BACKGROUND INFORMATION DOCUMENT (BID)

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR WINDHOEK TOWNLANDS KHOMAS REGION NAMIBIA

October 2022

City of Windhoek
The Gateway to Endless Opportunities

Excel Dynamic Solutions (PTY) LTD

TONY BARBOUR ENVIRONMENTAL CONSULTING

Stubenrauch Planning Consultants SPC

1. INTRODUCTION

Excel Dynamic Solutions in partnership with Stubenrauch Planning Consultants (SPC) were appointed by the Windhoek Municipal Council (Council) to conduct a Strategic Environmental Assessment (SEA) for the City of Windhoek. The focus of the SEA is the Council's proclaimed boundaries as defined in Government Gazette No. 4801, Notice No. 184 of 2011, which cover an area of 5 142 km2 (Figure 1). The timeframe for the SEA is 10 years, therefore for the period 2020-2030.

The SEA will be undertaken in accordance with part X: General Provision, Section 56 of the Environmental Management Act, 2007, while taking into consideration Procedures and Guidelines for Strategic Environmental Assessment (SEA) and Environmental Management Plan (EMP) of 2008 and current Draft Strategic Environmental Assessment (SEA) Regulations: Environmental Management Act, 2007.

2. PURPOSE OF THIS DOCUMENT

The aim of the Background Information Document (BID) is to provide background information to the public, interested and affected parties (I&APs), and potential stakeholders on the SEA study and the key activities being undertaken. The BID also provides the Baseline Status Quo Report (BSQR) findings (Annexure 1) and contact information to enable members of the public to register as I&APs and be included in the SEA database so that they can be kept informed about the SEA study (progress) and for them to provide input and comments.

3. OBJECTIVES OF THE SEA

The key objective of the SEA is to update the existing SEA undertaken in 2010, and in so doing, identify and assess the potential cumulative impacts of current and planned future development trends on the environmental integrity of the City of Windhoek for the period 2020-2030 and its ability to achieve sustainable development.

In meeting the objectives, the SEA involves:

- Assessing the current baseline environmental conditions (physical, biological, socio-economic, land uses, etc.). The focus of the SEA is on key environmental issues of strategic importance.
- Identify the potential cumulative impacts associated with planned activities on Windhoek's environment, natural resources base, and socio-economic conditions taking into account baseline conditions and proposed and or potential developments.
- Determine which development options present a framework for achieving environmentally sustainable development by (1) undertaking a limited, preliminary impact assessment of major individual development under consideration; (2) Assessing the potential cumulative impacts, and (3) evaluating the development projects in terms of how they meet the principles of sustainable development.

4. WHAT IS AN SEA?

The philosophy underpinning the need for a SEA is based on the understanding that a precondition for sustainable development is the maintenance of a healthy and robust natural environment. The identification of social and economic objectives must therefore be critically informed by the overall carrying capacity of the natural environment. This carrying capacity must therefore be assessed to ensure that the environmental characteristics of the area are not in turn negatively impacted upon by future developments. A key objective of the SEA is therefore to identify and assess the potential cumulative impacts of current and future development trends on environmental integrity and the ability to achieve sustainable development.

The concept of SEA essentially involves the application of Environmental Impact Assessment (EIA) principles to decisions that are taken at policy, plan and programme levels, as opposed to decisions taken at a specific project level. While there is no internationally agreed definition of SEA, the interpretation of Sadler and Verheem (1996) is widely quoted:

“SEA is a systematic process for evaluating the environmental consequences of the proposed policy, plan and programme initiatives in order to ensure that they are fully included and appropriately addressed at the earliest appropriate stage of decision-making on par with and social considerations”

The interest in SEA has grown out of a growing recognition of the limitations of EIA in addressing environmental issues that extend beyond the project level. The reasons for developing and introducing SEA to the decision-making process are, therefore, essentially threefold, namely to:

- Strengthen project-level EIA.
- Assist in identifying and addressing cumulative and large-scale environmental effects.
- Incorporate sustainability considerations into high-level decision-making (Sadler and Verheem, 1996).

According to the Organisation for Economic Co-operation and Development (OECD) (2006), applying SEA to development co-operation has benefits for both decision-making procedures and development outcomes. These benefits are that the SEA:

- Provides the environmental evidence to support more informed decision making, and to identify new opportunities by encouraging a systematic and thorough examination of development options.
- Helps to ensure that the prudent management of natural resources and the environment provide the foundations for sustainable economic growth which, in turn, supports political and social stability.
- SEA can also assist in building stakeholder engagement for improved governance, facilitate transboundary co-operation around shared environmental resources, and contribute to conflict prevention.

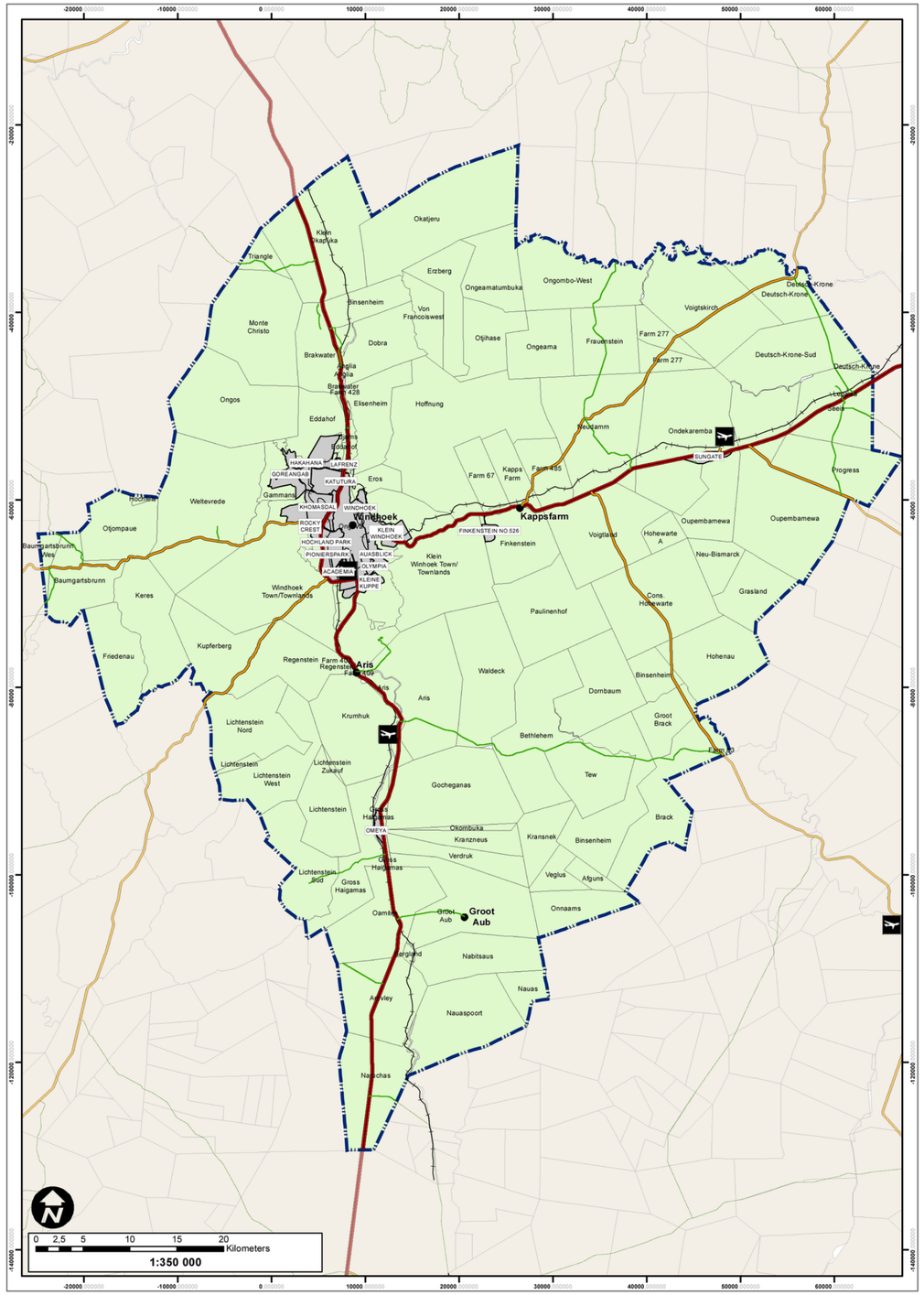

Figure 1: Locality Map of Windhoek in central Namibia and new boundaries of the Windhoek Municipality and Townlands

5. SEA PROCESS AND ACTIVITIES

As indicated above the concept of SEA essentially involves the application of EIA methods and principles to decisions that are taken at policy, plan, and programme levels, as opposed to decisions taken at a specific project level. Based on the Terms of Reference (ToR) the approach to the SEA is divided into four phases, namely:

Phase 1: Project Design.

Phase 2: Stakeholder Engagement.

Phase 3A: Baseline Review.

Phase 3B: Assessment.

Phase 4: Implementation Plan.

These phases are outlined below.

5.1Phase 1: Project Design

The aim of this component of the SEA was to confirm the context of the SEA, the ToR and obtain agreement on the proposed approach. This component of the SEA has been completed. The key activities included a project initiation and planning meetings with the Windhoek Municipal Council to:

- Introduce the SEA project team to the Municipal Council,
- Outline and confirm the approach to the SEA, including key activities, deliverables, and timeframes.
- Identify information requirements and sources.

5.2 Phase 2: Stakeholder Engagement

Stakeholder Engagement is a key requirement of SEAs. The process will be initiated at the start of the SEA process and run throughout the study. In this regard the overall aim of the Stakeholder Engagement Phase is threefold, namely:

- To inform key stakeholders and the public of the SEA and its objectives.
- To provide key stakeholders and the public with the opportunity to identify key issues relevant to the SEA.
- To present the findings of the SEA to key stakeholders and the public for their comments.

In terms of timing, the Stakeholder Engagement component of the SEA will commence at the start of the SEA and run in parallel to Phase 3 (3A and 3B) and Phase 4 of the SEA. Stakeholder Engagement is, therefore, a key component of the SEA study.

5.2.1 Notification of the SEA Process

The official and approved SEA adverts (by the Windhoek Municipality) will be:

- Placed In various countrywide read newspapers,
- Municipal Council information sharing platforms such as Aloe Publication, Social Media Platforms, and website
- Presented in A3 size posters (notices) to be placed at selected strategic places around Windhoek, such as libraries, etc.
- Made available online. This will be but not limited to the Consultant's and Municipality's organizational websites and relevant social media pages.

The communication channels for all Interested and Affected Parties (I&APs) to engage with the independent consultants will include a direct phone line, email address, and postal address (see 5.2.2).

5.2.2 Registration and Submission of Comments, Inputs, Concerns, etc.

To submit inputs, comments, suggestions, and or raise issues/concerns that you think need to be considered for incorporation into the SEA, please register with Excel Dynamic Solutions (Pty) Ltd as an Interested and Affected Party (I&AP) using either of the contact details below (according to your preference and suitability).

1. **Email:** public@edsnamibia.com/ntjelos@edsnamibia.com
2. **Website:** http://edsnamibia.com/projects
3. **Post:** Attention: Mr. Nerson Tjelos Excel Dynamic Solutions Pty Ltd P. O. Box 997154 Maerua Mall Windhoek
4. **Hand delivery at** 122 Robert Mugabe Avenue, Windhoek Central, opposite the National Theatre of Namibia
5. **Telephone:** +264 (0) 61 259 530 / +264 (0) 81 152 4420

Please note that to ensure that your comments, inputs, suggestions, or concerns are included in the documents, it is advisable to submit these in writing using options 1 to 4 or via Short Message Service (SMS) and not via telephonic calls. This is ideal because it is easy and convenient to capture and keep records of written inputs received from the public/I&APs.

5.2.3 Public Consultation/Engagement Meetings

See Annexure 2

5.3 Phase 3A: Baseline Review

The aim of Phase 3A, Baseline Review, was to undertake a review of key baseline socio-economic, physical, bio-physical, legal, planning, and institutional information for the Windhoek Municipal Council that is relevant to the SEA. The review of baseline conditions and the determination of the current status quo is a key component of the SEA.

In addition, Phase 3A has identified the key strategic issues that will inform the assessment phase of the SEA (Phase 3B). The identification of key issues will also be informed by input and comments during the Public Engagement Process (Phase 2). Public meetings form a key component of the engagement process.

The outcome of this activity is the Baseline Status Quo Report (BSQR) summarizing the key findings of the review. The BSQR provides the SEA with information on the following:

- Status of the natural environment, including limiting factors, such as water.
- Identification of major ecosystems and sensitive areas.
- Overview of demographic data, including the current and projected rate of urban and population growth.
- Overview of the various economic sectors and key socio-economic activities, including linkages with the regional and national economy of Namibia.
- The current and proposed land uses.
- Overview of social, institutional, and planning environment.
- Overview of relevant policies and plans (national and local) affecting Windhoek.
- The current and projected rate of consumption of key resources, including water and energy.
- The relevant policies, plans, and programmes have a potential effect on the environment and the future development of Windhoek.

The BSQR provides the SEA with the information and context required to undertake the assessment component of the study (Phase 3B: Assessment). The BSQR will include maps of sensitive areas that can be used during Sub-Phase 3B: Assessment, to assess the potential impact of different development options. A summary of some of the key findings of the BSQR is provided in Annexure 1

5.4 Phase 3B: SEA Assessment

The Assessment Phase of the SEA will be informed and guided by the findings of the Baseline Status Quo Report and the issues identified during Stakeholder Engagement (Phase 2). The ToR notes that the SEA needs to be based on a thorough understanding of the potentially affected environment and social system. Environmental and social key issues should be explored in their present situation and likely future development. The ToR for the Assessment Phase requires:

- Detailed consultation with the relevant departments at the Windhoek Council to identify and discuss current and future proposed development projects and assess the potential impact of these projects on the biophysical, physical and socio-economic environment; This will be informed by the information contained in the BSQR.
- Identify and assess potential cumulative impacts of proposed development activities on Windhoek's environment, natural resources base, and socio-economic conditions taking into account baseline conditions and inventory of planned developments.
- Identify which combination of development options provides Windhoek with the most sustainable growth path over a 10-year planning framework (2020-2030). This in essence is the key objective of the SEA and will involve using the baseline data to assess the potential impact of different development proposals that have been planned and or being considered for the City of Windhoek.

The advantage of undertaking this as part of the SEA process is that it enables the potential cumulative impacts to be identified and assessed compared to individual EIAs where the focus is limited to individual projects.

The SEA will identify and assess:

- A list of potential development options/pathways for the City of Windhoek that is sustainable.
- Identification of the potential cumulative impacts associated with different future development scenarios for the City of Windhoek.

In so doing the SEA Report will provide a detailed description of the range of favourable future development options and associated land uses for the City of Windhoek, including what combination of factors and conditions are likely to be required to achieve them. This, together with the information contained in the BSQR will provide a reference document for planners, decision-makers, and key stakeholders to identify and assess the ability of Windhoek to create a sustainable development path in terms of the City's long-term environmental carrying capacity.

The key deliverables from Phase 3 will include a set of sustainability criteria that will inform the SEA and a Final SEA Report. The findings of the SEA will be presented to and discussed with key stakeholders and the public.

5.5 Phase 4: Implementation Plan

Phase 4 of the SEA involves the preparation of a Strategic Environmental Management Plan (SEMP) that will provide and guide the implementation of the SEA by the Windhoek Council.

The SEMP will be informed by the findings of the SEA and the Stakeholder Engagement Process and will include environmental guidelines (e.g., for rezoning, Township Establishments, developable areas, suitable land uses in various areas, areas for conservation, potential landfill sites for future developments, air quality sensitivity zones, environment-sensitive zones, water sensitivity zones, geographic zones, potential sites for sand mining and borrow pits etc).

The SEMP will also identify:

- Monitoring and Evaluation procedures to monitor and evaluate the effectiveness of enhancement and mitigation measures.
- Instructional requirements are required for the effective implementation of the SEA and the SEMP.
- Capacity-building programmes are required for the effective implementation of the SEA and the SEMP.

The ToR indicates that provision must be made for training and information sessions with officials, including enforcement and the consultant must also provide support to the Windhoek Municipal Council for 6 months after acceptance and implementation of SEA.

The key deliverable from Phase 4 will be **the Strategic Environmental Management Plan (SEMP).**

Annexure 1

Summary: Windhoek SEA Baseline Status Quo Report Key Findings

Summary: Windhoek SEA Baseline Status Quo Report Key Findings

PUBLIC CONSULTATION DISCUSSION GUIDE DOCUMENT
October – November 2022

City of Windhoek
The Gateway to Endless Opportunities

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1. AIM OF PUBLIC MEETING

- Provide an overview of the SEA process, objectives, and approach
- Present and discuss the key findings of the Baseline Status Quo Report (BSQR)
- Present key information gaps
- Identification and discussion of key strategic opportunities and challenges facing Windhoek

2. WHY IS THIS IMPORTANT

- Windhoek is the administrative capital and centre of the country
- Windhoek is the economic centre of Namibia and accounts for close to 35% of Namibia's GDP.
- Windhoek is the academic centre of Namibia (universities and schools).
- Windhoek is the biggest urban centre in Namibia. One out of every six Namibians lives in Windhoek.

What impacts Windhoek impacts Namibia

3. SEA PHASES

- Phase 1: Project Design and Inception Report: Finalised
- Phase 2: Stakeholder Engagement: Ongoing
- Phase 3A: Baseline Status Quo Report: Finalised
- Phase 3B: Assessment and SEA Report: Commenced
- Phase 4: Implementation Plan: To be confirmed

The focus of the meeting is on the results of Phase 3A: Baseline Status Quo Report

4. BASELINE STATUS QUO PHASE-PHASE

To understand the current situation (where things currently stand). This requires the collection and review of key baseline socio-economic, physical, and bio-physical information. In this regard, Sub-Phase 3A included a review of:

- Relevant policies and plans (national and local) affecting the City of Windhoek
- Current status of the natural (bio-physical and physical) environment, including limiting factors, such as water
- Current and projected demographic trends, including projected population growth rates
- Economic sectors and key economic activities
- The current and proposed land uses
- Current municipal services and future demand

4.1 Policy and Planning

National

- Namibia Vision 2030
- Fifth National Development Plan (NDP5)
- Harambee Prosperity Plan (HPP) II (2021-2025)

Local

- Windhoek Transformational Strategic Plan (2017-2022)
- Windhoek Investment Incentives and Promotion Strategy (2019 -2024)
- City of Windhoek Sustainable Urban Transport Master Plan (2013)
- City of Windhoek Integrated Climate Change Strategy and Action Plan (2020-2027)
- City of Windhoek Non-Motorised Transport Strategy (2018)
- City of Windhoek Renewable Energy Policy (2017)

4.2 Biophysical Environment

- Climate
- Geology and soils
- Topography
- Drainage and river courses
- Vegetation, habitat types, and fauna

4.3 Municipal Services and Planning

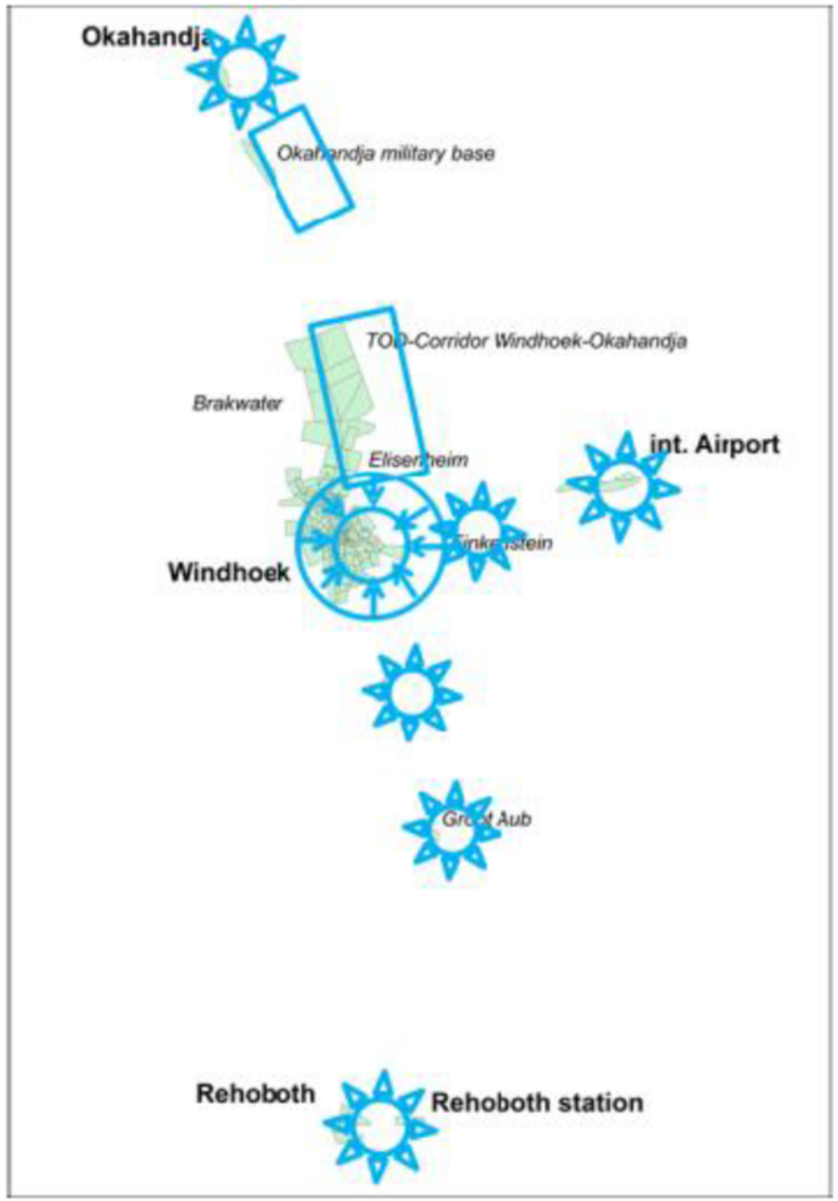
- Water and electricity
- Waste management
- Town planning and land use management
- Wastewater treatment
- Transport planning

4.4 National Issues

- Namibia Vision 2030 People's quality of life, improve the standard of living and quality of life of the people of Namibia: Transport Infrastructure, provide safe and cost-effective transport infrastructure to serve both urban and rural communities. Water, all Namibians enjoy a reliable supply of good water
- Fifth National Development Plan (NDP5): Investment in Water and Energy (renewable) infrastructure, the impact of climate change.
- Harambee Prosperity Plan (HPP) II (2021-2025): Water and Energy Security (increase capacity of water reclamation and desalination).

5. CITY OF WINDHOEK

- Transformational Strategic Plan (2017-2022): "To be a SMART and Caring City by 2022".
- Water and Energy: KPA 23: Renewable Energy Generation, KPA 24: Alternative Water supply,
- Transport: KPA 25: Public Transportation
- Services: KPA 27: Basic Services (Informal Settlements), improving access to services must be safe and environmentally friendly.
- Sustainable Urban Transport Master Plan (SUTMP) (2013). ~ 87% of Windhoek's population is classified as low-income and cannot afford cars. In addition, 52 % of low-income earners also struggle to cover the costs of public transportation.
- SUMPT: In terms of future spatial planning, Polycentric Development Option (Scenario 3) is supported. Involves moderate densification and the major urban development area will be towards Okahandja accommodating almost all population growth.
- Residential erf sizes are to be reduced from 300m2 to 200m2
- Multi-story and mixed-use buildings are encouraged to reduce travel between work and home.



Polycentric Development Option: Scenario 3

5.1 Sustainable Urban Transport Master Plan

The SUTMP compared two scenarios: Business As Usual for the year 2032 (BAU 2032) vs Sustainable Transport for the year 2032 (ST 2032). The Sustainable Transport Scenario will have a positive impact on economic growth, public infrastructure, poverty, health, and the environment.

- Economic growth between 2012-2032 is expected to be 5-6% higher with 7-8% higher employment
- Poor households will save more than N$ 2 000 annually, have better access to public transport, and reduced travel times.
- Private car owners will benefit from reduced congestion and travel times.
- Accident rates will be reduced (motorists, pedestrians, and cyclists)
- Reduced emissions and associated health and climate change benefits.

5.2 Integrated Climate Change Strategy and Action Plan

Focus Area A1: Water Security and Efficiency

- Upgrading the Gammams Waste Treatment Plant (timeframe 2019-2023).
- Development of Windhoek Integrated Water and Wastewater Management Plan (timeframe 2019-2025).
- Implement Council's Water Demand Management Strategy (timeframe 2019-2023).
- Expanding the capacity of Windhoek Aquifer (timeframe 2019-2025).

Focus Area A3: The Built Environment (Human Settlements)

- Provide and maintain general basic services for informal settlements (timeframe 2019-2025).
- Implement an Upgrading and Development Strategy for informal settlements (timeframe 2019-2025).
- Reduce plot sizes from 300m2 to 200m2 to accommodate more people.

Focus Area B1: Sustainable Energy and Low Carbon Development

- Provide and maintain general basic services for informal settlements (timeframe 2019-2025)
- Develop renewable energy plant (timeframe 2019-2025)
- Investigate waste to the energy power plant (timeframe 2019-2025)
- Amend building regulations to include energy efficiency requirements (timeframe 2019-2025)

6. CURRENT STATUS-KEY STATISTICS

6.1 Population

- 495 000 in 2022, increasing to 737 000 in 2032 (33% increase)(SUTMP)
- 1996 Windhoek Structure Plan estimated that Windhoek Basin could accommodate approximately 400 000 people. Total reached in 2018
- Population growth is largely driven by in-migration. This will place strain on resources and infrastructure, specifically bulk infrastructure (water, sanitation, electricity), and services (healthcare, education, and policing).
- Increase demand for accommodation, especially low-income accommodation. 42.3% of structures in were impoverished dwellings (shacks) in 2016.
- Impact on enforcement of local policies and by-laws, especially in case of informal and backyard dwellings, illegal connections, and urban sprawl.
- Place pressure on public transport.
- Potential to impact social cohesion and result in friction, discrimination, and violence between different

6.2 Economy

- 31.3 % of Namibia's GDP, more than twice the amount of the next most important region, Erongo with 12.9% (2016).
- Centre for commerce and business (banks, head offices, etc.)
- Despite the importance of Windhoek to the National economy, 24.9% of the urban population was unemployed in 2016 and the number of households residing in informal structures (shacks) increased from 26 512 in 2011 to 50 429 in 2016 (47% increase over 5 years).

6.3 Water

- The average rainfall for Windhoek is ~ 350mm per annum, average annual evaporation is ~ 3 400 mm per annum.
- The nearest perennial water sources are the Kunene and Okavango Rivers located in excess of 700 km to the north.
- Water consumption increased from 22.6 million m^3/annum in 2007 compared to 30 million m^3/annum in 2015 (25%). The population increased by ~ 22% over the same period.
- The projected population of 737 000 in 2032 would result in a ~ 50% increase in water consumption in 2015. However, supply options are limited.
- NamWater is currently investigating two large-scale projects aimed at ensuring a sustainable water supply to Windhoek, namely: Desalination and transfer of water from coast to central region, and Okavango River abstraction and link to Eastern National Water Carrier.
- Windhoek's water supply is also vulnerable to climate change (hotter and increased drought events).

6.4 Future Development - Where?

- The most suitable area for future expansion towards the north is along Windhoek-Okahandja Development Corridor.
- The Windhoek Urban Structure Plan (in progress), identifies two infrastructure-related development scenarios for the M, namely: Development of areas linked to and or that can be linked to existing municipal infrastructure networks without the need for significant upgrades, Development of areas that cannot be linked to existing municipal infrastructure networks.
- The development of areas linked to and or that can be linked to existing municipal infrastructure networks without the need for significant upgrades is aligned with and supports Scenario C: Polycentric Development (SUTMP).

7.CONCLUDING OBSERVATIONS

- Windhoek is key to the economic well-being of Namibia. Ensuring Windhoek works is therefore critical to Namibia.
- Water and energy security represent key challenges, together with the provision of housing and basic services (water, sanitation, transport) for a growing number of low-income households. Approximately 30% of the population of Windhoek currently resides in informal structures (shacks).
- Climate change poses threat to Windhoek's future water security.
- Future development of Windhoek must consider both where to expand (spatially) and how (densification, public transport, energy, and water efficiency etc.)

8. DATA GAPS

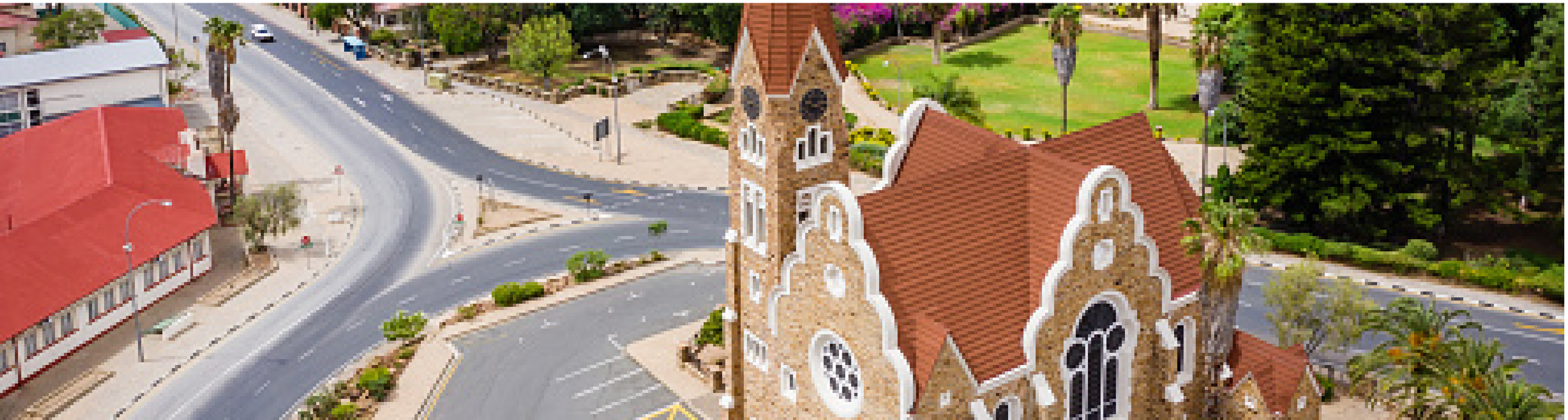
- Current and future status of water security and demand in the extended boundaries
- Current and future status of power security and demand in the extended boundaries
- Current and future status of commodities exploration and exploitation in the extended boundaries
- Current and future status of agricultural activities and production within the city's extended boundaries
- Cumulative (projected) impact of proposed developments on climate change and its effect.

9. KEY QUESTIONS TO GUIDE DISCUSSION

- What makes Windhoek a special place to live in?
- What are the key challenges facing the Windhoek Municipal Council over the next ten (10) years?
- What opportunities can the Windhoek Municipal Council explore over the next ten (10) years?
- What would you do to make Windhoek a better city?

10. WAY FORWARD

- Filling of information gaps and maps: November 2022
- Prepare Draft SEA Report: December 2022/January 2023
- Workshop Draft SEA: January 2023
- Finalise SEA: February/March 2023



Annexure 2

Public Consultation/Engagement Schedule

PUBLIC MEETING DATES, TIME & VENUE

DATE	TIME	VENUE	MEETING FORMAT	TARGET COMMUNITIES
Monday, 31 October 2022	**10h00**	**NIPAM**	**Presentation**	**Auasblick, Olympia, Academia, Prosperita, Cimbebasia, Kleine Kuppe**
Monday, 31 October 2022	**18h45**	**Namibia Scientific Society Hall**	**Presentation**	**Windhoek Central, Klein Windhoek, Erospark**
Tuesday, 1 November 2022	**10h00 & 18h15 (2-slots)**	**Maxuilili Community Hall**	**Presentation**	**Okuryangava, Lafrenz Hakahana**
Wednesday, 2 November 2022	**18h00**	**Khomasdal Community Hall**	**Presentation**	**Khomasdal, Otjomuise**
Thursday, 3 November 2022	**18h00**	**Hakahana Community Hall**	**Presentation**	**Hakahana, Havana, Goreangab**
Friday, 4 November 2022	**10h00 & 14h30 (2-slots)**	**Kommando Hall (Katutura Central Windhoek)**	**Presentation**	**Katutura, Wanaheda, Goreangab**
Saturday, 5 November 2022	**15h00**	**Windhoek Rural Constituency Office (Groot Aub Settlement)**	**Presentation**	**Groot Aub, Omeya**
Saturday, 5 November 2022	**10h00**	**Mix Soccer Field (Mix Settlement)**	**Presentation**	**Mix Settlement**
Monday, 7 November 2022	**18h00**	**The Hills**	**Presentation**	**Brakwater, Elisenheim**
Tuesday, 8 November 2022	**18h00**	**Wanderers Sport Club**	**Presentation**	**Rocky Crest, Dorado Park, Hochland Park, Pioniers Park**
Thursday, 10 November 2022	**10h00 – 16h00**	**NIPAM**	**Workshop**	**All Interested & Affected Parties**

CONTACT DETAILS

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