition and compensation in cases where the road reserves have encroached into. About KShs. 176 million has been set aside for land acquisition.

10.3 Implementation Framework

The implementers of the projects basically include the National and County governments and the private sector, with the help of donor agencies. The national government is represented by various institutions including but not limited to ministries, departments, authorities and parastatals. The private sector is on the other hand made up of institutions and individuals. NGOs, CBOs and Faith Based Organizations are also potential implementers and financiers of the proposed projects in this plan.

The county government is expected to be the most involved in project implementation since it needs to play one role or another in all the projects. The National government may only need to come in for the major projects, especially those entailing establishment of trunk infrastructure. Such projects take about 70% of the total estimated cost estimate.

The private sector is on the other hand to be involved in implementing projects in the housing, health, business, and industry and education sectors. These take about 30% of the project proposals in Nakuru. They are also supposed to get involved in all projects during public participation forums. The table below elaborates further on the implementation framework designed for the Nakuru ISUDP.

Table 34: Implementation Responsibility

Sector	Nature of Projects	No. of Projects	Implementing Institution(s)	Roles of Implementing institution (s)
Capacity Building	Capacity Building	4	County Government	- Mobilization of financial & human resources - General Supervision
Transportation	Road Construction projects Road Expansion and Tarmacking projects	3 19	KeNHA/ KURA/County government	- Financing the projects - Identification and acquisition/ purchase of land - Contracting experts - Maintenance of the roads
			Planners, Architects, Engineers EIA experts, Contractors	- Planning and design of roads and surrounding land uses - Project Environmental Impact Assessments
			Contractors/ surveyors	- Actual construction works

			Residents/NGOs/CBOs (Private Sector)	- Contribution of resources e.g. money, labour, ideas etc.
	Air Transport projects	1	Kenya Airport Authority/ County government	- Financing the project - Identification and acquisition/ purchase of land - Contracting experts - Maintenance of the airport. - Maintenance of railway line
	Rail Transport projects	1	Kenya Railway Corporation/ Government of China	
	Enforcement of Regulation	1	Traffic Police Dept. County government	- Formulating adequate and effective traffic rules - Enforcing the rules
			Road users	- Observation of the traffic regulations
Housing	Slums Upgrading projects	1	KISIP/ County government	- Financing the project - Contracting experts - Maintenance of the houses
			Planners, Architects, EIA experts & Contractors	- Planning, Design, EIA & Construction works
			Residents/NGOs/CBOs (Private Sector)	- Contribution of resources e.g. money, labour, ideas etc.
Water & Sanitation	Water and Sewerage Network projects	5	Nakuru Water and Sewerage Company/ Rift Valley Water Services Board/ County Gov't	- Financing the project - Identifying and acquisition of land - Contracting experts
			County Gov't	-
	Solid Waste Management	2	Kenya Water Trust Fund/ WRUAs	- Help in financing water projects
			Planners and Engineers	- Planning and design works
			Contractors	- Construction
			Residents/NGOs/CBOs (Private Sector)	- Contribution of resources e.g. money, labour ideas etc.
Commerce, Industry & Tourism	Industrial Developments	1	Ministry of Industrialization & Enterprise Dept./ County government	- Identification of ideal spaces/land and acquisition of the same - Financing construction of some of the requisite infrastructure and/or offering enabling environment to private investors
Agriculture	Agricultural Promotion projects	7	Ministry of Agriculture, Livestock and Fisheries	- Financing the projects
			County Gov't	- Contributing finances - Organizing and monitoring the process
			Resident Farmers Associations and individual Farmers (Private Sector)	- Farming & irrigation works
Energy	Electrification projects	2	Kenya Rural Electrification Authority	- Financing the project
			County government	- Help to identify land (way leave) and acquire the same - Help KREA in organizing and

				monitoring the process
			Kenya Power	- Establishment of electricity networks and supply of electricity
			Residents and business people (Private Sector)	- Electrical installation works in the homesteads & business premises
	Geothermal Power & non-renewable Energy projects	2	Ministry of Energy/ County Government	- Financing the project
Environment	Forestation/ Reforestation projects	1	Ministry of Environment and Natural Resources/ County government	- Financing the projects
			Residents	- Participation in tree planting and maintenance
	Beautification projects	1	County Gov't	- Financing the project - Supervision of works
			Landscape Architects/ contractors	- Design and landscaping works
			Private institutions	- Sponsorship of landscaping sections of Nakuru town
Health	Construction/ equipping of health facilities	3	Ministry of Health/ County Government	- Financing the project - Contracting experts - Supervising construction work
			Planners/ Architects Contractors	- Planning, Design and Construction works
			Residents (Private Sector)	- Contribution of resources e.g. money, labour ideas etc.
Education	Educational facility Upgrading projects	5	Ministry of Education, Science Technology/ County Gov't Constituency Development Fund	- Funding the projects - Contracting experts and supervising works - Helping in funding the projects - Upgrading and running some of the schools
ICT & other Community facilities	Construction of Facilities	5	Private institutions/religious institutions/ private individuals	- Constructing and running some of the community facilities

10.4 Financial Strategy

This section provides the details of the estimated project costs and subsequently proposes a strategy on how to raise the required funds from various sources.

10.4.1 Budget Allocations

The budgetary allocations vary from one sector to the other because of the difference in the nature and number of projects. The housing sector for instance takes the biggest part of the budget while the smallest portion is allocated to the agriculture sector.

The table below is a summary budgetary allocations for the projects in each sector.

Table 35: Project Budget Allocations

Sector	Approximate Cost (KShs Million)
Housing	194,600
Water and sanitation	35,223
Transportation	6,141
Capacity building	1,340
Energy	1,120
Education	876
ICT	200
Community facilities	190
Land acquisition	176
Health	130
Environment	70
Agriculture	12
Total	**240,078**

10.4.2 Institutional Shares of the Financial Responsibility

The proposed projects will be financed by various individual institutions. Some will however be jointly funded by two or more institutions. The highest number of projects (25) to be financed by individual institutions is taken up by the County Government. They cost approximately KShs. 2.6 billion covering about 1.1% of the total budget. The highest percentage of the budget (81%) is however taken by the projects that are supposed to be financed by the private sector.

The details of institutional budget share proposal are summarized in the table below:

Table 36: Institutional Shares of the Financial Responsibility

Institution	No. of projects	Approximate Cost (Million KShs)	% of Total Budget
Private Sector	Housing projects	194600	81.057
NAWASCO/Rift Valley Water Services Board	2	31,000	12.91
Ministry of Energy	3	7,100	2.96
KURA	21	3,255	1.36
County Government	25	2,562	1.07
Ministry of Education, County Government & CDF	5	1,010	0.42
Kenya Airports Authority	1	500	0.21
KeNHA	1	30	0.01
Kenya Rural Electrification Authority	1	20	0.01
KURA & County Government	3	1	0.00
Total	**62**	**240,078**	**100.00**

It is worth noting that while the total number of projects is 84, only 62 have been budgeted for in this CIP since the remaining 22 have already been funded.

10.4.3 Sources of Funding

a. National Government Sources

The national government has a variety of potential sources of finances for the proposed projects. These include revenue from taxes, returns from investments, borrowing and donations from international financial institutions.

b. County Government Sources

The county government also has several windows of raising funds for development and recurrent expenditures. These include the Equitable Share of national revenue, internally generated funds, funding from Public Private Partnerships, borrowing through municipal bonds, private investment, support from development partners and other non-governmental organizations.

The investment plan assumes that adequate resources will be available or can be mobilized to undertake program activities up to 2034. . The county administration should study expenditure patterns; and make forecasts of revenue that is likely to be realized within the plan period. The various sources of funds for implementing projects and programs include:-

(i) County Generated Revenues

The main sources of revenue for the County government are:

- Single Business Permit;
- Entertainment taxes
- Parking Fees;
- Market Fees;
- Land Rents; (property rates)
- Bill Boards; and
- Other miscellaneous licenses.

Counties are expected to allocate at least 30% of their budget to development and the remainder to recurrent expenses. Budget appropriations should be maintained at levels that will promote investment, create employment and improve incomes. It will therefore be necessary to undertake reforms in this field in order to determine areas of unnecessary recurrent expenses that should be transferred to development.

(ii) Public Private Partnerships (PPP)

PPP is a concept that will see counties privatize assets that can be managed or developed better by the private sector. The law governing Public Private Partnerships was enacted in January 2013. PPP underscores institutional relationships between the state and the private sector where public and private actors jointly participate in defining the objectives, the methods and the implementation of an agreement of cooperation. PPPs present a middle case between public procurement and privatization. The private sector would be encouraged to propose solutions and offer technical expertise. It could also provide viable financial arrangements for the projects and undertake the associated operational risks. The PPP arrangements, therefore, can offer opportunities to attract enhanced private sector participation in financing, building and operating infrastructure services and facilities to close funding gaps.

(iii) Municipal Bonds

Municipal bonds are securities that are issued for the purpose of financing the infrastructure needs of the issuing municipality, in this case a county. The proceeds from the bonds can be used to finance the implementation of streets and highways, bridges, schools, hospitals, public housing, sewer, water systems, power utilities, and various public projects. It is however worth noting that municipal bonds are yet to be used to finance county projects. A legal framework is required to safeguard counties from debt stress if the window is not properly used.

(iv) WRUA Financing Strategy

In order to carry out project in the field of environment, it is important to use the Community Forest Associations (CFAs) and Water Resource User's Associations (WRUA) strategy that improves activities that revolves around water. The activities involve the protection of water catchments, preservation of riparian areas particularly along river courses, conservation of wetlands and forests. This can be done in collaboration with WRMA and NGOs/CBOs that are friendly to the environment.

WRMA and the Water Services Trust Fund (WSTF) and development partners are currently funding these activities.

(v) NGOs/CBOs

There is substantial amount of funding of various types of projects by Non-Governmental and Community Based organizations.

c. The Private Sector

There is scope for support from development partners for infrastructural projects particularly in the road sector. The private sector is also expected to be one of the greatest contributors of capital to projects in the housing, health, business, industry and education sectors.

10.5 Monitoring and Evaluation Framework

There is need to provide a means through which checks and balances can be undertaken in order to ensure that the projects are adequately implemented and the required outputs and outcomes realized. The monitoring and evaluation framework helps with this. It outlines the projects, expected outputs and outcomes, means of achieving them, institutions involved and indicators of success. This is shown the table below.

Table 37: Project Monitoring and Evaluation Framework

Sector	Nature of Projects	No. of Projects	Monitoring Institution(s)	Expected outcomes	Indicators of Success
Capacity Building	Capacity Building	4	County Government	- Adequate capacity for proper implementation of the ISUDP and subsequent plans - Properly trained county personnel	- Proficiency in planning service delivery
Transportation	Road construction projects Road	3 19	KeNHA/ KURA/County government	- Improved road transport system - Enhanced movement of people and goods - Reduced traffic rule	- Adequacy of road network - Ease of traffic circulation - Level of traffic

	expansion and tarmacking projects			violation - improved traffic movement and road safety - Enhanced ease of movement of pedestrians across rivers and busy road - Improved rail and air transport services	rules observation - Level of road safety - Quality of transport services
	Air Transport projects	1	Kenya Airport Authority/ County Gov't		
	Railway Transport Projects	1	Kenya Railways Corporation		
	Regulation Enforcement	1	Traffic Police Dept.		
Housing	Slums Upgrading projects	1	KISIP/ County government	- Increased housing stock in the planning area - Improved living environment of the concerned residents	- Sufficiency of housing - Quality of living environment
Water & Sanitation	Water and sewerage network projects Solid waste management	5 2	Nakuru Water and Sewerage Company/ RVWSB	- Improved water supply - Better sanitation in the planning area	- Level of access to water and sewerage services - Level of sanitation
Commerce, Industry & Tourism	Industrial developments	1	Ministry of Industrialization & Enterprise Dev't/ County government	- Increased employment opportunities - Improved household income - Improved government revenue	- No of plants established - Production levels in the industry - Employment levels in the industry - Income levels of workers - Amount of revenue
Agriculture	Agricultural promotion projects	7	Ministry of Agriculture, Livestock and Fisheries County Gov't	- Enhanced agricultural productivity - Improved income to farmers	- Agricultural productivity levels - Farmers' income levels
Energy	Electrification projects	2	Rural Electrification Authority, County Gov't & Kenya Power	- Improved access to electricity, geothermal & non-renewable energy in the planning area - Reduced reliance on non-renewable sources of energy	- Extent of access to electricity and geothermal energy
	Geothermal power & non-renewable energy projects	2	Ministry of Energy/County Gov't		
Environment	Forestation/ Reforestation projects	1	Ministry of Environment and Natural Resources/ County government	- Increased forest cover in the planning area	- Extent of forest coverage

	Beautification projects	1	County Gov't	- Improve the aesthetic value of Nakuru town	- Extent of green areas in the town
Health	Construction/ Renovation of health facilities	3	Ministry of Health/ County Government	- Enhanced healthcare	- Sufficiency of health facilities - Quality of healthcare
Education	Educational facility Upgrading projects	5	Ministry of Education, Science Technology/ County Gov't	- Efficient access to education	- Sufficiency of education facilities - Quality of education
ICT & other Community facilities	Construction of Facilities	5	County Gov't	- Improved access to information - Improved access to social services - Increased of social integration in the community - Better skill development - Reduced level of idling by the youth	- Sufficiency of community facilities - Quality of social services - Level of skill development - Level of social cohesion - Innovation levels of individuals, businesses and institutions

10.6 Conclusion

A Capital Investment Plan is an important part of any integrated development plan since it identifies and costs the projects that would help to address the needs of the people in the planning area. This CIP has thus elaborately discussed details of the projects that need to be implemented in Nakuru based on the needs they have expressed throughout the planning period.

CHAPTER ELEVEN

CONCLUSION

In conclusion, this planning report has attempted to address urban planning concerns and challenges specific to Nakuru town. The proposals made in the preceding chapters have aimed at level best to strive towards sustainable growth and development of the town and are meant to serve as a guideline to the same within the town. The proposed planning interventions are as a result of broad based consultations with both stakeholders and experts and hence reflect the vision and aspirations of the entire population of Nakuru town collectively. Their formulation was based on the data obtained during the situational analysis stage of the project in which a sample population and various key informants participated. This is further supported by the fact that they were subject to constant assessment and adjustments by stakeholders during workshops, thematic and focus group discussions which were held within the course of the planning period.

The interventions, being strategic in nature suggest new approaches of resolving urban planning challenges. The integration aspect of the plan ensures the linkage between compatible and complementary land uses have been located next to each other for purposes of sharing basic common facilities and services, but also to minimize land use conflicts avoid conflicting land uses. Sectoral integration aspect of the plan also ensures that all the town sectors complement each other function in harmony hence avoiding duplication of roles and responsibilities.

The county government of Nakuru and the responsible town authorities can hence use this essential planning tool in making day to day decisions regarding the optimal use of the available (dwindling in some cases) resource base.

ANNEXES

Annex 1: Land use Regulations

Land use (code)	zone	Area description	Area (Ha)	Existing Land Use	Permitted Land Use	Minimum plot size (Ha)	Plot Ratio (%)	Plot Cov. (%)	Building Type	No. of floors (max)	Remarks
0	1	Langa Langa, Race course and Flamingo	159.72	High Density Residential	High Density Residential	0.03	520	65	flats	4	
0	2	Mwariki	113.44	High Density Residential	High Density Residential	0.045	325	65	flats	5	
0	3	Shabaab	128.47	High Density Residential	High Density Residential	0.045	520	65	flats	8	
0	4	Githima	7.97	High Density Residential	High Density Residential	0.045	200	50	flats	4	
0	5	Kaptembwo	185.01	High Density Residential	High Density Residential	0.045	200	50	flats	4	
0	6	Ronda	316.84	High Density Residential	High Density Residential	0.045	200	50	flats	4	
0	7	Barut east	1766.09	Medium Density Residential	Medium Density Residential	0.045	100	50	Two dwelling units	2	
0	8	Barut east	642.78	Low Density Residential	Low Density Residential	0.2	35	35	Bungalow	1	
0	9	Njoro, Along the Railway line	1252.07	Mixed Density Residential	Medium Density Residential	0.045	100	50	Two dwelling units	2	
0	10	Ngecha	15.90	High Density Residential	High Density Residential	0.045	250	65	flats	2	
0	11	Ngecha	67.15	Medium Density Residential	Medium Density Residential	0.045	100	50	Two dwelling units	2	
0	12	Ngata	108.58	Mixed Density Residential	High Density Residential	0.045	250	65	flats	4	
0	13	Kiamunyi/ Soilo	1295.67	Mixed Density Residential	Medium Density	0.045	70	35	maisonettes	2	

					Residential						
0	14	London	112.35	High Density Residential	High Density Residential	0.045	250	65	Flats, maisonettes	4	
0	15	Golf course/Prison road	311.68	Medium Density Residential	Medium Density Residential	0.045	200	50	maisonettes, flats, bungalows	4	
0	16	Milimani	200.33	Low Density Residential	Low Density Residential	0.2	70	35	Maisonettes town houses	2	
0	17	Milimani	232.48	Low Density Residential	Medium Density Residential	0.1	70	35	Bungalows, town house	1	
0	18	Flamingo	101.26	High Density Residential	High Density Residential	0.045	520	65	Flats,	8	
0	19	Manyani/Kivumbini	147.24	High Density Residential	High Density Residential	0.045	250	65	flats	4	
0	20	section 58/Kabachia	209.17	Medium Density Residential	Medium Density Residential	0.045	250	65	flats,	4	
0	21	white house/KITI/Mchanganyiko/teachers	527.96	High Density Residential	High Density Residential	0.045	350	65	Flats. maisonettes	4	
0	22	Kirima	784.03	Low Density Residential	Low Density Residential	0.4	50	35	bungalows	1	
0	23	Heshima/Maili Sita	334.58	Mixed Density Residential	High Density Residential	0.045	520	65	Flats, maisonettes	8	
0	24	modern/Kiamunyeki/ Engashura/workers	1577.31	Medium Density Residential	Medium Density Residential	0.045	170	35	Bungalow, maisonette	2	
0	25	Umoja	634.37	Mixed Density Residential	High Density Residential	0.045	250	65	Flats	4	
0	26	Nyonjoro	214.14	Mixed Density Residential	Medium Density Residential	0.045	1.5	50	maisonettes flats, bungalow	3	
0	27	Ndege	277.94	Mixed Density Residential	Low Density Residential	0.045	70	35	Bungalows Town houses Maisonettes	1	

0	28	Mbaruk/Kiungururia	673.52	Agricultural	Low Density Residential	0.2	70	35	bungalows and maisonettes	2	
0	29	Miti Mingi/Mbaruk	940.14	Agricultural	Medium Density Residential	0.045	100	65	maisonette, Bungalows	4	
0	30	Muguga	835.28	Agricultural	High Density Residential	0.045	250	65	flats	4	
0	31	Barnabus	230.62	Mixed Density Residential	High Density Residential	0.045	520	65	flats	8	
0	32	Free area	97.82	Commercial Residential	Commercial Residential	0.045	250	65	Flats	4	
0	33	Kiratina	299.56	Low Density Residential	High Density Residential	0.045	100	50	Two dwelling units	2	
0	34	Nakuru Blankets	142.97	Medium Density Residential	Medium Density Residential	0.045	100	50	Two dwelling units	2	
0	35	Naka C	31.11	Medium Density Residential	Medium Density Residential	0.045	200	50	Maisonettes flats	4	
0	36	Naka B	29.94	Medium Density Residential	Medium Density Residential	0.045	100	35	Maisonettes Bungalows Flats	3	
0	37	Naka A	37.55	Medium Density Residential	Medium Density Residential	0.045	70	35	Bungalows, Maisonettes Town houses	2	
0	38	Menengai	44.66	High Density Residential	High Density Residential	0.045	250	65	Flats	4	
0	39	Pipeline	427.17	Medium Density Residential	High Density Residential	0.045	240	60	Flats	4	
0	40	Mercy Njeri	58.45	Medium Density Residential	High Density Residential	0.045	240	60	Flats	4	
0	41	Mwariki B	194.14	Low Density Residential	Medium Density Residential	0.045	70	35	Bungalows, Maisonettes	2	

0	42	Lake view		High density residential	High density residential	0.045	250	65	Flats	4	
0	43	Freehold		High Density residential	High Density residential	0.045	520	65	Flats	8	
0	44	Stadium Flats		High density residential	High density residential	0.045	300	65	Flats	4	
0	45	Ngara Flats		High density residential	High density residential	0.045	520	65	Flats	8	
1	1	Industrial area, KIE	341.81	industrial	industrial	n/a	150	65	Godowns/ Showroom	3	
1	2	Nakuru Blankets	63.34	industrial	industrial	n/a	150	65	Godowns/ Showroom	3	
1	3	Lanet	47.62	industrial	industrial	n/a	150	65	Godowns/ Showroom	3	
2	1	Rift valley Institute of Science and Technology	1138.26	Educational	Educational	n/a	n/a	n/a	n/a	3	
2	2	Nakuru High and other schools	120.45	Educational	Educational	n/a	n/a	n/a	n/a	3	
2	24	St.Xaviers school (Along Moi Rd.)	1.42	educational	Educational	n/a	n/a	n/a	n/a	3	
3	1	Nakuru Athletics Club (Afraha)	6.81	Recreational	Recreational	n/a	n/a	n/a	n/a	n/a	
3	2	Golf Course	77.98	Recreational	Recreational	n/a	n/a	n/a	n/a	n/a	
4	1	Lanet Barracks	541.6	Public Purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	2	Cemetery	6.247	Public Purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	3	Manyani	3.80	Public Purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	4	Manyani	23.41	Public Purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	5	Show Ground, KMTC and PGH	121.60	Public Purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	20	Kyoto dumpsite	10.2	Public Purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	21	Govt offices (Club rd., Oginga	11.61	Public purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	

		Odinga, Mudavadi rd. and govt rd.)									
4	24	Along west road	0.5	public purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	25	Along west road	0.85	public purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	26	ACK church-Mothers union offices (Along Moi rd. and Christ the King Cathedral)	1.71	public purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
4	28	Kasarani police hq.	6.07	public purpose	Public Purpose	n/a	n/a	n/a	n/a	n/a	
5	1	Commercial areas of the CBD	292.77	Commercial	Commercial	0.045	1200	75	Commercial	15	
		Freehold fronting Kanu street		Commercial	Commercial	0.045	900	75	Commercial	12	
5	2	Mercy Njeri	32.32	Commercial Residential	Commercial Residential	0.045 0.03	300 250	75 65	Commercial Residential	4 4	
5	3	Olive inn	33.78	Commercial	Commercial	0.045	300	75	commercial	4	
5	4	Mchanganyiko	41.54	Commercial Residential	Commercial Residential	0.045 0.03	450 250	75 65	Commercial Residential	6 4	
5	6	Maili Sita	24.06	Commercial Residential	Commercial Residential	0.045 0.03	600 250	75 **65**	Commercial Residential	8 4	
5	7	Praire	108.32	Commercial	Commercial	0.045	300	75	Commercial	4	
5	8	Kabatini	23.31	Commercial	Commercial Residential	0.045 0.03	300 250	75 65	Commercial	4 4	
5	9	Barnabus	167.55	Commercial	Commercial Residential	0.045 0.03	900 520	75 65	Commercial Residential	12 8	
5	10	Githioro	1.65	Commercial	Commercial	0.045	450	75	Commercial	6	
5	11	Kiungururia	24.35	Commercial	Commercial	0.045	300	75	Commercial	4	
5	12	Heshima	21.64	Commercial	Commercial Residential	0.045 0.03	450 250	75 65	Commercial	6 4	
5	13	Maili Saba	23.69	Commercial	Commercial Residential	0.045 0.03	450 250	75 65	Commercial Residential	6 4	
5	14	Free area commercial center		Commercial	Commercial	0.045	300	75	Commercial	4	

5	15	Ponda Mali Shopping Center		Commercial	Commercial	0.045	300	75	Commercial		
5	16	Race Track Shopping Center		Commercial	Commercial	0.045	300	75	commercial	4	
5	17	Langa Langa Fronting Kanu Street		Commercial	Commercial		900	75	commercial	12	
5	18	Section 58 shopping Center		Commercial	Commercial	0.045	300	75	Commercial	4	
6	1	Mwariki sewer works	90.28	Utility	Utility	n/a	n/a	n/a	n/a	n/a	
6	2	Substation	16.89	Utility	Utility	n/a	n/a	n/a	n/a	n/a	
6	3	Kenya pipeline depot	17.06	Utility	Utility	n/a	n/a	n/a	n/a	n/a	
6	4	Kyoto Dumpsite	32.30	Utility	Utility	n/a	n/a	n/a	n/a	n/a	
7	1	railway yard	68.63	Transportation	Transportation	n/a	n/a	n/a	n/a	n/a	
7	2	Bus stop	7.12	Transportation	Transportation	n/a	n/a	n/a	n/a	n/a	
7	3	Railway Station(Main)	3.36	Transportation	Transportation	n/a	n/a	n/a	n/a	n/a	
7	4	Railway station Menengai	12.74	Transportation	Transportation	n/a	n/a	n/a	n/a	n/a	
7	5	Railway station Free area	56.56	Transportation	Transportation	n/a	n/a	n/a	n/a	n/a	
7	6	Proposed Airport	254.18		Transportation	n/a	n/a	n/a	n/a	n/a	
9	1	Barut West	3190.24	Agricultural	Agricultural	0.4	n/a	n/a	n/a	n/a	
9	2	Ngata	1834.29	Agricultural	Agricultural	0.4	n/a	n/a	n/a	n/a	
9	3	Mang'u	2010.29	Agricultural	Agricultural	0.4	n/a	n/a	n/a	n/a	
9	4	Wanyoro/Kabatini	6039.37	Agricultural	Agricultural	0.4	n/a	n/a	n/a	n/a	
9	5	Kiamunyi	428.04	Agricultural	Agricultural	0.4	n/a	n/a	n/a		
9	6	Kiamunyi	244.95	Agricultural	Agricultural	0.4	n/a	n/a	n/a	n/a	
10	1	Menengai Crater	8469.44	Conservation	Conservation	0.4	n/a	n/a	n/a	n/a	
10	2	Menengai Forest	542.15	Conservation	Conservation	0.4	n/a	n/a	n/a	n/a	

10	3	Lake Nakuru National Park	19010.42	Conservation	Conservation	0.4	n/a	n/a	n/a	n/a	

Annex 2: Urban Structure Elements

The following components must be considered which relate specifically to strategic elements that form part of the existing urban systems as well as those still to be consolidated through the strategic land use plan and actions.

STRATEGIC ELEMENT	OBJECTIVES	INSTRUMENTS
1. MOVEMENT SYSTEMS	• Support public transport, and non-motorised, i.e. cycling & pedestrians / walkability. • Reduce travel and transport costs. • Promote accessibility of communities to employment, recreation and social opportunities. • Protect the mobility function of major roads. • Ensure that the movement system links directly with and is supported by strong high intensity nodes and higher density residential development.	• Road Hierarchy • Public Transport – Bus & Taxi • Railway stations and rail network • Non- Motorised Transport (NMT) Modes
2. ENVIRONMENTAL SYSTEMS	• Create a network of green open spaces; reinforce & enhance the natural environment • Support sustainable catchment management and storm water practices. • Protect important environmental areas • Promote the prevention and reduction of pollution & environmental degradation. • Ensure adequate provision of services infrastructure to support densification and infill development.	• Metropolitan OpenSpace System • Design Guidelines. • Environmental / Biodiversity Management
3. NODAL DEVELOPMENT (Hierarchy of Nodes / Centres; refer A.)	• Ensure clustering of mixed-use activities (work, live, play and pray) at appropriate locations. • Support viable public transport. • Promote a walkable environment. • Maximise opportunities and diversity at accessible points.	• Nodal Hierarchy • Nodal Characteristics and Boundaries • Management guidelines
4. PUBLIC ENVIRONMENT ARMATURE	• Create an integrated system of public spaces and places (squares, parks, piazzas). • Link with key nodes and markets. • Form linkages via green avenues /	• Public park hierarchy. • Hierarchy of squares • Multi-functional

	tree-lined boulevards and pedestrian ways. • Integrate with and connect to sport and recreation facilities and areas.	streets
5. SUSTAINABLE NEIGHBOURHOODS	• Consolidate and direct appropriate residential neighbourhood development • Walkability. • Access to public transport • Develop appropriate housing typologies. • Promote adequate provision of social and economic amenities. • Promote appropriate densities in appropriate locations. • Promote the optimal use of existing and future infrastructure and resources.	• Typical / viable housing typologies. • Densification strategy. • Green development guidelines. • Social amenity standards. • Sustainable development principles. • Services Infrastructure Development
6. URBAN BOUNDARY	• Combat urban sprawl. • Create economies of urbanisation. • Focus on in-fill and redevelopment. • Support efficient infrastructure provision (capital investment). • Provide a mechanism for effective growth management. • Support a more efficient / compact urban form that is public transport orientated. • Protect environmentally sensitive areas, agricultural land and open space. • Support a multi-modal transportation system.	• Land use management / development guidelines. • Subdivision of Land Table. • Development Principles outside the UDB. • Incentives
7. (ACTIVITY) CORRIDOR	• Determine appropriate interventions • Maximise opportunities • Facilitate linkages • Manage new developments in a co-ordinated fashion (between / outside of nodes)	• Corridor definition • Development and Management guidelines

Annex 3: Proposed Projects for Investment (2014-2034)

No.	Project Title	Current Status	Timeframe	Financing Agency	Implementing Agency	Cost Estimate million KShs	Remarks
A	**CAPACITY BUILDING**						
1.	Procurement of GIS Equipment and Training on use	Request being prepared	Short Term	Land, Housing and Urban Development (MOLHUD)	Land, Housing and Urban Development and CG	13.0	Ministry awaiting a request from CG
2.	Normal County Capacity Building	On going	Short, medium and long term	County Government	County Government	150.0	
3.	Personal emoluments of the staffing of the proposed planning office	Proposed	Short, medium and long term	County Government	County Government	1,102.0	
4.	Basic Pre-feasibility and Feasibility Studies	Proposed	Continuous	County Government	Staff/Consultants	75.0	Necessary for some projects
B	**TRANSPORTATION**						
	QUICK WINS						
1.	Enforcement of Traffic	Not effectively implemented	Quick Win	National and County	National and County	0	Normal recurrent expenditure

	Regulations			Government	Government		
2.	Kenyatta Avenue, Change from 2- Lane to1wayroads Km	Road is 2-way	Quick Win	Kenya Urban Roads Authority/CG	KURA	0.1	Simple quick win undertakings
3.	Oginga Odinga Avenue, Change from 2- Lane to1wayroads Km	Road is 2-way	Quick Win	Kenya Urban Roads Authority/CG	KURA	0.1	Simple quick win undertakings
4.	Mburu Gichua Road, change to 3-Lanes 1 way	Road is 2-way	Quick Win	Kenya Urban Roads Authority/CG	KURA	0.15	Simple quick win undertakings
	MAJOR ROADS						
1.	Nakuru Highway By Pass 20kms.	Plans and Funding modalities completed	Short and Medium Term	World Bank/IDA	KeNHA	1,800.0	Funded by the World Bank
2.	Rehabilitation, section of Nakuru-Solai Road	On going	Short term	KURA	KURA	-	Already funded
3.	Rehabilitation of GK Prison Road about 2Km	Proposed	Short term	KURA/CG	KURA	100.0	To improve its standard and facilitate accessibility to

							Prison area
	ROADS TO PROPOSED FOR TARMACKING						
1.	Ronald Ngala Street	Earth Road	Short Term	Kenya Urban Roads Authority/CG	KURA	30.0	
2.	Mashindano Road	Earth Road	Short Term	Kenya Urban Roads Authority/CG	KURA	30.0	
3.	Mbaruk-Pipe line	Murram Road, Goes to the Nakuru National Park	Short Term	Kenya Urban Roads Authority/CG	KURA	300.0	
4.	Mercy Njeri – Ngecha (Link Road)	- Earth road - Connects Mercy Njeri to Ngecha - 7km long and 18m wide	Short Term	Kenya Urban Roads Authority/CG	KURA	486.0	
5.	Mercy Njeri – A104 (Link Road)	- Earth road - Connects Mercy Njeri to Ngata - 3km long and 3m wide	Short to Medium Term	Kenya Urban Roads Authority/CG	KURA/ Contractor	150.0	

6.	A104 – Njoro (Link Road)	- Earth road - Connects Ngata to Njoro - 8km long & 12m wide	Short to Medium Term	Kenya Urban Roads Authority/CG	KURA/ Contractor	400.0	
7.	Njoro Road – Baringo road/Naishi/Lare (Link Road)	- Earth road - Connects Ngata to Barut - 1.5km long & 20m wide	Short to Medium Term	Kenya Urban Roads Authority/CG	KURA/ Contractor	75.0	
8.	Landhies Road/Ronald Ngala street (Link Road)	- Earth road - Connects Naka to Industrial area/Afraha Free hold - 2.4km long & 30m wide	Medium Term	Kenya Urban Roads Authority/CG	KURA/ Contractor	120.0	
9.	Kabatini road (Link Road)	- Earth road - Connects Maili Sita to Kabatini and to Githioro - 12km long & 20m wide	Medium Term	Kenya Urban Roads Authority/CG	KURA	750.0	
10.	Heshima – Modern farm road (Link Road)	- Earth road - Connects Engashura to Modern farm	Medium Term	Kenya Urban Roads Authority/CG	KURA/Contractor	180.0	

		- 3.6km long					
11.	KITI – Mawanga – Githioro road (Link Road)	- Earth road - Connects Engashura to Wanyororo - 6km long & 9m wide	Medium Term	Kenya Urban Roads Authority/CG	KURA/Contractor	300.0	
12.	Heshima – Crater (Link Road)	- Earth road - Connects Kirima to Kiamaina - 4km long & 12m wide	Medium Term	Kenya Urban Roads Authority/CG	KURA/Contractor	200.0	
	ROADS PROPOSED FOR EXPANSION						
1.	Expand Mercy Njeri – Ngecha road from 18m to 25m	- Earth road - Connects Mercy Njeri to Ngecha - 7km long & 18m wide	Short Term	Kenya Urban Roads Authority/CG	KURA/Contractor	Earmarked for expansion and tarmacking above	
2.	Expand Mercy Njeri – A104 road from 3m to 9m	- Earth road - Connects Mercy Njeri to Ngata - 3km long & 3m wide	Short Term	Kenya Urban Roads Authority/CG	KURA	Earmarked for expansion and tarmacking above	

3.	Expand Kanu Street from 20m to 25m	- Paved road - Connects Kivumbini to Freehold/ Langa and to Mwariki - 1.5km long & 20m wide	Short Term	Kenya Urban Roads Authority/CG	KURA	93.0	
4.	Expand Kabatini Road from 20m to 25m	- Earth road - Connects Maili Sita to Kabatini and to Githioro - 12km long & 20m wide	Medium Term	Kenya Urban Roads Authority/CG	KURA/Contractor	Earmarked for expansion and tarmacking above	
5.	Expand A104 – Elementaita Road from 15m to 25m	- Paved road - Connects Mbaruk to Pipeline - 1km long & 15m wide	Medium Term	Kenya Urban Roads Authority/CG	KURA/Contractor	40.0	
6.	Expand Heshima – Crater Road from 12m to 15m	- Earth road - Connects Kirima to Kiamaina - 4km long & 12m wide	Medium Term	Kenya Urban Roads Authority/CG	KURA/Contractor	Earmarked for expansion and tarmacking above	

7.	Land reclamation for encroached parts of the roads proposed for expansion	Encroached	Short to medium term	Kenya Urban Roads Authority/CG	KURA/Contractor	1.0	
	RAILWAY & AIR TRANSPORT						
1.	The Standard Gauge Railway	Planned by the National Government	Medium Term/Long terms	GOK/Chinese Government		-	Second Phase of the SGR Project – National government responsibility
2.	Airport Construction	Proposed	Long Term	National Government		500.0	Faster Communication and economic activities , Increased tourism activities
	OTHER TRANSPORT RELATED PROJECTS						
1.	Construction of Street seats	Proposed	Quick win	County Government	County Government	5.0	
2.	Survey of informal roads	Proposed	Quick win	County Government	County Government	0.5	
3.	Installation of Traffic Lights and Signals in major	Ongoing	Short term	County Government	County Government	200.0	

	Junctions in the town						
4.	Construction of Street Lights	On going	Short term	County Administration	County Government	200.0	To improve security; enhance business and encourage 16-24-hour economy
5.	Construction High mast Floodlights (10)	On going	Short term	County Administration	County Government	50.0	To improve security; enhance business and encourage 16-24 hours economy
6.	Kenya Urban Infrastructure Project	On going	Short term	World Bank/KISIP		0	Already funded
7.	Construction of 10 Boda boda Sheds	Proposed	Short term	County Government	County Government	1.0	Provision of Shelter and Revenue Generation
C.	**WATER AND SANITATION**						
1.	Construction of Itare Dam	Contract for Dam supervision advertised	Medium Term	Rift Valley Water Services Board	RVWSB/ Contactor	34,000.0	Dam to supply water to Nakuru Town, Molo, Njoro, Kuresoi and Rongai areas. KShs.

							100 million available.
2.	Ground Water Development	Proposed	Short & medium Term	County Government	Rift Valley Water Services Board	100.0	To supplement the current water supply
3.	Construction of Storm Water Drainage	Ongoing - Eastern side and Menengai Area	Short and Medium	County Government	County/Contractor	100.0	
4.	Extension of the Sewer System (Sewerage Upgrading)	Sewerage confined to the CBD,	Short, Medium and Long term	Funded by Konoike-JICA	National and CG	1,000.0	This is a continuous project as the town grows
5.	Relocation of Waste Treatment Plant	Plant is Located in the National Park	Medium term	County Government	County Government	20.0	Pollutes the Lake
6.	Purchase of Land for Dumpsites (10 acres)	Provide space for Waste Disposal (Proposed)	Medium Term	County Government	County Government	40.0	Gioto and Mbaruk sites not appropriate
7.	Development of a New Dumpsite	Proposed	Medium to Long Term	County Government	County Government	3.0	Fencing the site will be necessary
D	**ENERGY**						
1.	Provision of Electricity in the	Ongoing under KISIP	Short term	KP and KISP	Kenya Power	-	Implemented by KISIP

	Informal Settlements						
2.	Geothermal Power Exploration – Menengai	On going	Continuous	GOK, KenGen/World Bank	KenGen/GOK	10,000.0	Provide a Sustainable Power Source
3.	Rural Electrification Programme (20 transformers)	On going	Continuous	Kenya Power	Kenya Rural Electrification Authority	20.0	The CG can purchase 20 Transformers.
4.	Promotion and Establishment of Renewable Energy; Solar, Wind Mills and Biogas	Proposed	Continuous	Kenya Power	County Government and Private sector	100.0	To harness alternative energy sources; Pre-Feasibility Studies, Mapping, EIA , Planning and Design Construction of Power Generation Infrastructure
E	**ENVIRONMENT**						
1.	Greening the Planning Area	Proposed	Continuous	County Government/KFS	County Government/ KFS	30.0	
2.	Conservation of Menengai Forest	On going	Short Term but maintenance	KFS and the European Union	Kenya Forest Service	40.0	

			to be continuous				
F	**HOUSING**						
1.	Slum Clearance in Rhonda	On-going	Short term	World Bank	County Department of Housing	0	KISIP is financing informal settlement
G	**HEALTH**						
1.	Purchase of 6 Number of ambulances	Proposed	Short to Medium term	County Government	County Government	20.0	
2.	Construction of 3 Cemeteries	Proposed	Medium and Long term	County Government	County Admin	60.0	Identification of land, planning and design, tendering; construction
3.	Eye theatre at County Referral Hospital within Nakuru General Hospital	Proposed	Medium and Long term	County Government	County Government	50.0	
H	**EDUCATION**						
1.	Improvement of CEDE Infrastructure	Poor state	Continuous	County Government	County Government	51.0	KShs. 3 m per year

2.	Construction of 14 New Primary School	Proposed Flagship	Short to medium term	National & County Government	County Administration	210.0	Private sector to fill the deficit
3.	Improvement of Secondary Schools	Structural defects	Short to medium term	County Admin and parents	County administration, school administration	515.0	3 National schools each Kshs.15m and the rest 470m
4.	Construction of School of Excellence (Secondary)	Proposed Flagship	Short to medium term	National & County Government	County Admin and school administration/ parents	100.0	To put in place Centres of Excellence to be models for other Institutions
5.	Land Purchase for School Infrastructure (45 acres)	Public land not available	Short to medium term	County Admin and parents	County Admin and school administration/ parents	135.0	Land values going up due to these investments
I.	**RECREATIONAL**						
1.	Construction of Nakuru County Cultural Centre	Proposed	Short term	County Admin	County government / Department of Culture and Arts	60.0	To act as a Centre to showcase all the Cultural Activities
2.	Rehabilitation of Afraha Stadium	Proposed	Short term	County Admin	County Admin	10.0	

J.	**AGRICULTURE**						
1.	Construction of a Tannery (Value Addition by private sector)	Proposed	Short term	County Government	County Government/ Livestock Department	12.0	County to provide land (3 acres) and necessary infrastructure
2.	Agricultural Extension Services	On going	Continuous	Ministry of Agriculture and Livestock Development	Ministry of Agriculture and Livestock Development	Already funded	Meant to boost agricultural production, enhance agro processing and value addition & improvement of Markets
3.	KAPAP (Kenya Agricultural Productivity and Agribusiness Project)	On going	Continuous	Ministry of Agriculture and Livestock Development	Ministry of Agriculture and Livestock Development	Already funded	Promote selected Value Chains; and Capacity building along Value Chain by Service Providers
4.	Improvement of Food Security to reduce Poverty in Urban and Peri-urban areas	On going	Continuous	Ministry of Agriculture and Livestock Development	Ministry of Agriculture and Livestock Development	Already funded	(UPAP) Urban and Peri-Urban; promotion of UPA Technologies
5.	National Agricultural Accelerated Input	On going	Continuous	Ministry of Agriculture and Livestock	Ministry of Agriculture and Livestock	Already funded	Aimed at enhancing farmers' capacity

	Access Programme (NAAIAP)			Development	Development		to acquire farm inputs.
6.	Agricultural Sector Development Support Programme (ASDSP)	On going	Continuous	Ministry of Agriculture and Livestock Development	Ministry of Agriculture and Livestock Development	Already funded	Promotion of commercially viable value chain development
7.	Promotion of Dairy Cattle, Poultry, Sheep and Goats, Rabbits, Beekeeping, Pigs and emerging Livestock	On going	Continuous	Ministry of Agriculture and Livestock Development	Ministry of Agriculture and Livestock Development	Already funded	The objective is to promote individual farmers to attain nutritional and commercial benefits
8.	Promotion of Value addition in Livestock Products and By-products	On going	Continuous	Ministry of Agriculture and Livestock Development	Ministry of Agriculture and Livestock Development	Already funded	Improve livestock product marketing and value addition
K	**COMMUNITY FACILITIES**						
1.	Construction of Youth Empowerment Centre	Proposed	Medium term	County Government	County Government	60.0	

2.	Construction of an International Convention Centre	Proposed	Medium term	County Government	County Government	60.0	
L	**ICT**						
	Digital Villages and ICT Centres throughout the planning area	Proposed	Long term	County Government	County Government	200.0	

Annex 4: Phased Out Developments for Nakuru Planning Area

Quick Wins

No.	Immediate 2016-2017	Cost Estimates (KShs. M)
1.	Enforcement of Zoning Regulations	0
2.	Enforcement of Traffic Regulations	0
3.	Naming of Streets	0.2
4.	Construction of Boda Sheds	1.0
5.	Building of Street Seats	5.0
6.	Regulation of Hawking Business	0.2
7.	Identification of Land for Public Utilities	0
8.	Identification of Service Lanes to facilitate Commerce	0
9.	Identification of Pedestrian Walks	0
10.	Surveying of Informal Roads	0.5
11.	Kenyatta Avenue, Change from 2- Lane to1wayroads Km	0.1
12.	Oginga Odinga Avenue, Change from 2- Lane to1wayroads Km	0.1
13.	Mburu Gichua Road, change to 3-Lanes 1 way	0.15
	Total	**7.25**

Short, Medium and Long Term Proposals

No.	Title of Project	Short Term	Medium Term	Long Term	Total
		2016-2022	**2022-2027**	**2027-2034**	
A.	**CAPACITY BUILDING**				
1.	Procurement of GIS Equipment and Training	8.0	2.0	3.0	13.0
2.	Normal County Capacity Building	50.0	50.0	50.0	150.0
3.	Personal emoluments for the staffing of the proposed planning office	406.0	290.0	406.0	1102.0
4.	Feasibility Studies	25.0	25.0	25.0	
	Sub Total	**489.0**	**367.0**	**484.0**	**1,340.0**

B.	**TRANSPORTATION SECTOR**				
	MAJOR ROADS				
1.	Planning and Design	50.0	40.0	30.0	120.0
2.	Nakuru Highway by Pass 20kms.	1,500.0	300.0	0.0	1800.0
3.	Rehabilitation, section of Nakuru-Solai Road	On going	0.0	0.0	0.0
4.	Rehabilitation of GK Prison Road 2 kms	100.0	0.0	0.0	0.0
	Sub Total	**1,650.0**	**340.0**	**30.0**	**1,920.0**
	ROADS PROPOSED FOR EXPANSION AND TARMACKING				
1.	Ronald Ngala Street	30.0	0.0	0.0	30.0
2.	Mashindano Road	30.0	0.0	0.0	30.0
3.	Mbaruk-Pipe line	300.0	0.0	0.0	300.0
4.	Mercy Njeri – Ngecha (Link Road) (7Kms) Exp. 18m-25m	486.0	0.0	0.0	486.0
5.	Mercy Njeri – A104 (Link Road) 3 kms Exp. 3m-9m	150.0	0.0	0.0	150.0
6.	A104 – Njoro (Link Road) 8kms	400.0	0.0	0.0	400.0
7.	Njoro Road – Baringo road/Naishi/Lare (Link Road) 1.5kms	75.0	0.0	0.0	75.0
8.	Landhies Road/Ronald Ngala street (Link Road) (2.4kms)	120.0	0.0	0.0	120.0
9.	Kabatini Road (Link Road) 12kms	0.0	750.0	0.0	750.0
10.	Heshima – Modern farm road (Link Road) 3.6kms	0.0	180.0	0.0	180.0
11.	KITI – Mawanga – Githioro Road (Link Road) 6kms	0.0	300.0	0.0	300.0
12.	Heshima – Crater (Link Road) 4kms	0.0	200.00	0.0	200.0
	Sub Total	**1,591.0**	**1,430.0**	**0.0**	**3,021.0**
	ROADS PROPOSED EXPANSION				

1.	Expand Kanu Street from 20m to 25m (1.5kms)	93.0	0.0	0.0	93.0
2.	Expand A104-Elementaita Road from 15m-25 Distance 1Km	0.0	50.0	0.0	50.0
	Sub Total	**93.0**	**50**	**0.0**	**143.0**
	RAILWAY & AIR TRANSPORT				
1.	The Standard Gauge Railway	-	-	-	-
2.	Airport Construction	0.0	0.0	500.0	500.0
	Sub Total	**0.0**	**0.0**	**500.0**	**500.0**
	OTHER TRANSPORT PROJECTS				
1.	Installation of Traffic Lights and Signals in major Junctions in the town	100.0	100.0	0.0	200.0
2.	Construction of Street Lights	100.0	100.0	0.0	200.0
3.	Construction of High mast Floodlights	50.0	0.0	0.0	50.0
4.	Kenya Urban Infrastructure Project	0.0	0.0	0.0	0.0
5.	Construction of Boda boda Sheds	1.0	0.0	0.0	1.0
	Sub Total	**251.0**	**200.0**	**0.0**	**451.0**
C.	**WATER AND SANITATION**				
1.	Construction of Itare Dam	20,000.0	14,000.0	0.0	34000.0
2.	Ground Water Development	50.0	50.0	0.0	100.0
3.	Construction of Storm Water Drainage	50.0	50.0	0.0	100.0
4.	Extension of the Sewer System (Sewerage Upgrading)	500.0	400.0	100.0	1,000.0
5.	Relocation of Waste Treatment Plant	20.0	0.0	0.0	20.0
6.	Purchase of Land for Dumpsites (10 acres)	40.0	0.0	0.0	40.0
7.	Development of a New	0.0	3.0	0.0	3.0

	Dumpsite				
	Sub Total	**20,660**	**14,503**	**100.0**	**35,263.0**
D.	**ENERGY**				
1.	Provision of Electricity in the Informal Settlements	KISIP	KISIP		0.0
2.	Geothermal Power Exploration – Menengai	500.0	400.0	100.0	1,000.0
3.	Rural Electrification Programme (Provide 20 Transformers)	10.0	5.0	5.0	20.0
4.	Promotion and Establishment of Renewable Energy; Solar, Wind Mills and Biogas	50.0	40.0	10.0	100.0
	Sub Total	**560.0**	**445.0**	**115.0**	**1,120**
E.	**ENVIRONMENT**				
1.	Greening the planning area	10.0	10.0	10.0	30.0
2.	Conservation of Menengai Forest	30.0	5.0	5.0	40.0
	Sub Total	**40.0**	**15.0**	**15.0**	**70.0**
F.	**HOUSING**				
1.	Slum Clearance in Rhonda	KISIP			0.0
G.	**HEALTH**				
1.	Purchase of 6 Number of ambulances	20.0	0.0	0.0	20.0
2.	Construction of 3 Cemeteries	10.0	50.0	0	60.0
3.	Eye theatre at County Referral Hospital within Nakuru General Hospital	0.0	25.0	25.0	50.0
	Sub Total	**30.0**	**75.0**	**25.0**	**130.0**
H.	**EDUCATION**				
1	Improvement of CEDE Infrastructure	15.0	15.0	21.0	51.0

2	Construction of 14 New Primary School	75.0	75.0	60.0	210.0
3	Improvement of Secondary Schools	200.0	315.0	0.0	515.0
4	Construction of School of Excellence (Secondary)	50.0	50.0	0.0	100.0
5	Land Purchase for School Infrastructure (45 acres)	100.0	35.0	0.0	135.0
	Sub Total	**440.0**	**490.0**	**81.0**	**1,011.0**
I.	**RECREATIONAL**				
1.	Construction of Nakuru County Cultural Centre	60.0	0.0	0.0	60.0
2.	Rehabilitation of Afraha Stadium	10.0	0.0	0.0	10.0
	Sub Total	**70.0**	**0**	**0**	**70.0**
J.	**COMMUNITY FACILITIES**				
1.	Construction of Youth Empowerment Centre	0.0	60.0	0.0	60.0
2.	Construction of an International Convention Centre	0.0	60.0	0.0	60.0
	Sub Total	**0.0**	**120.0**	**0.0**	**120.0**
K.	**AGRICULTURE**				
1.	Construction of a Tannery (Value Addition by private sector)	12.0	0.0	0.0	12.0
	Sub Total	**12.0**	**0.0**	**0.0**	**12.0**
L.	**ICT**				
	Digital Villages and ICT Centres throughout the planning area	0.0	100.0	100.0	200.0
	Sub Total	**0.0**	**100.0**	**100.0**	**200.0**
	GRAND TOTAL	**25,886**	**18,135**	**1,450**	**45,471**

Total cost estimate at constant prices is KShs. 45.5 Billion

Annex 5: Project Implementation Matrix

Project Name	Objectives	Location	Implementing Agency	Roles of Implementing Agency	Resource Requirements	Implementation period
CAPACITY BUILDING						
Strengthening the Nakuru County Planning Department and training of all relevant personnel.	To build capacity for proper implementation of the ISUDP and subsequent plans	County Gov't Lands and Planning offices	County Gov't	- Equipping the department as necessary - Mobilizing the staff to be trained - Financing the process	- Finances - Human resource - Training space& equipment	Short term
Procurement of GIS Equipment and Training	To promote GIS Based planning in the county	County Gov't Lands and Planning offices	County Gov't	- Financing the project - Contracting the GIS equipment suppliers - Maintenance of the equipment - Mobilizing the staff to be trained	- Finances	Short term
TRANSPORTATION SECTOR						
Enforcement of Traffic Regulations	To regulate traffic rule violation and improve traffic movement and road safety	Entire planning area	Traffic police Road users	- Formulating adequate and effective traffic rules - Enforcing the rules - Observation of the traffic regulations	- Human resource	Continuous
3No. Road construction & rehabilitation projects	To improve road transport system To enhance movement of people and	Nakuru town centre	Planners and Engineers KeNHA/	- Planning and design of roads and surrounding land uses - Financing the projects - Identification and	- Land - Finances - Human resource	Medium term

	goods		KURA/County government Contractors and surveyors Residents/NGOs/CBOs	acquisition/ purchase of land - Contracting experts - Maintenance of the roads - Actual construction works - Contribution of resources e.g. money, labour, ideas etc.		
19No. Road expansion and tarmacking projects	To improve road transport system To enhance movement of people and goods	Entire planning area	Planners and Engineers KURA/County government Contractors and surveyors	- Planning and design of roads and surrounding land uses - Financing the projects - Identification and acquisition/ purchase of land - Contracting experts - Maintenance of the roads - Actual construction works - Contribution of resources e.g. money, labour, ideas etc.	- Land - Finances - Human resource	Short, medium and long terms

			Residents/NGOs/CBOs			
Construction of an international airport	To improve air travel services	Location to be identified	Planners, architects and Engineers Kenya Airport Authority/ County government Contractors Residents/NGOs/CBOs	- Planning and design of airstrip and surrounding land uses - Financing the project - Contracting experts - Identification and acquisition/ purchase of land - Maintenance of the airstrip - Actual construction works - Contribution of resources e.g. money, labour, ideas etc.	- Land - Finances - Human resource	Short to medium term
HOUSING SECTOR						
1No. Slum Upgrading projects	To improve living conditions of the concerned residents	Rhonda	KISIP/ County government Planners and	- Financing the project - Contracting experts - Maintenance of the houses - Planning and design works - Construction - Contribution of	- Finances - Human resource	Short and medium terms

			Architects Contractors Residents/NGOs/CBOs	resources e.g. money, labour, ideas etc.		
WATER AND SANITATION SECTOR						
Construction of Itare Dam & Ground Water Development	To improve access to piped water supply by planning area residents	Nakuru town	Nakuru Water and Sewerage Company/ County Gov't Kenya Water Trust Fund/ WRUAs Planners and Engineers Contractors Residents/NGOs/CBOs	- Financing the project - Identifying and acquisition of land - Contracting experts - Help in financing the project - Planning and design works - Construction - Contribution of resources e.g. money, labour ideas etc.	- Land - Finances - Human resource	Short and medium terms
3No. Improvement of sanitation and sewerage services	To improve sanitation and sewerage services in the concerned areas	Entire planning area	Nakuru Water and Sewerage Company/ County Gov't	- Financing the project - Identifying and acquisition of land - Contracting experts - Planning and design works	- Land - Finances - Human resource	Medium term

			Planners and Engineers Contractors Residents/NGOs/CBOs	- Construction - Contribution of resources e.g. money, labour ideas etc.		
Construction of Solid Waste Management facilities	To improve solid waste management in the planning area	Entire planning area	County Gov't Contractors Residents/NGOs/CBOs Private solid waste management firms, Residents and CBOs/ Neighbourhood Youth Groups	- Financing the project - Identifying and acquisition of land - Contracting experts - Construction - Contribution of resources e.g. money, labour ideas etc. - Proper collection and disposing of solid waste	- Land - Finances - Human resource	Short term
COMMERCE, INDUSTRY AND TOURISM SECTOR						
Establishment of 1No. tannery	To enhance industrial productivity in the	Location to be identified	Ministry of Industrialization & Enterprise	- Identification of ideal spaces/land and	- Land - Finances - Human resource	Medium term

	planning area		Development/ County government Planners/ Architects Private investors/ Business groups Kenya Manufacturers Association (Nakuru Branch)	acquisition of the same - Financing construction of some of the plants and/or offering subsidies to private investors - Planning and design works - Financing the construction and equipping them - Conducting the actual business - Financing the projects - Mobilizing members to invest in the ventures		
AGRICULTURE SECTOR						
7No. agricultural support projects	To enhance agricultural productivity	Kiganjo/ Mathari Ward	Ministry of Agriculture, Livestock and Fisheries County Gov't Resident	- Financing the project - Contributing finances - Organizing and monitoring the process - Farming & irrigation works	- Land - Finances - Human resource	Continuous

			Farmers Associations and individual Farmers			
ENERGY SECTOR						
2No. electrification projects	To improve access to electricity in the planning area	Nakuru informal settlements	KISIP County government Kenya Power Residents and business people	- Financing the project - Help to identify land (way leave) and acquire the same - Help KISIP in organizing and monitoring the process - Establishment of electricity networks and supply of electricity - Electrical installation works in the homesteads & business premises	- Land - Finances - Human resource	Short to medium term
Geothermal Power Exploration –	To provide geothermal energy in the planning area	Menengai crater	Ministry of energy	- Financing the project		
ICT SECTOR						

Digital Villages and ICT Centres	To improve access to information by residents, business people and various institutions	Throughout the planning area	County Gov't	- Financing - Identification and acquisition of land - Equipping the centres - Maintenance of the centre	- Land - Finances - Human resource	Short term
ENVIRONMENT SECTOR						
Beautification and Greening Nakuru town	To improve the aesthetic value of Nakuru town	Nakuru town	County Gov't Landscape Architects/ contractors Private institutions	- Financing the project - Supervision of works - Design and landscaping works - Sponsorship of landscaping sections of the town	- Finances - Human resource	Short to medium term
Menengai Forest Rehabilitation	To increased forest cover in the planning area	Menengai Forest	Ministry of Environment and Natural Resources/ County government Residents	- Financing the project - Participation in tree planting and maintenance	- Finances - Human resource	Short to medium term
HEALTH SECTOR						
Construction of 3 Cemeteries	To enhance healthcare	Nakuru town	County government	- Financing the project - Contracting experts - Supervising construction work	- Finances - Human resource	Short term
2No. projects of, equipping health		Nakuru General	Ministry of Health/ County	- Financing the project	- Land - Finances - Human resource	Short to medium term

facilities		Hospital	government Residents Planners/ Architects Contractors	- Contribution of resources e.g. money, labour ideas etc. - Planning and Design works - Construction works		
EDUCATION SECTOR						
Improvement of CEDE Infrastructure Construction of 14 New Primary School Improvement of Secondary Schools	To meet future demand for education	Entire planning area	Ministry of Education, Science Technology/ County Gov't Constituency Development Fund Private institutions/religious institutions/ private individuals Planners/ Architects/ Contractor	- Funding the projects - Contracting experts and supervising works - Helping in funding the projects - Construction and running some of the schools - Planning, design and construction works	- Land - Finances - Human resource	Short to medium to long term
COMMUNITY FACILITIES						

Construction of Nakuru County Cultural Centre	To promote social activities	Nakuru town	County Gov't Constituency Development Fund Private institutions/religious institutions/ private individuals Planners/ Architects/ Contractor	- Funding the projects - Contracting experts and supervising works - Helping in funding the projects - Construction and running some of the schools - Planning, design and construction works	- Finances - Human resource - Land - Finances - Human resource	Medium term
Rehabilitation of Afraha Stadium	To increase capacity and improve condition of the stadium	Afraha stadium				Quick win
Construction of an International Convention Centre	To provide a platform for social-economic conference activities	Nakuru town				Short to medium term
Construction of Youth Empowerment Centre	To enhance youths' ability to be productive	Nakuru town				Short to medium term Medium to long term

Annex 6: Monitoring & Evaluation Matrix

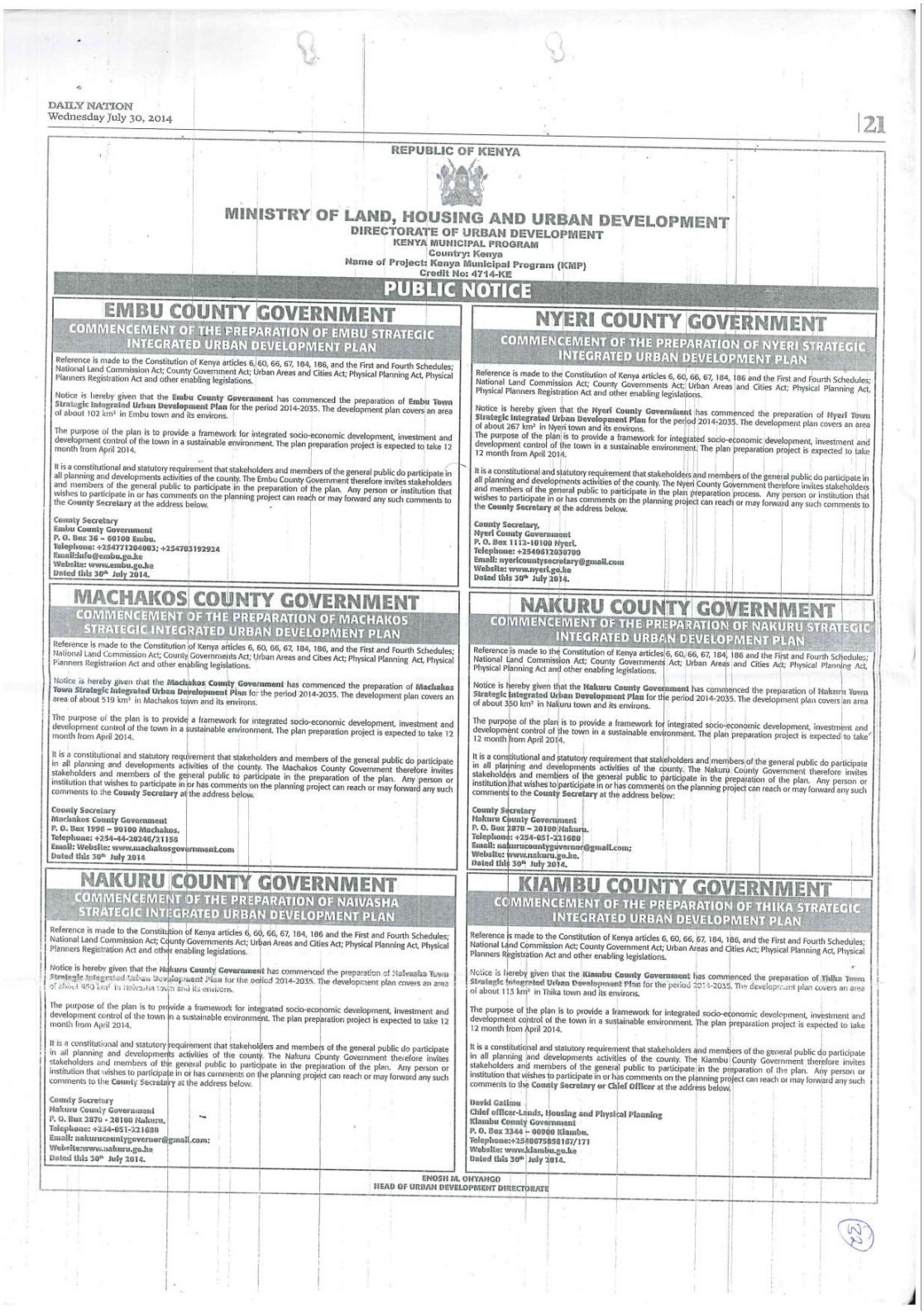
Project	Monitoring Institutions	Expected output(s)	Expected outcome(s)	Indicators of success
CAPACITY BUILDING SECTOR				
Strengthening the Nakuru County Planning Department and training of all relevant personnel.	County Government	Well-structured County Planning Department	- Adequate capacity for proper implementation of the ISUDP and subsequent plans - Properly trained county personnel	Proficiency in planning service delivery
Procurement of GIS Equipment	County Government	Adequate GIS Equipment	- GIS Based planning in the county	Adequacy of the GIS equipment and level of effectiveness in planning
TRANSPORTATION SECTOR				
Enforcement of Traffic Regulations	Traffic Police Department	Traffic Policy/ Rules and Regulations	- Reduced traffic rule violation - Improved traffic movement and road safety	Level of traffic rules observation and road safety
Project	**Monitoring Institutions**	**Expected output(s)**	**Expected outcome(s)**	**Indicators of success**
TRANSPORT SECTOR CONT'D				
3No. Road construction & rehabilitation projects 19No. Road expansion and tarmacking projects	KURA/KeNHA & County Government	Road network of adequate capacity and good condition	- Improved road transport system - Enhanced movement of people and goods	- Adequacy of road network - Ease of traffic circulation - Level of road safety - Quality of transport services
Construction of an international airport	Kenya Airports Authority/ & County Government	Higher capacity air strip	- Increased capacity of Nyaribo airstrip - Improved air transport services	
HOUSING SECTOR				
1No. Slums Upgrading projects	KISIP/ County government	Well organized settlements with proper	- Improved living environment of the concerned residents	

		infrastructure		
WATER & SANITATION				
Construction of Itare Dam & Ground Water Development	Nakuru Water and Sewerage Company/ RVWSB/County Gov't	Properly functioning town-wide water reticulation system	- Improved access to piped water supply by planning area residents	- Level of access to water and sewerage services - Level of sanitation
		135m^3 water storage tank	- Improved water supply	
3No. projects on Improvement of sanitation and sewerage services		Adequate sewerage system	- Better sanitation in the planning area	
Construction of Solid Waste Management facilities	County Gov't	Adequate solid Waste Management facilities		
COMMERCE, INDUSTRY AND TOURISM SECTOR				
Establishment of 1No. tannery	Ministry of Industrialization & Enterprise Development/ County government	Adequate food processing plants	- Enhanced value addition to agricultural products - Increased employment opportunities - Improved household income - Improved government revenue	- No of plants established - Production levels in the industries - Employment levels in the industries - Income levels of workers
AGRICULTURE SECTOR				
7No. agricultural support projects	Ministry of Agriculture, Livestock and Fisheries/ County government	Operational irrigation schemes	- Enhanced agricultural productivity - Better fish farming - Improved income to farmers	- Agricultural productivity levels - Farmers' income levels
		Productive fish farms		
ENERGY SECTOR				
No. electrification projects	Kenya Rural Electrification Authority/ Kenya Power	Increased coverage of electricity networks	- Improved access to electricity in the planning area - Reduced reliance on non-renewable energy sources	- Extent of access to electricity

Geothermal Power Exploration	Ministry of energy	Functional geothermal power plant and energy supply system	- Increased energy supply	- Extent of access to geothermal power
ICT SECTOR				
Digital Villages and ICT Centres	County government	Functional County ICT and Resource Centre	- Improved access to information by residents, business people and various institutions	- Functionality of the centre - Innovation levels of individuals, businesses and institutions
			-	-
ENVIRONMENT SECTOR				
Beautification and Greening Nakuru town	County government	Landscaped town	- Improve the aesthetic value of Nakuru town	- Extent of green areas in the town
Menengai Forest Rehabilitation		Forest cover in Menengai crater	- Increased forest cover in the planning area	- Extent of forest coverage
HEALTH SECTOR				
Construction of 3 Cemeteries	County government	Sufficient health facilities	- Enhanced healthcare	- Sufficiency of health facilities - Quality of healthcare
2No. projects of equipping health facilities				
EDUCATION SECTOR				
Improvement of CEDE Infrastructure Construction of 14 New Primary School	Ministry of Education, County Government, School administrations	Sufficient education facilities	- Efficient access to education	- Sufficiency of education facilities - Quality of education

Improvement of Secondary Schools				
COMMUNITY FACILITIES				
Rehabilitation of Afraha Stadium	County government	Enough community facilities	- Improved access to social services - Increased of social integration in the community - Better skill development - Reduced level of idling by the youth - Income generation by youth in the entertainment industry - Improved access to information	- Sufficiency of community facilities - Quality of social services - Level of skill development - Level of social cohesion
Construction of Nakuru County Cultural Centre				
Construction of an International Convention Centre				
Construction of Youth Empowerment Centre				

Annex 7: Notice of Intention to Plan



DAILY NATION
Wednesday July 30, 2014

21

REPUBLIC OF KENYA

MINISTRY OF LAND, HOUSING AND URBAN DEVELOPMENT

DIRECTORATE OF URBAN DEVELOPMENT
KENYA MUNICIPAL PROGRAM
Country: Kenya
Name of Project: Kenya Municipal Program (KMP)
Credit No: 4714-KE

PUBLIC NOTICE

EMBU COUNTY GOVERNMENT

COMMENCEMENT OF THE PREPARATION OF EMBU STRATEGIC INTEGRATED URBAN DEVELOPMENT PLAN

Reference is made to the Constitution of Kenya articles 6, 60, 66, 67, 184, 186, and the First and Fourth Schedules; National Land Commission Act; County Government Act; Urban Areas and Cities Act; Physical Planning Act, Physical Planners Registration Act and other enabling legislations.

Notice is hereby given that the **Embu County Government** has commenced the preparation of **Embu Town Strategic Integrated Urban Development Plan** for the period 2014-2035. The development plan covers an area of about 102 km² in Embu town and its environs.

The purpose of the plan is to provide a framework for integrated socio-economic development, investment and development control of the town in a sustainable environment. The plan preparation project is expected to take 12 month from April 2014.

It is a constitutional and statutory requirement that stakeholders and members of the general public do participate in all planning and developments activities of the county. The Embu County Government therefore invites stakeholders and members of the general public to participate in the preparation of the plan. Any person or institution that wishes to participate in or has comments on the planning project can reach or may forward any such comments to the **County Secretary** at the address below.

County Secretary
Embu County Government
P. O. Box 36 – 60100 Embu.
Telephone: +254771204003; +254703192924
Email:info@embu.go.ke
Website: www.embu.go.ke
Dated this 30th July 2014.

NYERI COUNTY GOVERNMENT

COMMENCEMENT OF THE PREPARATION OF NYERI STRATEGIC INTEGRATED URBAN DEVELOPMENT PLAN

Reference is made to the Constitution of Kenya articles 6, 60, 66, 67, 184, 186 and the First and Fourth Schedules; National Land Commission Act; County Governments Act; Urban Areas and Cities Act; Physical Planning Act, Physical Planners Registration Act and other enabling legislations.

Notice is hereby given that the **Nyeri County Government** has commenced the preparation of **Nyeri Town Strategic Integrated Urban Development Plan** for the period 2014-2035. The development plan covers an area of about 267 km² in Nyeri town and its environs.
The purpose of the plan is to provide a framework for integrated socio-economic development, investment and development control of the town in a sustainable environment. The plan preparation project is expected to take 12 month from April 2014.

It is a constitutional and statutory requirement that stakeholders and members of the general public do participate in all planning and developments activities of the county. The Nyeri County Government therefore invites stakeholders and members of the general public to participate in the plan preparation process. Any person or institution that wishes to participate in or has comments on the planning project can reach or may forward any such comments to the **County Secretary** at the address below.

County Secretary,
Nyeri County Government
P. O. Box 1113-10100 Nyeri.
Telephone: +254061203700
Email: nyericountysecretary@gmail.com
Website: www.nyeri.go.ke
Dated this 30th July 2014.

MACHAKOS COUNTY GOVERNMENT

COMMENCEMENT OF THE PREPARATION OF MACHAKOS STRATEGIC INTEGRATED URBAN DEVELOPMENT PLAN

Reference is made to the Constitution of Kenya articles 6, 60, 66, 67, 184, 186, and the First and Fourth Schedules; National Land Commission Act; County Governments Act; Urban Areas and Cities Act; Physical Planning Act, Physical Planners Registration Act and other enabling legislations.

Notice is hereby given that the **Machakos County Government** has commenced the preparation of **Machakos Town Strategic Integrated Urban Development Plan** for the period 2014-2035. The development plan covers an area of about 519 km² in Machakos town and its environs.

The purpose of the plan is to provide a framework for integrated socio-economic development, investment and development control of the town in a sustainable environment. The plan preparation project is expected to take 12 month from April 2014.

It is a constitutional and statutory requirement that stakeholders and members of the general public do participate in all planning and developments activities of the county. The Machakos County Government therefore invites stakeholders and members of the general public to participate in the preparation of the plan. Any person or institution that wishes to participate in or has comments on the planning project can reach or may forward any such comments to the **County Secretary** at the address below.

County Secretary
Machakos County Government
P. O. Box 1996 – 90100 Machakos.
Telephone: +254-44-20246/21156
Email: Website: www.machakosgovernment.com
Dated this 30th July 2014

NAKURU COUNTY GOVERNMENT

COMMENCEMENT OF THE PREPARATION OF NAKURU STRATEGIC INTEGRATED URBAN DEVELOPMENT PLAN

Reference is made to the Constitution of Kenya articles 6, 60, 66, 67, 184, 186, and the First and Fourth Schedules; National Land Commission Act; County Governments Act; Urban Areas and Cities Act; Physical Planning Act, Physical Planners Registration Act and other enabling legislations.

Notice is hereby given that the **Nakuru County Government** has commenced the preparation of Nakuru Town **Strategic Integrated Urban Development Plan** for the period 2014-2035. The development plan covers an area of about 350 km² in Nakuru town and its environs.

The purpose of the plan is to provide a framework for integrated socio-economic development, investment and development control of the town in a sustainable environment. The plan preparation project is expected to take 12 month from April 2014.

It is a constitutional and statutory requirement that stakeholders and members of the general public do participate in all planning and developments activities of the county. The Nakuru County Government therefore invites stakeholders and members of the general public to participate in the preparation of the plan. Any person or institution that wishes to participate in or has comments on the planning project can reach or may forward any such comments to the **County Secretary** at the address below:

County Secretary
Nakuru County Government
P. O. Box 2870 – 20100 Nakuru.
Telephone: +254-051-221680
Email: nakurucountygovernor@gmail.com;
Website: www.nakuru.go.ke.
Dated this 30th July 2014.

NAKURU COUNTY GOVERNMENT

COMMENCEMENT OF THE PREPARATION OF NAIVASHA STRATEGIC INTEGRATED URBAN DEVELOPMENT PLAN

Reference is made to the Constitution of Kenya articles 6, 60, 66, 67, 184, 186 and the First and Fourth Schedules; National Land Commission Act; County Governments Act; Urban Areas and Cities Act; Physical Planning Act, Physical Planners Registration Act and other enabling legislations.

Notice is hereby given that the **Nakuru County Government** has commenced the preparation of Naivasha Town Strategic Integrated Urban Development Plan for the period 2014-2035. The development plan covers an area of about 950 km² in Naivasha town and its environs.

The purpose of the plan is to provide a framework for integrated socio-economic development, investment and development control of the town in a sustainable environment. The plan preparation project is expected to take 12 month from April 2014.

It is a constitutional and statutory requirement that stakeholders and members of the general public do participate in all planning and developments activities of the county. The Nakuru County Government therefore invites stakeholders and members of the general public to participate in the preparation of the plan. Any person or institution that wishes to participate in or has comments on the planning project can reach or may forward any such comments to the **County Secretary** at the address below.

County Secretary
Nakuru County Government
P. O. Box 2870 - 20100 Nakuru.
Telephone: +254-051-221680
Email: nakurucountygovernor@gmail.com;
Website:www.nakuru.go.ke
Dated this 30th July 2014.

KIAMBU COUNTY GOVERNMENT

COMMENCEMENT OF THE PREPARATION OF THIKA STRATEGIC INTEGRATED URBAN DEVELOPMENT PLAN

Reference is made to the Constitution of Kenya articles 6, 60, 66, 67, 184, 186, and the First and Fourth Schedules; National Land Commission Act; County Government Act; Urban Areas and Cities Act; Physical Planning Act, Physical Planners Registration Act and other enabling legislations.

Notice is hereby given that the **Kiambu County Government** has commenced the preparation of **Thika Town Strategic Integrated Urban Development Plan** for the period 2014-2035. The development plan covers an area of about 113 km² in Thika town and its environs.

The purpose of the plan is to provide a framework for integrated socio-economic development, investment and development control of the town in a sustainable environment. The plan preparation project is expected to take 12 month from April 2014.

It is a constitutional and statutory requirement that stakeholders and members of the general public do participate in all planning and developments activities of the county. The Kiambu County Government therefore invites stakeholders and members of the general public to participate in the preparation of the plan. Any person or institution that wishes to participate in or has comments on the planning project can reach or may forward any such comments to the **County Secretary or Chief Officer** at the address below.

David Gaitmu
Chief officer-Lands, Housing and Physical Planning
Kiambu County Government
P. O. Box 2344 - 00900 Kiambu.
Telephone:+254067585816/171
Website: www.kiambu.go.ke
Dated this 30th July 2014.

ENOSH M. ONYANGO
HEAD OF URBAN DEVELOPMENT DIRECTORATE

Annex 8: List of Stakeholders

Name	Designation	Organization	Phone Number	Email Address
Margaret W.Kirori	Sub_county Administrator	Bahati	0722637620	kirorimargaret@yahoo.com
Sophia Mwihak		Bahati	0722418189	sophiawatitu@yahoo.com
Ben .O.Nyakinya	Administrator	CGN	0727895526	nyakinyab@gmail.com
VitallisO.Okello	MCA	CGN	07222143355	okellovitalis@gmail.com
Ann Kamami Jackson	Sports Officer	CGN	0706099910	annkiungo@gmail.com
Robert Kiprono	Director	CGN	0722831061	Kipronorutto26@gmail.com
MayakaNyaroo	Physical Planner	CGN	0722321360	jnyaroo@yahoo.com
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