

**DRAFT ENVIRONMENTAL SCOPING  
REPORT FOR THE PROPOSED  
NYIME SAFARI LODGES  
(ta) **BUFFALO LODGE**  
Part of Bwabwata National Park  
(in Buffalo Core Area).**

*REF:010724-2*



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## **LIST OF ABBREVIATIONS**

**NBG:** Namibia Botanical Garden

**CBD:** Central Business District

**DEA:** Department of Environmental Affairs

**EAP:** Environmental Assessment Practitioner **ECA:** Environmental Conservation Act

**EIA:** Environmental Impact Assessment

**IEMA:** Institute of Environmental Management and Assessment

**EIAR:** Environmental Impacts Assessment Report

**DWA:** Department of Water and Affairs

**EMP:** Environmental Management Plan

**I&AP:** Interested and Affected Party

**IDP :** Integrated Development Plan

**NSBA:** National Spatial Biodiversity Assessment

**EMA :** Environmental Management Act

**POS:** Plan of Study

**NHC:** Namibia Heritage Council

**SR:** Scoping Report

**SDF:** Spatial Development Framework

**UNCED :** United Nations Conference on Environment and Development

## **LIST OF ANNEXURES**

Signed Agreement between MEFT and Nyime Safari Lodges;

Agreed/Proposed Benefit Plan to Community

- (a) Social Corporate development
- (b) Proposed employment plan
- (c) Concession fees to community per annum

## GLOSSARY OF TERMS

**Alien Species:** A plant or animal species introduced from elsewhere: neither endemic nor indigenous.

**Applicant:** Any person who applies for an authorisation to undertake an activity or to cause such activity to be undertaken as contemplated in the Environmental Management Act (Act No. 7 of 2007).

**Biodiversity:** The variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are apart.

**Conservation Ordinance 4 of 1974 :** This Act provides for control over the utilization of the natural resources of the Republic in order to promote the conservation of the.....

**Ecology:** The study of the inter relationships between organisms and their environments.

**Environment:** All physical, chemical and biological factors and conditions that influence an object and/or organism. Also defined as the surroundings within which humans exist and are made up of the land, water, atmosphere, plant and animal life (micro and macro), interrelationship between the factors and the physical or chemical conditions that influence human health and well-being.

**Environmental Impact Assessment:** Assessment of the effects of a development on the environment.

**Environmental Management Plan:** A legally binding working document, which stipulates environmental and socio-economic mitigation measures which must be implemented by several responsible parties throughout the duration of the proposed project.

**Environmental Management Act (EMA), (Act No. 7 of 2007):** EMA provides for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co- operative governance and procedures for co-ordinating environmental functions exercised by organs of state; and to provide for matters connected therewith.

**National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004):** The purpose of the Act is "To reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable

economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incident thereto”.

**National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004):** The purpose of the Biodiversity Act is to provide for the management and conservation of South Africa’s biodiversity within the framework of the NEMA and the protection of species and ecosystems that warrant national protection. As part of its implementation strategy, the National Spatial Biodiversity Assessment was developed.

**National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003):** The purpose of this Act is to provide the protection, conservation and management of ecologically viable areas representative of South Africa’s biological diversity and its natural landscapes.

**National Heritage Council Act, (Act No. )::** The National Heritage Resources Act legislates the necessity for cultural and heritage impact assessment in areas earmarked for development, which exceed 0.5 ha. The Act makes provision for the potential destruction to existing sites, pending the archaeologist’s recommendations through permitting procedures.

**National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998):** The purpose of this Act is to prevent and combat veld, forest and mountain fires throughout the Republic. Furthermore the Act provides for a variety of institutions, methods and practices for achieving the prevention of fires.

**National Water Act, 1998 (Act No. 36 of 1998):** The purpose of this Act is to ensure that the nation’s water resources are protected, used, developed, conserved, managed and controlled.

**Open Space:** Areas free of building that provide ecological, socio-economic and place- making functions at all scales of the metropolitan area.

**Study Area:** Refers to the entire study area compassing the total area of the land parcels as indicated on the study area map.

**Sustainable Development:** Development that has integrated social, economic an environmental factors into planning, implementation and decision making, so as to ensur that it serves present and future generations.

**Water Services Act, 1997 (Act No. 108 of 1997):** The purpose of this Act is to ensure the regulation of national standards and measures to conserve water.



# 1 INTRODUCTION

## 1.1 Background

Nyime Safari Lodges is planning the development of a lodge to be known as the **Buffalo Lodge** that is situated in Bwabwata National Park, within the Buffalo Core Area (**Refer to Annexure A: Figure 1 - Locality Map and Figure 2 - Aerial Map**). The area earmarked for the Lodge and Campsite has limited development capacity right to ensure maximum preservation of Natural Environment, the development is to blend in with the Local environment.



**Figure 1-1:** Project Area

The study area for the proposed Tourism development/the area to be transformed is a Brownfield, and the proposed development is a listed activity that requires for a EIA in terms of the EMA EIA Regulations. This report represents the Draft Scoping Report for the proposed development.

The study area falls within the area of jurisdiction of the Ministry of Environment, Forestry and Tourism. The primary goal of the application is to establish a mixed-Tourism facilities that will complement the rising need for tourism accommodation in the area and Namibia at large, which will be developed in the north-eastern corner of the country and the study area, which will accommodate the proposed Mixed-Tourism facilities development).

The land-uses for the proposed development will comprise of a reception office, parking area, camping sites and suites. It will also incorporate an on-site sewer treatment facility, which will

be installed in modules and which will eventually have the capacity to cater in the sewage requirements for the proposed Tourism facilities development.

In terms of the application is for the establishment of a Mixed-Use Lodge with the following proposed land uses:

- Reception Area,
- Parking area
- Offices, and
- back of house.
- Rooms/suites
- Camping sites

The lodge will be open all year, with peak seasons in March, July, and October. The structures will be designed and built to blend in with the surrounding landscape. Thatching grass, boulders, and wood will be the primary building materials. The lodge and associated facilities are planned to be completed in six months. Except for the new underground drainage lines and access to the wastewater tanks, there will be very little earthwork.

As mentioned this report represents the Scoping Report that is prepared for the proposed development and all registered interested and affected parties are invited to peruse the report and to supply comments regarding the report and the proposed development.

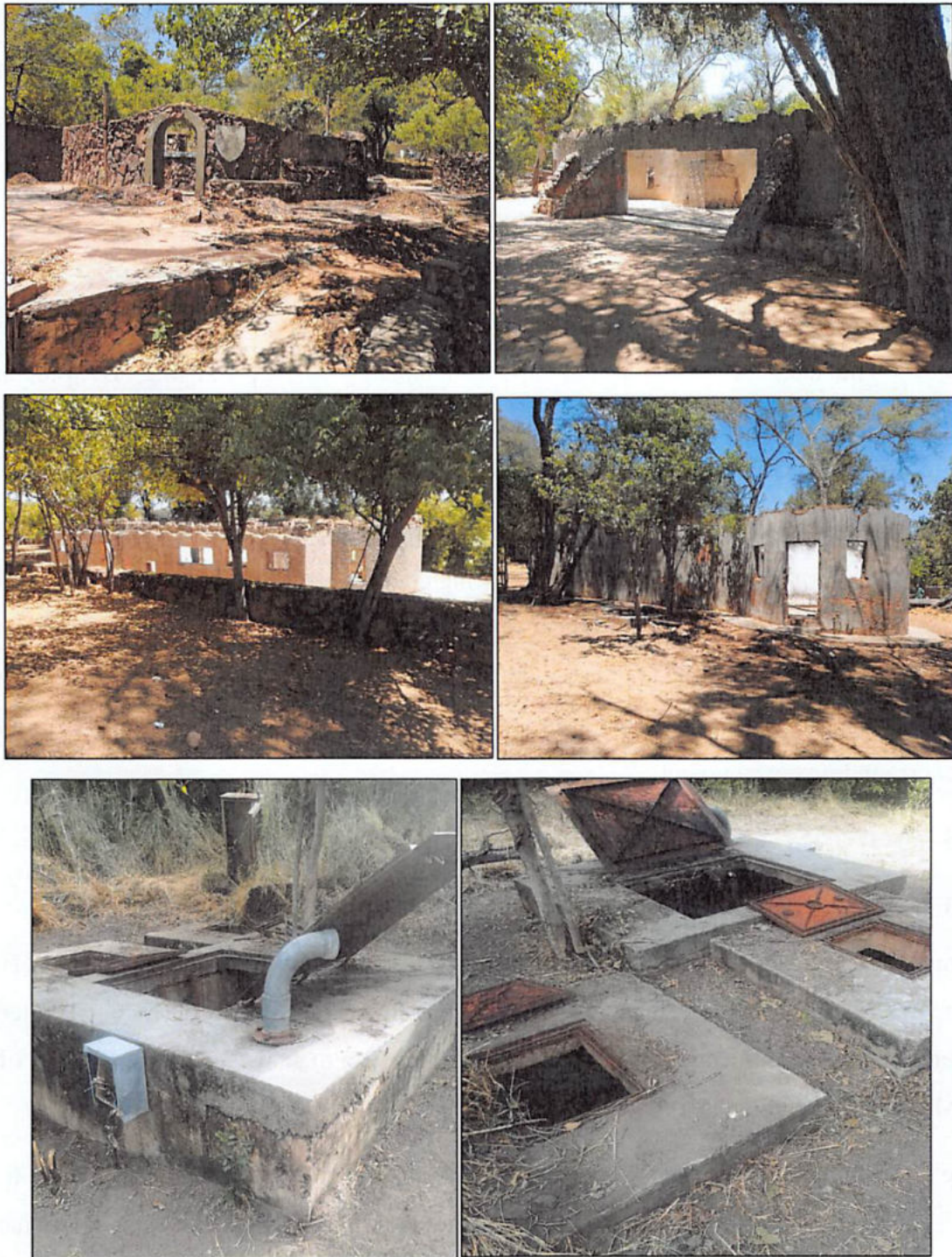
Although no specialist reports were included as part of this Scoping Report, the information contained in some specialist reports that were compiled during the previous Scoping and EIA process, were used to identify the issues and additional specialist studies required to address/mitigate issues identified during the Environmental Impact Assessment (EIA) phase.

This document serves to:

- Provide a description of the proposed activity.
- Provide possible alternatives to the proposed activity.
- Provide a background study into the environmental setting of the proposed activity.
- Identify possible impacts of the proposed activity – positive and/or negative – upon:
  - The natural environment, and
  - The social environment.
- Identify issues/concerns/alternatives through a Public Participation Process.
- Provide a Plan of Study for EIA.

## 1.2 Important Point to Note

The proposed project, to be undertaken within a brownfield site previously utilized as a military barrack, presents a unique environmental context characterized by historical environmental disturbance. The site's past land use, coupled with the presence of existing infrastructure such as old buildings and a sewer system (see photos below), inherently suggests a level of environmental impact and alteration.



**Image 1-1:** Existing Infrastructure at the Project Site

Environmental assessments have been diligently conducted to evaluate the potential impacts of the proposed project on the surrounding environment. These assessments include this Environmental Scoping Report and an Environmental Management Plan, which have been compiled in accordance with established regulatory guidelines and best practices.

The Environmental Scoping Report provides a detailed overview of the site's existing environmental and socio-economic conditions, project description and alternatives that have been considered for the proposed project. Additionally, the Environmental Management Plan outlines appropriate mitigation measures and strategies to address any identified environmental concerns. The Environmental Management Plan delineates procedures for monitoring, managing, and mitigating environmental impacts throughout the project's lifecycle.

Given the extensive documentation and thorough analysis provided within the Environmental Scoping Report and Environmental Management Plan, the Consultant is of the professional opinion that these assessments sufficiently address the environmental planning needs of the project. The site's status as a brownfield, coupled with the existing assessments and management strategies in place, provides a robust framework for ensuring the project's compliance with environmental regulations and sustainable development principles.

Therefore, it is proposed that the project be exempted from a detailed Environmental Impact Assessment (EIA) for this project, as the existing environmental assessments and management plans adequately fulfill the requirements for environmental planning and management. The proponent remains committed to the ongoing monitoring and implementation of environmental measures to ensure the project's environmental sustainability and minimize adverse impacts on the surrounding environment.

### **1.3 Activities Applied for in Term of the EMA**

#### **1.3.1 Terms of Reference**

Nyime Safaris Lodges appointed Albertina Simon to do an Environmental Assessment (EA) in support of their application for an Environmental Clearance Certificate (ECC). The terms of reference for this application were taken from the Environmental Management Act, 7 of 2007 (EMA) and its regulations (GN 29 of 2012).

The EIA Regulations list the following activities that may not be undertaken without an ECC:

- The construction of resorts, lodges, hotels, or other tourism and hospitality facilities
- Temporary storage of waste

- Abstraction of ground water for commercial purposes
- Construction of domestic wastewater treatment plants and related pipeline systems

In line with the requirements of the Environmental Management Act the Terms of Reference, include, but are not limited to the following:

- Determine if the proposed site is a suitable site for the proposed development from an environmental point of view.
- Prepare such an Environmental Scoping Report, taking into consideration the biophysical and socio-economic environment.
- Assess the attitude of the surrounding lodges to such a development.

This report presents the results of the scoping process. It includes the Curriculum Vitae of the Environmental Assessment Practitioner (EAP) in Appendix I, a survey of the legal and policy framework applicable to the project, a description of the project, a description of the receiving environment, a description of the public participation process, and an impact assessment.

The scoping report is limited to an application for ECC and excludes any additional permits that might be required for the operation of a lodge.

### **1.3.2 Environmental Assessment Methodology**

MEFT is the relevant competent authority for the construction and operation of safari lodges. The first step in the EIA process was to submit an application for ECC to MEFT on 12 August 2022, and they requested a scoping report. The screening notice from MEFT is shown in Appendix III.

**Nyime Safari Lodges cc therefore appointed Advance Environmental Agency, to compile the Environmental Assessment (EA) for the proposed development. This report represents the Draft Scoping Report (DSR) for the application.**

A site visit was conducted to examine the nature of the habitats within and adjacent to the project area, and also to observe ecological factors that might affect the presence of plants and animals. Visible signs of the presence of vertebrate species were recorded, such as spoor, dung, holes/burrows and pathways. Trees, shrubs were identified on site as far as possible, and notes were made of the vegetation structure and the potential role that vegetation could play in sustaining animal taxa. Habitats are described in terms of their functionality for fauna, as well as the plant communities observed and/or likely to occur. The descriptions are based mainly on topography, substrate, floristics and vegetation structure.

The first round of public consultation commenced with the potential I & APs, newspaper advertisements and a site notice. Comments and information received during this process will be incorporate in the EMP where applicable. The process is described in Section 4 and original documents provided in Appendix III. Information gathered during the site visit, from a literature survey, meetings with the proponent and the public consultation process will be used to do an Impact Assessment. It is presented in Section 6.

The results of the above steps are given in this scoping report. The final step was to draft an EMP, using the information in the scoping report and its appendices to suggest measures for the prevention, mitigation and/or management of any identified impacts. The EMP is available as a separate document.

After we received the public and organs of the Government' comments regarding the DSR, ECA will proceed with the compilation of the Final Scoping Report (FSR) and the Plan of Study for EIA. The FSR will be made available to the public and relevant organs of state for a period of 30 days. The comments regarding the DSR must be submitted to DEAF for consideration when they evaluate the FSR.

DEAF will approve the FSR and Plan of Study for EIA if they are satisfied with the contents thereof and in the approval DEAF will allow ECA to proceed with the EIA process. The EIA reports to be compiled will also consist of draft and final reports that will be made available for public and government comments.

### **1.3.3 The Lodge Planning Process**

The proposed development of Buffalo Lodge is a listed activity under the Environmental Management Act (EMA), and therefore is subject to an EIA.

### **1.3.4 Environmental Assessment Practitioner (EAP)**

The Environmental Regulations require that relevant details of the Environmental Assessment Practitioner as well as the expertise of the EAP to compile a Scoping Report must be included as part of the Scoping Report. **Attached as Annexure B** is a copy of the CV of Albertina Simon from Environmental Consultancy Agency. In summary details of the EAP are indicated below:

- **Name:** Albertina Simon
- **Company:** Advance Environmental Agency
- **Qualifications:** Bsc Environmental Science
- **Environmental Planning and Management:**

- **Compilation of Environmental Impact Assessment:**
- **Environmental compliance and Environmental audit**

## **2 SCOPE OF WORK AND APPROACH TO THE STUDY**

### **2.1 Scope of work**

The scope of work will include the necessary investigations, to assess the suitability of the study area for the proposed activities and alternatives. The scoping exercise will consider the environmental aspects, in keeping with the terms of reference, and identify the possible negative and positive impacts including cumulative impacts of the proposed development and alternatives on the study area and its surroundings.

Reference will be made to specialist studies that may be necessary to investigate the environmental issues and sensitivities on site, identified during the scoping process in order to identify specific impacts and to facilitate the design and construction of an environmentally acceptable facility in the Plan of Study for EIA in Annexure C of this report. Mitigation measures to minimize the negative impacts and maximize the positive impacts will be fully discussed in the Environmental Impact Assessment Report (if deemed necessary) and the Environmental Management Plan (EMP) that will be included in the EIA.

A new application form for environmental authorization was submitted to LDEDET on 9 November 2015 and a receipt of acknowledgement was received on 20 November 2015.

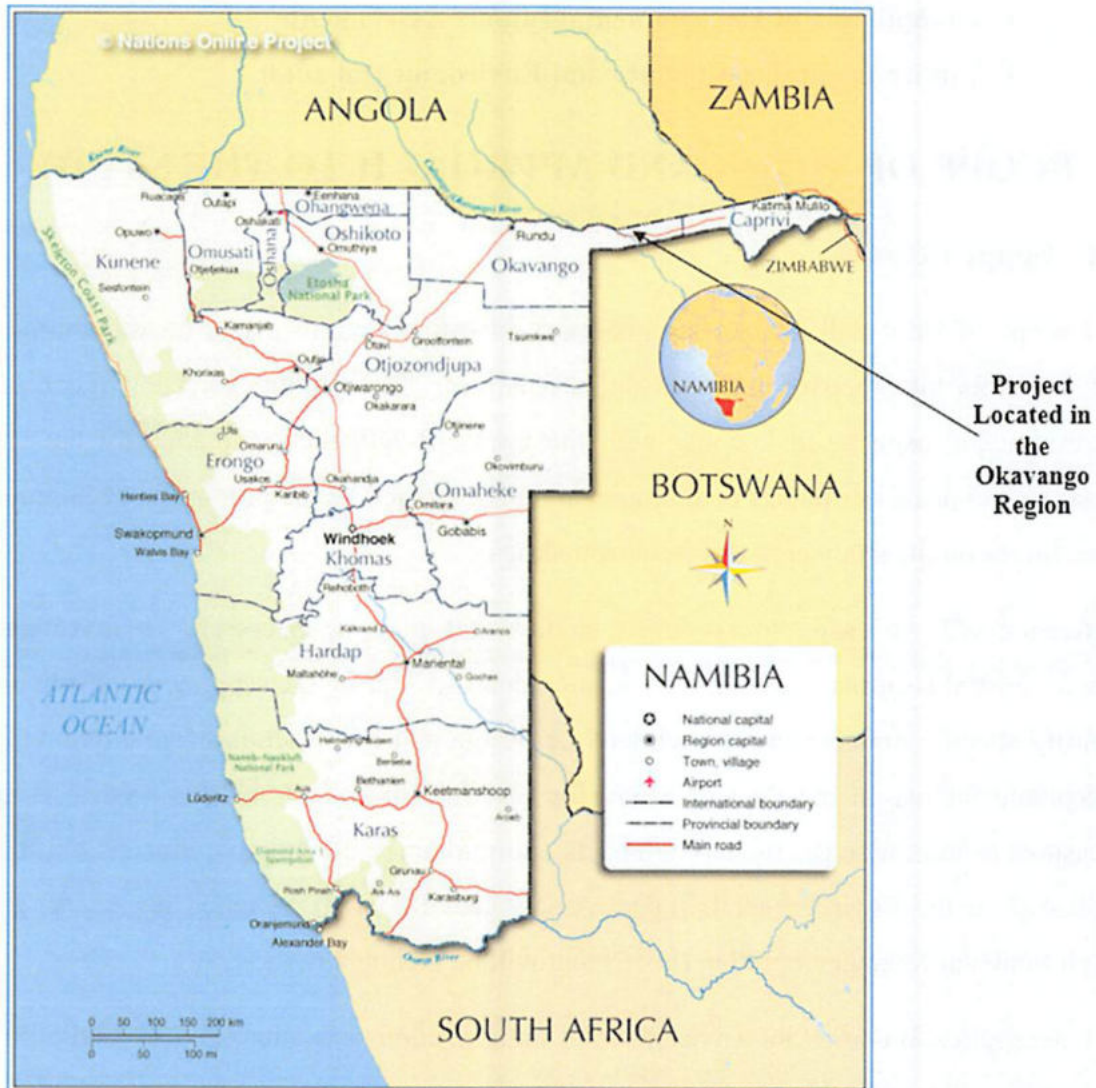
### **2.2 Approach to the Environmental Assessment Study**

An investigative approach was followed and the relevant biophysical and socio-economic environmental aspects were assessed. Legislation and guidelines applicable to the application were considered in the preparation of the report. All available material and literature were collected and used for the purpose of this study and it was further supplemented with discussion with park management, local authorities, other interested and affected parties, as well as by site surveys and photographic recording

## **3 LOCALITY AND PROJECT DESCRIPTION**

### **3.1.1 Locality**

The proposed lodge is within Namibia's Okavango Region (see map below for Namibia's Regions).



**Figure 3-1:** The 14 Regions of Namibia including the Okavango Region

Namibia's Okavango Region, situated in the northeastern part of the country, holds immense significance for both the local communities and the national economy. Due to its comparatively elevated rainfall levels in contrast to many other regions in Namibia, the region has high potential for agriculture, allowing for the cultivation of diverse crops. Additionally, the conditions are favourable for organised forestry and agro-forestry, consequently encouraging the development of furniture production and related industries.

The region's unique biodiversity and ecological richness also contribute significantly to Namibia's tourism sector, attracting visitors seeking the pristine wilderness along the Okavango River. This influx of tourism serves as a vital economic driver, providing income opportunities for local communities through hospitality services, guided tours, and traditional crafts. Moreover, the Okavango Region plays a key role in national conservation efforts, enhancing the overall appeal of Namibia as a sustainable and eco-friendly tourism destination. The



conservation initiatives not only preserve the country's natural heritage but also support a growing sector that contributes to Namibia's broader economic diversification.

The Concession Area is within the Bwabwata National Park which extend from the Kavango River in the west to the Kwando River in the east. Bwabwata is bordered to the north by Angola and the south by Botswana.

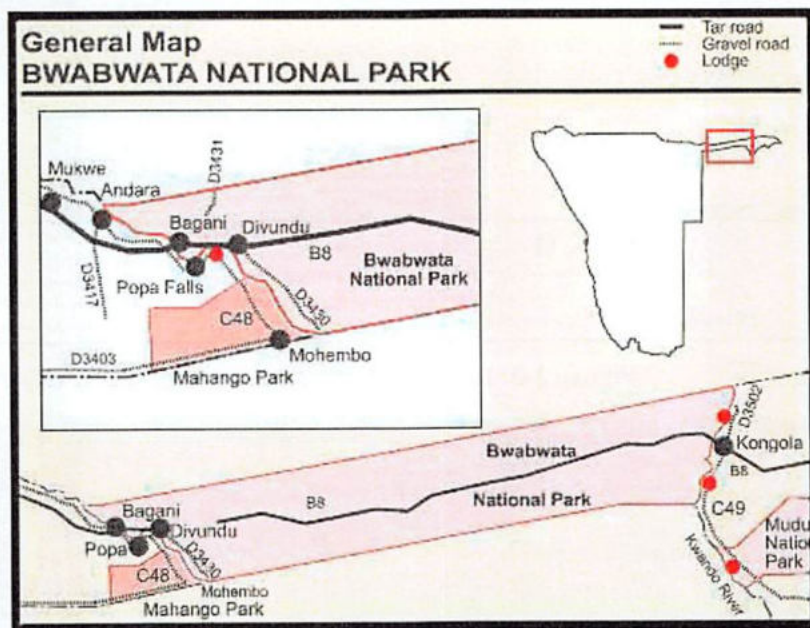


Figure 3-2: Bwabwata National Park

Precisely, the proposed lodge in the Kavango south Concession Area is located in the Kavango Riverine Forest demarcated as South special value zone. The Concession is located on or near the disturbed site of the Military ruins and old MEFT Buffalo tourism reception and management station. The sites are located as follows, old military ruins is 900 m and the old MEFT reception and management station is 1.7 km from the new MEFT Buffalo Station as illustrated in the maps below. There is no indicative area size given in the contract, however, the contract has development limits set out which guides the development capacity within the area. The locality map below shows the location of the lodge.

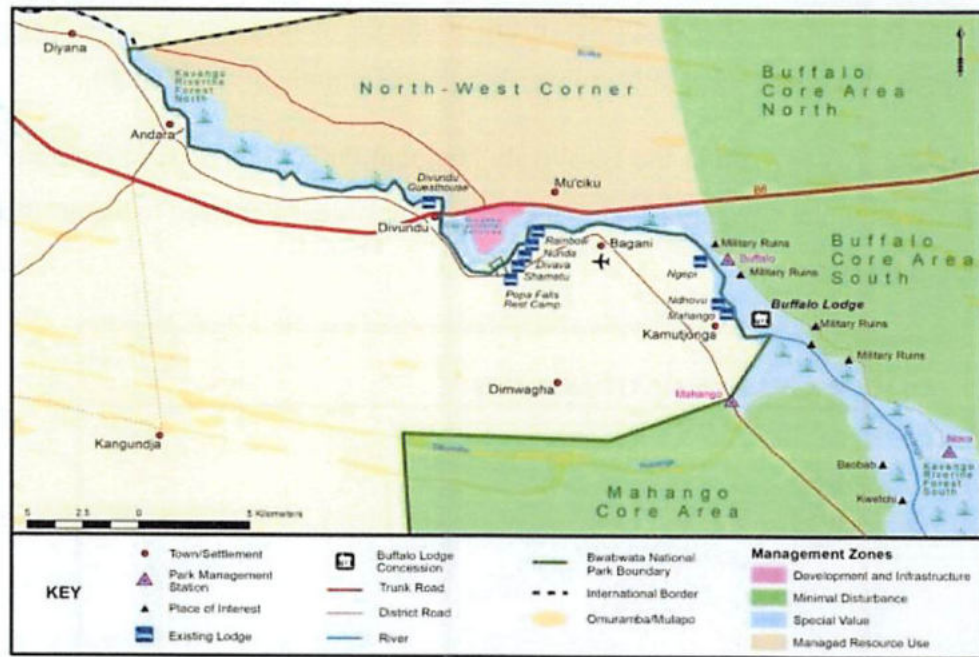


Figure 3-3: Locality and Land-use Map 1



Figure 3-4: Locality and Land-use Map 2

## 3.2 Project Description

### 3.2.1 Project Overview

The proposed development, Bwabwata National Park Buffalo Lodge, envisions the establishment of a Mixed-Use Lodge in the north-eastern corner of Namibia, falling under the jurisdiction of the Ministry of Environment, Forestry, and Tourism. The primary objective is

to address the escalating demand for tourism accommodation in the region and contribute to Namibia's tourism sector. The project will encompass various land uses, including a reception office, parking area, camping sites, and suites, along with on-site sewer treatment facilities for sustainable waste management. The lodge will be open all year, with peak seasons in March, July, and October.

The components of the project include:

- i. Planning and design of project work
- ii. Tendering and awarding of contracts to contractors who are to manage the project work
- iii. Construction work encompassing activities such as:
  - Site clearing for construction activities.
  - Construction of the lodge and its associated infrastructure as per approved drawings and specifications.
- iv. Operation of the lodge
- v. Closure of the lodge – although it is not anticipated, for planning and sustainability purposes a post operational phase for the lodge has been considered.

The above can be summarized into the phases shown in the diagram below.



**Figure 3-5:** Summary of Project Phases

### 3.2.2 Objectives of the Project

The project endeavors to position Bwabwata National Park Buffalo Lodge as a sustainable and responsible tourism destination, contributing positively to the local community, the environment, and the overall tourism landscape in Namibia. Therefore, the specific objectives of the project include to:

- **Tourism Development** - address the demand for tourism accommodation in the region and contribute to Namibia's tourism sector growth by providing high-quality accommodation in Bwabwata National Park.
- **Economic Impact** - Stimulate local and regional economies through job creation, support for local businesses, and overall economic growth.
- **Conservation and Awareness** - Promote wildlife conservation and environmental stewardship through guided excursions, educating guests on the park's biodiversity.
- **Luxury Hospitality** - Establish a luxury lodge with unparalleled amenities, personalized services, and exclusive chalet features to set new hospitality standards.
- **Community Engagement** - Actively engage with local communities, ensuring their participation, providing skill development, and fostering employment opportunities.
- **Sustainable Tourism Practices** - Champion sustainable tourism by incorporating eco-friendly initiatives, resource-efficient technologies, and water conservation measures in lodge operations.

These objectives collectively aim to position Bwabwata National Park Buffalo Lodge as a sustainable and responsible tourism destination, contributing positively to the local community, the environment, and the overall tourism landscape in Namibia.

### **3.2.3 Pre-operational Phase**

This includes the following:

- Initial planning and feasibility studies
- Land acquisition and registration.
- Preparation of site plans/drawings and application of the appropriate approvals from the relevant regulatory authorities.
- Preliminary site investigations e.g. geotechnical assessments, topographical surveys and environmental impact assessments to ensure compliance with regulations.
- Securing relevant permits and engaging with stakeholders for input and support.
- Construction of the lodge and associated infrastructure.

The structures will be designed and built to blend in with the surrounding landscape. Thatching grass, boulders, and wood will be the primary building materials. The lodge and associated facilities are planned to be completed in six months. Except for the new underground drainage lines and access to the wastewater tanks, there will be very little earthwork. Construction activities that will include the following:

**1. Site Preparation:**

- Clearing and leveling the construction site.
- Establishing temporary facilities for construction teams.

**2. Material Procurement:**

- Sourcing construction materials locally or transporting them to the site.

**3. Construction Workers Housing:**

- Providing temporary housing for construction workers.

**4. Infrastructure Development:**

- Building reception areas, parking facilities, and accommodations.
- Installing utilities such as water, electricity, and sewage systems.

**5. Stakeholder/Community Engagement:**

- Communicating with stakeholders/local communities to address concerns and ensure collaboration.

**6. Road and Access Development:**

- Developing roads and access points to the lodge site.

**7. Waste Management Planning:**

- Implementing waste management plans to handle construction-related debris.

**8. Security Measures:**

- Implementing security measures to protect construction materials and equipment.

**9. Quality Control Inspections:**

- Conducting regular inspections to ensure construction meets quality standards.

**10. Safety Measures:**

- Implementing safety protocols to ensure the well-being of construction workers.

**11. Signage and Wayfinding:**

- Installing temporary signage to guide construction teams and visitors.

**12. Landscaping Considerations:**

- Planning and implementing landscaping measures to minimize disruption.

**13. Local Workforce Engagement:**

- Employing local workers for construction jobs to enhance community involvement.

**14. Environmental Mitigation Measures:**

- Implementing measures to minimize environmental impact during construction.
- Adhering to environmental management plans and regulations.

**15. Periodic Reporting:**

- Providing periodic progress reports to stakeholders and authorities.

**3.2.4 Pre-operational Phase**

The operational phase of the project will encompass:

**1. Guest Welcoming:**

- Greeting and assisting guests upon arrival.

**2. Check-in and Check-out Procedures:**

- Managing guest check-in and check-out processes.

**3. Luxury Chalet Services:**

- Providing services such as private kitchens, dedicated chefs, personalized butler, and cleaning staff.

**4. Guided Excursions:**

- Organizing and conducting guided excursions within Bwabwata National Park.

**5. Maintenance and Upkeep:**

- Conducting routine maintenance and upkeep of lodge facilities.

**6. Waste Management:**

- Managing waste through adherence to sustainable waste management practices.

**7. Customer Service:**

- Ensuring high-quality customer service for guest satisfaction.

**8. Security Measures:**

- Maintaining security protocols to ensure the safety of guests and staff.

**9. Continuous Environmental Monitoring:**

- Monitoring environmental impacts and implementing measures for ongoing conservation.

**10. Community Engagement:**

- Engaging with local communities for ongoing collaboration and support.

**11. Culinary and Dining Services:**

- Providing culinary services, including meals and dining experiences.

**12. Splash Pool Maintenance:**

- Maintaining and ensuring the proper functioning of private splash pools.

**13. Feedback Collection:**

- Collecting feedback from guests for continuous improvement.

**14. Marketing and Promotion:**

- Ongoing marketing and promotional activities to attract guests.

**15. Training and Development:**

- Providing training and development opportunities for lodge staff.

**16. Cultural Integration:**

- Showcasing and integrating local culture, traditions, and heritage.

**17. Emergency Preparedness:**

- Implementing emergency response plans and conducting regular drills.

**18. Biodiversity Conservation Initiatives:**

- Supporting and participating in biodiversity conservation initiatives.

**19. Sustainability Practices:**

- Continuing sustainable tourism practices, including resource efficiency and conservation measures.

**20. Regular Reporting:**

- Providing regular reports on operational efficiency and guest satisfaction.

### **3.2.5 Post-operational Phase**

While the post-operational phase is not anticipated, prudent planning aligns with the precautionary principle to safeguard against unforeseen circumstances. The overarching goal is to ensure that the site, following the cessation of lodge operations, maintains environmental and economic benefits. Two primary scenarios have been meticulously planned for this phase:

- 1. Transition to a Third Party/Local Community Operation:** In the event of the lodge operations ceasing, the transition plan involves the handover of the operation to a third party or the local community. This proactive approach aims to sustain economic activities, employment opportunities, and local empowerment. Engaging the local community in lodge management not only preserves livelihoods but also fosters a sense of ownership and responsibility, aligning with sustainable and inclusive development practices.
- 2. Infrastructure Dismantling and Site Rehabilitation:** As a precautionary measure, the alternative plan entails dismantling all lodge infrastructure and initiating site rehabilitation or revegetation. This process seeks to return the site as closely as possible to its pre-disturbance state, mitigating any potential environmental impacts. Rehabilitation efforts may include replanting native vegetation, restoring natural habitats, and implementing erosion control measures. The objective is to leave the land

in a state that supports local ecosystems and biodiversity, promoting long-term environmental sustainability.

The following include issues to be considered during this phase:

- **Environmental Stewardship and Legacy:** Throughout these planning measures, a commitment to environmental stewardship remains paramount. The lodge acknowledges its responsibility to minimize any ecological footprint and ensure that the legacy of the project aligns with principles of conservation and sustainable development. This includes the adoption of eco-friendly construction materials, sustainable energy practices, and ongoing monitoring of environmental impacts during the operational phase.
- **Community Involvement and Partnerships:** The lodge recognizes the vital role of local communities in preserving the natural and cultural heritage of the region. Engaging in ongoing partnerships, the project collaborates with communities for mutual benefit. In the event of a transition or site rehabilitation, active involvement and cooperation with the local community are integral, ensuring a seamless and sustainable process that aligns with the community's aspirations.
- **Continuous Monitoring and Adaptability:** The post-operational phase plans are dynamic and subject to continuous monitoring and adaptation based on evolving circumstances. Regular assessments of environmental conditions, community needs, and economic factors will inform decision-making to ensure that the chosen course of action remains in the best interests of all stakeholders.

In essence, the lodge's post-operational phase planning reflects a commitment to responsible and sustainable practices, emphasizing the importance of environmental conservation, community well-being, and adaptability in the face of unforeseen challenges.

### **3.2.6 Luxury Chalet Features:**

The 12 Luxury Chalets at Bwabwata National Park Buffalo Lodge will offer an unparalleled guest experience with the following amenities:

1. **Private Kitchen and Chef:**
  - Equipped with private kitchens and dedicated chefs, guests can enjoy a customised culinary experience throughout their stay.
2. **Personal Butler and Cleaning Staff:**
  - Providing personalized service, each chalet will have dedicated butler and cleaning staff, ensuring utmost comfort and convenience.



**3. Guided Excursions:**

- Guests will have the privilege of exploring the wonders of Bwabwata National Park through expert-guided excursions tailored to their preferences.

**4. Privacy:**

- Strategically positioned approximately 200 meters apart, the chalets will provide an intimate and secluded setting, allowing guests to immerse themselves in the wildlife while enjoying absolute privacy.

**5. Splash Pool:**

- Each chalet will feature a private splash pool, contributing to the luxurious ambiance and offering a tranquil space for relaxation amid the natural surroundings.

**6. No Main Building/Reception Area:**

- To preserve exclusivity, there will be no central main building or reception area for the chalets, ensuring an uninterrupted and private experience.

**7. Campsite Facilities:**

- For guests wishing to explore the communal amenities located at the campsite area, such as the restaurant, reception, and main building facilities, the butler will arrange transportation. This setup allows chalet guests to seamlessly access shared facilities while still enjoying the seclusion and personalized service offered by their individual chalets.

**3.2.7 Environmental Management and Sustainability Considerations**

Bwabwata National Park Buffalo Lodge aims to set a benchmark for responsible and eco-conscious tourism, ensuring a positive impact on the environment, local communities, and the broader region. Therefore, the following environmental management planning and sustainability considerations are to be incorporated into all the phases of the project.

**1. Environmental Impact Assessments (EIA):**

- Conduct thorough EIAs before and during project phases to identify and mitigate potential environmental impacts.
- Comply with all relevant environmental regulations and standards.

**2. Biodiversity Conservation:**

- Implement measures to protect and enhance local biodiversity within Bwabwata National Park.

- Develop and adhere to guidelines that prevent disruption to natural habitats and wildlife.
3. **Resource Efficiency:**
    - Adopt eco-friendly construction materials to minimize environmental impact during infrastructure development.
    - Embrace energy-efficient technologies and practices to reduce the lodge's carbon footprint.
  4. **Water Conservation:**
    - Implement water-efficient systems and technologies to minimize water usage.
    - Develop strategies for rainwater harvesting and responsible water management.
  5. **Waste Management:**
    - Develop a comprehensive waste management plan for both construction and operational phases.
    - Emphasize waste reduction, recycling, and responsible disposal practices.
  6. **Community Engagement:**
    - Collaborate with local communities to ensure their participation, address concerns, and provide economic opportunities.
    - Support community initiatives that align with sustainable development goals.
  7. **Cultural Preservation:**
    - Integrate local culture, traditions, and heritage into lodge activities to promote cultural preservation.
    - Develop initiatives that contribute to the protection of cultural assets in the region.
  8. **Sustainable Tourism Practices:**
    - Promote sustainable tourism by educating guests about responsible behaviors and conservation efforts.
    - Encourage environmentally conscious tourism practices to minimize negative impacts.
  9. **Emergency Preparedness:**
    - Develop and regularly update emergency response plans for natural disasters or unforeseen events.
    - Conduct drills to ensure staff and guest safety in emergency situations.
  10. **Adaptability and Continuous Monitoring:**

- Establish a system for continuous monitoring of environmental parameters and adjust practices based on findings.
- Maintain flexibility to adapt to changing environmental conditions and regulatory requirements.

**11. Eco-friendly Construction Practices:**

- Minimize construction-related environmental impacts through sustainable construction practices.
- Choose construction materials that are locally sourced, renewable, and have minimal ecological impact.

**12. Sustainable Supply Chain:**

- Source goods and services from suppliers committed to sustainable and ethical practices.
- Encourage local sourcing to support the regional economy and reduce transportation-related emissions.

**13. Post-operational Phase Planning:**

- Develop and implement plans for the post-operational phase, including potential transition scenarios and site rehabilitation.
- Ensure a legacy of positive environmental and economic impacts after the lodge's operational life.

**14. Carbon Offsetting and Neutralization:**

- Explore options for carbon offsetting initiatives to counteract the lodge's carbon emissions.
- Implement strategies to achieve carbon neutrality or reduce overall environmental impact.

**15. Stakeholder Engagement:**

- Engage with stakeholders, including governmental bodies, NGOs, and local communities, for input and collaboration.
- Foster open communication to address concerns and build partnerships for sustainable development.

## 4 REGISTRATION OF OWNERSHIP OR TITLE DEEDS

The properties will be registered as per details shown in the table below.

Table 4-1: Registered Landowner

Ownership	Property Description	Size (ha)	Title Deed Nr.
The Government of the Republic of Namibia	Bwabwata NP, Buffalo Core Area	TBD	No title or Leasehold will be issued. Concession Operator's Contract

## 5 ALTERNATIVES IDENTIFIED

This section of the report details the various alternatives that have been considered for the project.

### 5.1 The “No-Go” Option

The developer has no ownership of the study area and the owner of the land or area is with the Government of the Republic of Namibia through the custodianship of the Ministry of Environment, Forestry and Tourism which is a signatory to the signed Concession Operator's Contract (COC) to utilised the identified study area for Tourism purposes for 25 years. There are similar rights granted by MEFT to other Operators on the Easter part of Bwabwata National Park on the bank of the Kwando River.

The “no-go” option/ the continuation with Wildlife Conservation and Natural Resource management by MEFT on the study area were not regarded as a future land-use option, because:

- The study area is ideally situated, in terms of accessibility, locality, visibility and land-use compatibility and the economic and social value of the study area, when developed are regarded as higher than the site's ecological or Conservation or Natural Resource Management, because the study area is known as ;
- A Brownfield site which is a site that has been previously developed or destroyed by human activity.



**Image 5-1:** Structure at the Project Site

Above are some of the structures on site for illustration purpose to the site which is being referred to a Brownfield, whereas below it is showing the sewer system which is also on the proposed site of development.

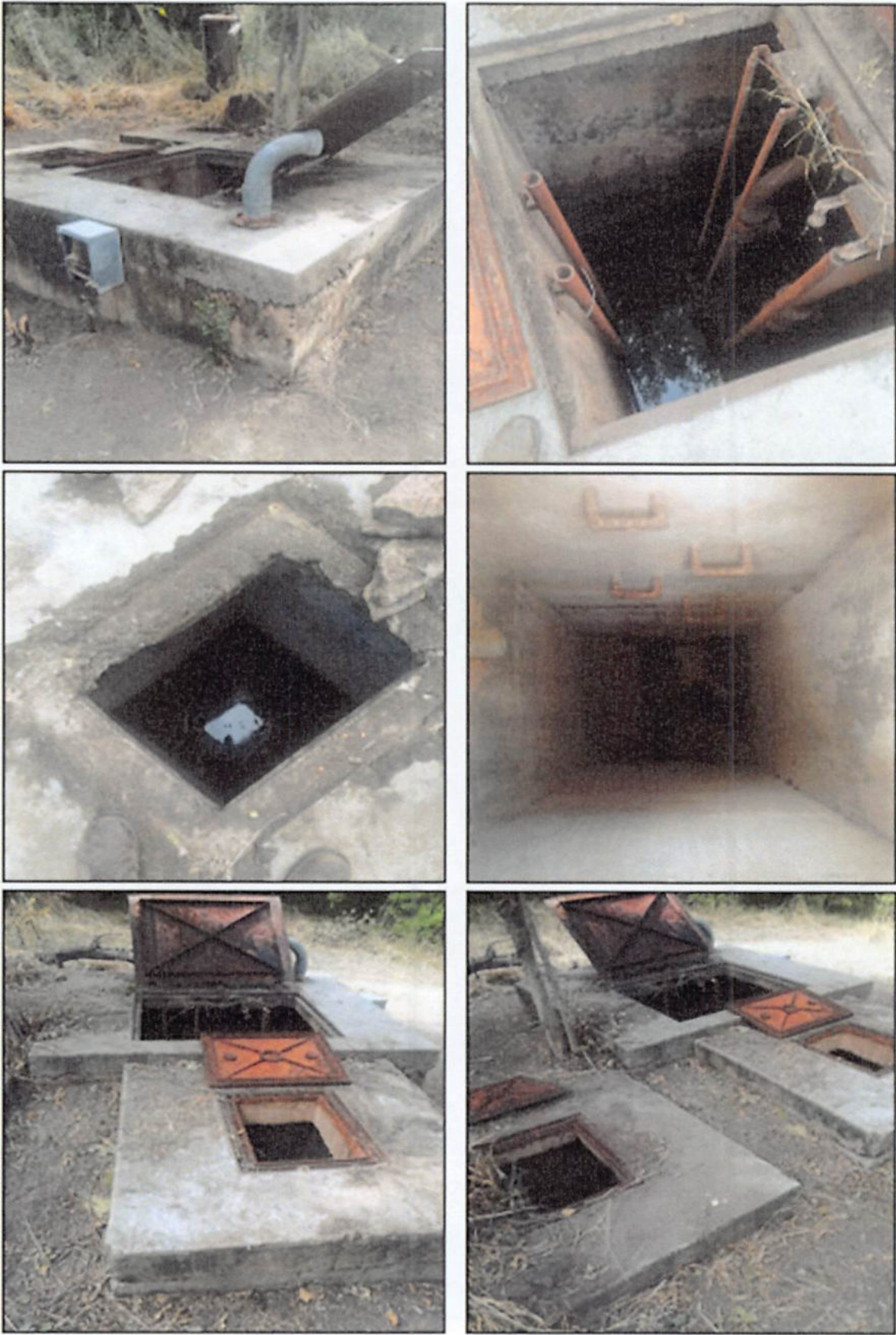


Image 5-2: Sewer System at the Project Site

- A Greenfield site is one that has had little human impact. If there is a choice available, a Brownfield site should be rehabilitated and used for development in preference to a Greenfield site. Not only does this make sound environmental sense, but it could be used as a marketing point and may have additional financial benefits such as compacted level ground, existing structures, services, and materials on site.
- All the natural vegetation have been removed from the study area many years ago. The study area is furthermore isolated from other open space / Brownfields areas by means of a road/MEFT Buffalo station (to the north), and Kavango River to the south, by road to the east and park management fence to the west of the study area. Edge effects also have a major impact on the ecological value and potential of the study area. The study area will thus add significant value to the larger continuous open National Park systems in the surrounding area if the “no-go” option is followed. Therefore, due to the open space linkages of the National Park, the ecological potential of the study area is being regarded as higher; (See **mitigation measures**)
- The surrounding rural developments and human activities threaten the Conservation and Natural Resource management potential of the site and leads to a range of risks that are difficult to quantify;
- The site is situated with a National park area that is classified as core area and as such it can be allowed in order to minimise local people outside in the Multi use zone from encroaching area;
- Due to the disturbed nature of the study area, it will be difficult to rehabilitate the study area;

It is also important to take note the Government (MEFT) has earmarked the study area for development in their Park Management Plan, and the Tourism Development Plan. Furthermore, MEFT also regarded the study area as suitable for the intended purpose, because it is situated immediately adjacent to the park residents and it is already almost completely surrounded by human development.

It is important to take note that the study area and the human settlement proximity. The following tables represent a preliminary comparison between the “No-Go” alternative and the development alternative.

**Table 5-1:** Environmental Issues - “No-Go” Option

Issue	Short term	Medium term	Long Term	
<i>Geology and soils</i>				Positive
				Neutral
				Negative
No development will not have a significant impact on the geology or hydrology of the study area, especially in the short term. Indirect impacts created by the edge effects of the surrounding developments could however, in the long term, lead to a decrease in vegetative coverage and even to exposed areas. Erosion, siltation and water pollution problems could then be caused. Changes in the surface drainage patterns could also occur.				
<i>Hydrology</i>				Positive
				Neutral
				Negative
No development will not have a significant impact on the geology or hydrology of the study area, especially in the short term. Indirect impacts created by the edge effects of the surrounding developments could however, in the long term, lead to a decrease in vegetative coverage and even to exposed areas. Erosion, siltation and water pollution problems could then be caused. Changes in the surface drainage patterns could also occur.				
<i>Vegetation</i>				Positive
				Neutral
				Negative
If no development takes place in the area surrounding the study area, the impacts on the fauna and flora and biodiversity will not be significant. If development takes place adjacent to the study area the edge effect could, in the long term, have an impact on the ecological potential and biodiversity of the vegetation of the study area.				
<i>Fauna</i>				Positive
				Neutral
				Negative
If no development takes place in the area surrounding the study area, the impacts on the fauna and flora and biodiversity will not be significant. If development takes place adjacent to the study area the edge effect could, in the long term, have an impact on the ecological potential and biodiversity of the vegetation of the study area.				
<i>Social</i>				Positive
				Neutral
				Negative
In the short term the no-go option will have no effect on the social of the study are and the surrounding areas, but in the long terms the no-go option will have a negative impact on the social of the study area. No development on the site can lead to informal settlements which could have a major impact of the safety and security of the surrounding landowners.				
<i>Economic</i>				Positive
				Neutral
				Negative
With no development on the study area there will be no economic growth which leads to a negative impact on the site from short term to long terms. With no development there will be no job opportunities.				

*Note: The “no-go” option is predominantly neutral in the short and medium term, and turns negative in the long term.*

**Table 5-2:** Environmental Issues of the proposed development

Issue	Short term	Medium term	Long Term	
<i>Geology and soils</i>				Positive
				Negative



				Negative
<p>In the short term (the construction phase), the proposed development will have a negative impact on the geology and hydrology of the study area. It is, however possible to mitigate the impacts to acceptable levels. If well planned, the long-term impacts on the geology will be neutral or even positive.</p>				
<b>Hydrology</b>				Positive
				Neutral
				Negative
<p>Some siltation and water pollution problems could occur during the construction phase, but such impact will be short term of nature. At this stage the developer relies on ground water as water source for the development and therefore the short and medium impacts on the hydrology is negative. In the longer term (if municipal water becomes available, the development will be connected to the municipal water network and the impact on the hydrology will then become positive. No more water will be abstracted from the irrigation channel and therefore some agricultural water will be made available to other farms in the area. If the “no-go”/farming option is to be followed, the owner will continue with the usage of ground water and water from the irrigation channel for domestic and irrigation purposes.</p>				
<b>Vegetation</b>				Positive
				Neutral
				Negative
<p>The natural vegetation of the study area has already been removed to make way for crops. Furthermore, the study area is already surrounded and isolated from other open spaces by man-made features such as the irrigation channel, the storm water canal and Van Riebeeck Street. Edge effects are already playing a role and the study area currently plays no role in the improvement of the ecological integrity of nearby watercourses or ecologically sensitive areas. After the development took place, some areas will be covered with formal landscaping, which will also include some trees and shrubs that can attract birds and insects. In our opinion the impact will remain neutral throughout all the development phases.</p>				
<b>Fauna</b>				Positive
				Neutral
				Negative
<p>The natural vegetation of the study area has already been removed to make way for the Military Baraks. Furthermore, the study area is Brownfield which is already disturbed and having a Tourism development by using the existing site has no detrimental effect on the Natural environment. Edge effects are already playing a role and the study area currently plays no role in the improvement of the ecological integrity of nearby watercourses or ecologically sensitive areas. After the development has taken place, some areas will be covered with formal landscaping, which will also include some trees and shrubs that can attract birds and insects. In our opinion the impact will remain neutral throughout all the development phases.</p>				
<b>Social</b>				Positive
				Neutral
				Negative
<p>From a social, institutional and economical point of view, the proposed development will have significant positive impacts. The construction phase could cause some minimal social impacts, but in the long term the surrounding community and the larger region will benefit from the proposed development. The construction and operational phase will also create a significant amount of temporary and permanent job opportunities.</p>				
<b>Economic</b>				Positive
				Neutral
				Negative
<p>From a social, institutional and economical point of view, the proposed development will have significant positive impacts. The construction phase could cause some minimal social impacts, but in the long term the surrounding community and the larger region will benefit from the proposed development. The construction and operational phase will also create some temporary and permanent job opportunities.</p>				

*Note: From the preliminary investigations that were done, it is anticipated that the proposed development option is predominantly negative in the short term, turns neutral in the medium term and then positive in the long term*

## 5.2 Locality Alternatives

The locality of the study area is desirable for the proposed development due to the following:

- The site is well located from a connectivity, visibility and accessibility point of view;

- The development will promote optimum utilisation of services, because the site and its surroundings already accommodate old Military ruins and other services;

### 5.3 Land-Use Alternatives

#### 5.3.1 Conservation

Based on the site visits and the available data, it is evident that the application site is located within a protected area. Therefore, there is no other alternative land-use other than sustainable Tourism with a limited impact as per the rights given in the Agreement/Contract between MEFT and Nyime Safari Lodges. *Refer to Annexure D for Agreement/Contract, which indicates areas, which have been earmarked for development. (CONTACT THE CONCESSION UNIT OF THE MEFT, FOR MORE INFORMATION)*

All the natural vegetation will not be removed from the study area. Furthermore the study area is located within a National Park (Bwabwata national Park) pre-determined by MEFT as the Suitable site for the Development due to its status as Brownfield, henceforth, the edge effects also have no major impact on the ecological value and potential of the study area. Conservation is regarded as most viable land-use for the study area, because the ecological value and potential of the study area is very high.

#### 5.3.2 Mixed Use (Alternative 1/ the Preferred Alternative)

Refer to Annexure A: Figure 9 for proposed Lodge and Campsite Layout 1. It is important to that concession rights as well as other requirements relevant to the site are to be taken into account.

##### 5.3.2.1 Concession Rights

Tourism development and operating rights:

- 5.3.2.1.1. The Concessionaire shall have the following tourism development and operating rights.
  - a) The Concessionaire shall have the exclusive right to develop and operate a 12-room, 24-bed luxury tented lodge in the Concession Area, including the following support infrastructure.
    - i. Kitchen, reception, dining and communal areas, staff quarters and viewing balcony, (Note that due to sensitivity of the area, only key personnel well overnight in the park due to;
      - Park rules on opening and closing,
      - Minimise the impact and footprint inside the park.

- b) The Concessionaire shall have the exclusive right to develop and operate one (1) campsite with nine (9) camping sites (maximum 40 campers), in the Concession Area including basic ablution facilities.
- c) The Concessionaire shall have the exclusive right to moor and operate houseboats in the Concession Area.
- d) The Concessionaire shall have the exclusive right to retail trade (including but not limited to the selling of craft, meals, food, beverages and firewood) in the Concession Area.

### **5.3.2.2 Activity rights**

5.3.2.2.1. The Concessionaire shall have the following exclusive activity rights within Bwabwata National Park

- a) Guided game-viewing drives
- b) Guided boat rides
- c) Bird watching and guided hiking trails with clients
- d) Guided drive packages

Provided such activities conform to the Environmental and Development Guidelines, Park rules and the Management Plan.

- e) Activities conducted in the Buffalo Core area shall require issuing of a park entry permit and payment of Park fees by the Concessionaire to the Concessor.
- f) The Concessionaire's guides shall be qualified and trained in line with Best Industry Practice, in their respective field (e.g. walking guides, etc.).
- g) The Concessionaire may request permission from the Concessor to conduct other activities in the Park on a non-exclusive basis; however the Concessor reserves the right to refuse such permission.

### **5.3.2.3 Tourism access rights**

5.3.2.3.1. This Concession is situated within the very important biophysical zone. The Concession is zoned for a low level of use and for exclusive access (i.e. for the Concessionaire's exclusive use).

### **5.3.2.4 Activity Guidelines**

5.3.2.4.1. All activities listed in paragraph 2.2 of the Contract shall be guided by staff of the Concessionaire.

5.3.2.4.2. The Concessionaire's activity guides shall be qualified and trained in line with Best Industry Practice in their respective field, and shall be licensed according to the appropriate statutory requirements for Namibia and / or any specific requirements for the Park as stipulated by the Concessor.

5.3.2.4.3. All tourism activities must conform to the Environmental and Development Guidelines in **Annexure F** of the signed contract state that, the development that, the proposed development will be subject to the EIA and EMP procedures outlined in this Agreement.

### **5.3.2.5 Ark and Concession Area Management**

#### **5.3.2.5.1. Track development & maintenance**

- a) Track planning and development in the Concession Area and the Park shall be the responsibility of the Concessor, and shall be guided by the Management Plan for the Park.
- b) The Concessionaire may make proposals to the Concessor regarding its requirements for new tracks.
- c) Tracks assigned for the Concessionaire's exclusive use will be maintained by the Concessionaire at the Concessionaire's own cost and risk, but under supervision of the Concessor.
- d) In planning and developing vehicle tracks the Concessor will be guided by the challenge of meeting the needs of the Concessionaire and / or Operator while also ensuring that the conservation and other Park objectives are not compromised. This challenge will be met by the Concessor through a process of consultation with the Concessionaire and / or Operator.

#### **5.3.2.5.2. Park Rules**

- a) The Concessionaire shall abide by the Park Rules, as stipulated in the Nature Conservation Ordinance No. 4 of 1975, as amended, and Government Notice No. 240 of 1976, or succeeding legislation and regulations that may repeal and replace these laws.

#### **5.3.2.5.3. Park Entry Fees**

- a) The Concessionaire shall pay Park Entry Fees for each guest that enters the Park. Employees of the Concessionaire that work in the Concession Area shall be exempt from such fees.

- b) The amount payable shall be in accordance with the statutory fees published from time to time by the Concessor in the Government Gazette.
- c) Park Entry Fees shall be payable by the Concessionaire at a location and in a manner to be advised in writing by the Concessor.
- d) Payment of Park Entry Fees shall be accompanied by a summary of vehicle and guest entry numbers, including a description of vehicle type and nationalities of guests.
- e) Delays in payment shall incur the penalty interest rate stipulated in the Concession Operators Contract
- f) Payment procedures may be reviewed from time to time and amended by mutual agreement between the Concessor and the Concessionaire.

5.3.2.5.4. Public camping

- a) The Concessor shall not permit camping inside the Park by the general public, unless it is at agreed demarcated sites or permitted under a concession agreement.
- b) This restriction does not apply to camping by the Concessionaire's staff, agents and partners' while carrying out their official duties inside the Park.

**5.3.2.6 Specifications**

5.3.2.6.1. The Operator's vehicles used in the Park shall:

- a) have a net mass of no more than 2 (two) metric tons;
- b) have a maximum passenger capacity of 9 (nine) excluding the driver / guide;
- c) be four-wheel-drive and of standard vehicle width;
- d) be licensed according to the appropriate statutory requirements for Namibia;
- e) be properly converted, modified and equipped in accordance with Best Industry Practice;
- f) be maintained in accordance with Best Industry Practice; and
- g) be operated with low tyre-pressure to minimise negative impacts on tracks and roads.

5.3.2.6.2. The above specifications do not apply to the Operator's lodge supply vehicles used primarily along the main access track to the Concession Area.

5.3.2.6.3. **Boats** - The Operator's boats used in the Park shall:

- a) be installed with an electric or four-stroke outboard motor of not more than 120hp;
- b) have a maximum passenger capacity of 50 (fifty) excluding the boat operator / guide;
- c) have a maximum length of 8 (eight) metres;
- d) be licensed according to the appropriate statutory requirements for Namibia;

- e) be properly converted, modified and equipped in accordance with Best Industry Practice;
- f) be maintained in accordance with Best Industry Practice.

### **5.3.2.7 Capacity Limits**

5.3.2.7.1. The operating capacity limits shall be as follows:

- a) Maximum twenty-five (25) room, fifty (50) bed luxury tented lodge in the Concession Area.
- b) Maximum one (1) camp site with a maximum nine (9) camping sites sleeping a maximum of forty (40) people
- c) Maximum three (3) houseboats with a maximum five (5) rooms
- d) The Detailed Design, EIA and EMP procedures required by this agreement, may propose changes to these capacity limits. Any such changes shall be agreed by the Parties and such agreement shall be based on the expert recommendation of the architect and / or independent environmentalist contracted by the Concessionaire to prepare the Detailed Design the EIA and EMP.

### **5.3.3 Layout Alternatives**

Many alternative layouts for the development will be considered during the EIA phase of the development before the layout will be finalised. The final layout will also be tested against an environmental sensitivity map that will be compiled for the study area. The final layout will be product of a multi-disciplinary consultation (during the EIA phase) between the appointed professionals. At the consultative meeting each member (including the Environmental Consultant) will be afforded the opportunity to share his/her findings with the other members of the project team. The Environmental Consultants will also present the environmental sensitivity map to the project team during the meeting.

The following disciplines will most probably take part in the consultative meeting:

- The Architects and Landscape Architects;
- Structural Contractor;
- Electrician;
- Plumbing and fitting;
- The Environmental Consultants (ECA); and
- The Applicant.

The comments and issues raised by the interested and affected parties will also be taken into consideration during the Consultive meeting. The proposed Buffalo Lodge development forms

part of the Bwabwata or Northeast Tourism Development Plan and Framework. In terms of the Brownfield should be the focal point for development and the provision of services. The application is therefore in line with the Northeast Tourism Development Plan.

### **5.3.4 Technology Alternatives**

#### **5.3.4.1 On-Site Services (Alternative 2- Proposed Alternative)**

Due to the uncertainty on the capacity of the sewage treatment works at this stage, it was decided by the Developer to make provision for a sewage treatment system on both site as the first option. The sewage treatment system on site that is proposed is a Zoeller Fusion Serie Wastewater Treatment plant developed in Japan, marketed by Clarus Environmental and distributed by Maskam Water.

The system will be installed underground, and the only visible part is the access lids. The plant will have a capacity of 300 ℓ/day. A SAME automatic screen will be installed, and sewage will be split to the units thereafter. The system has four chambers, Sedimentation Chamber, Anaerobic Chamber, Aeration Chamber and Storage Chamber. This proposed system complies with the requirements of DWS for the discharge of water into a natural stream and for irrigation usage. The outflow will be piped to the existing storm water canal on the southeastern boundary, the same structure that will receive the storm water from the site.

### **5.4 Proposed Zoning and Land Use**

The image shows the proposed zoning and land-use at the project site.

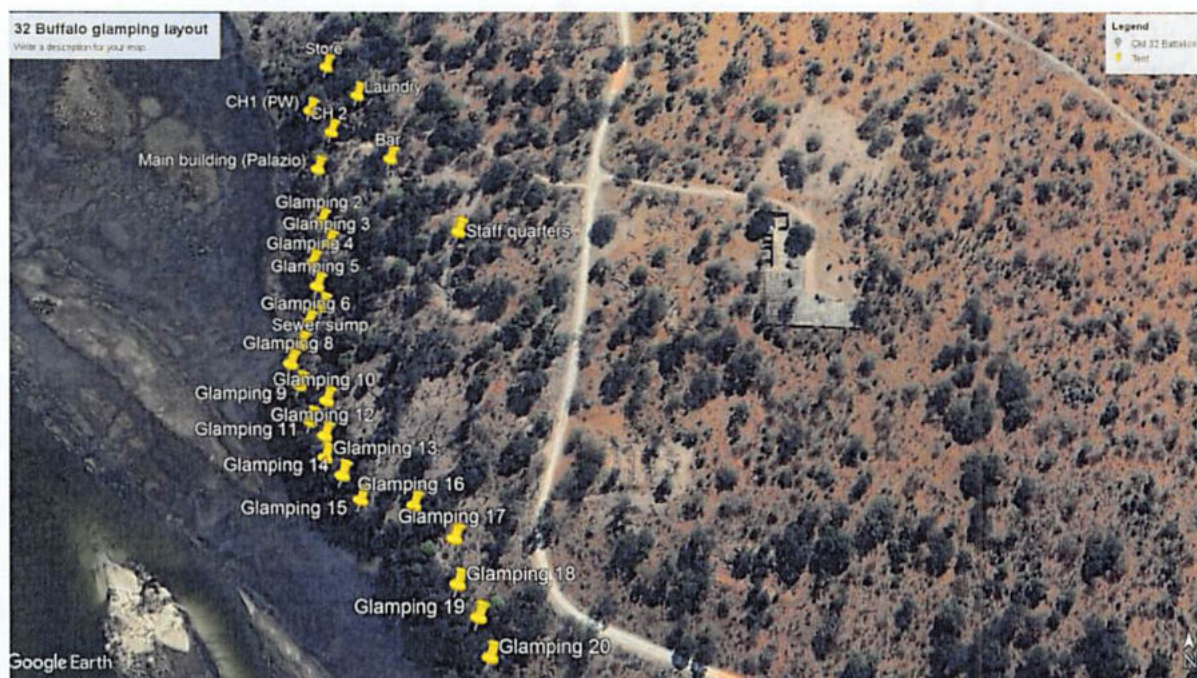


Image 5-3: Proposed Zoning and Land-use

## 6 DESCRIPTION OF THE BIOPHYSICAL AND SOCIAL ENVIRONMENT

This section briefly describes the environment directly and indirectly associated with the study area. All the environmental (social, ecological, economical and institutional) will be taken into considerations and the potential implications for the development will be listed for each aspect.

### 6.1 The Physical Environment

#### 6.1.1 Geology and Soils

According to the Geotechnical Report (Report No 1304-G-01) the entire site is covered by silty sand and sand overburden, on average approximately 0.25 m thick, the overburden is situated over sandy clay and in places over clayey/silty sand. Sparse quantities of gravel, often ferruginised, were found in all test pits. The characteristics of the material on the site are such that the retrieval of undisturbed samples for the purpose of consolidation test could not be carried out or was deemed unnecessary.

##### a) Preliminary Issues Identified.

- Collapsible materials and expansive materials;
- Excavation;
- Comprehensive blasting will be required;



- Perched water table (a perched water table can develop and slight seepage may be present during the wet seasons);
- Loss of topsoil.

**b) Additional Information or Studies Required For the EIA Phase**

- The detailed Geotechnical Report and development guidelines will be included as part of the EIA.

## **6.1.2 Hydrology**

### **6.1.2.1 Surface Water**

A river with its associated riparian zone is situated to the east of the study area (more than 900m from the study area). The study area is not linked to the river or its associated open spaces. It is completely isolated from the river area by means of a concrete canal, a dirt road and farms that are currently covered with cultivated lands. Soil and wetland specialist, Dr. J.H. van der Waals, was on the site and conducted an Agricultural Potential Study, which did not indicate any wetlands on the sites. No further recommendations for studies were made in the report. Storm water from rainfall would mainly be generated on the site itself.

### **6.1.2.2 Sub-surface Water**

The site slopes towards the east at an average of approximately 1, 5%. No problems with surface drainage are expected, especially if a well-planned storm water management system is implemented. Some perched water conditions, saturated and seepage conditions are however expected, especially in the eastern section of the study area.

Agricultural drains to control groundwater are likely to be required for basements or sub-surface structures and it will form an essential part of the structural and civil design process.

### **6.1.2.3 Flood Lines**

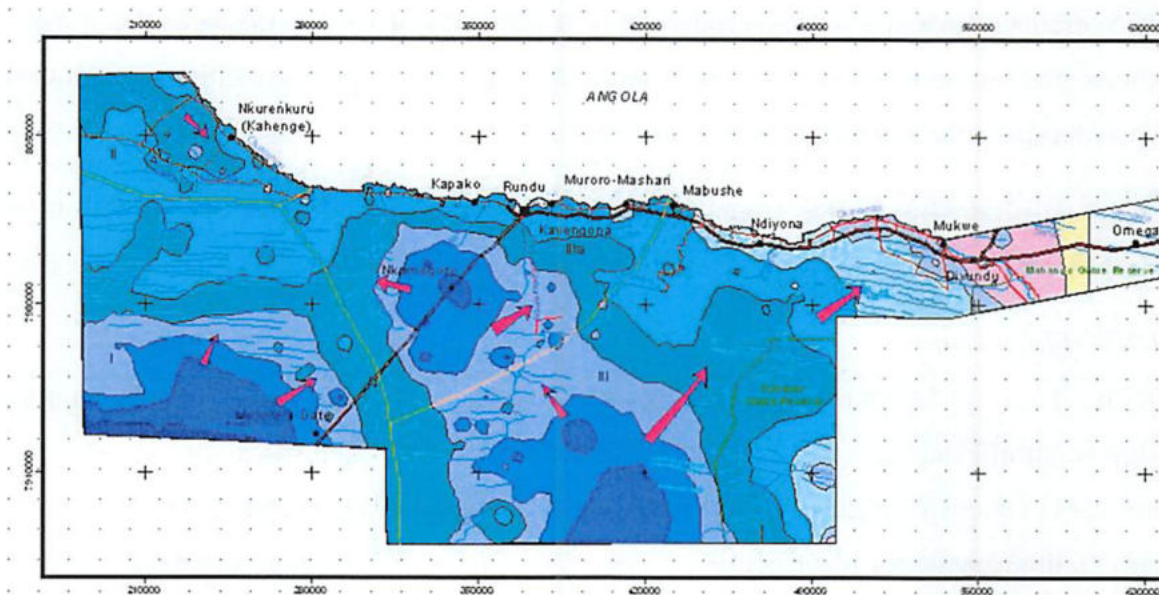
In terms of Section 144 of the Water Resource Management Act (Act 24) of 2004 the proposed Lodge is not affected by any 1: 50 and 1:100-year flood lines. The so-called concrete storm water wall at site was originally constructed to accommodate water from the river during the flood. Preliminary Issues Identified

- Ground water pollution, siltation and erosion problems;
- Pollution and siltation of water bodies lower down the catchment;
- More impermeable surfaces will lead to an increase in the speed, quantity and quality of the storm water;

- Erosion caused at discharge points of storm water (especially if less and larger storm water pipes are used); and
  - Lowering of groundwater levels.
- a) Additional Information or Studies required for the EIA Phase
- A detailed Storm Water Management Plan will be required for assessment and inclusion during the EIA phase. The storm water design for the proposed development must be designed to:
    - Reduce and/or prevent siltation, erosion and water pollution. If erosion, siltation and water pollution is not addressed, the sustainability of the drainage and the open space systems lower down in the catchment area can be negatively impacted by the development.
    - Storm water runoff should not be concentrated as far as possible and sheet flow should be implemented.

### 6.1.3 Topography

The region is topographically fairly flat with elevations ranging from 1000 to 1200 mamsl. The topography descends northwards towards the Okavango River and eastwards towards Botswana (Makgaikgadi depression).



**Figure 6-1: Topography**

The population of the Kavango Region is predominantly rural with 72% of people residing in rural areas and 28% in urban areas. However, the population distribution is centred along the Okavango River, along the Grootfontein-Rundu road and decreases into the hinterland of the

region. The largest urban settlements are the capital Rundu and the towns of Nkurenkuru and Divundu. The proposed development is +/- 15Km east of Divundu inside the Bwabwata National Park.

The majority of the population practice subsistence farming both arable and livestock with some people utilizing natural resources (trees and fish) to supplement or make a living. Within the region the National Parks have been demarcated from the “communal” lands areas thus making it feasible for community benefit as they are the immediate neighbor or the affected parties due to the creation of the National Park.

#### ***6.1.3.1 Physiography, Climate & Drainage***

The region is topographically fairly flat with elevations ranging from 1000 to 1200mamsl. The topography descends northwards towards the Okavango River and eastwards towards Botswana (Makgaikgadi Depression). On this general flat topography subtle changes occur due to longitudinal dunes and associated inter dunal depressions and “dry-fossil” river valleys known locally as the “omirambas”

Within the Kavango region the vegetation can be divided into four main types:

- Broad leafed deciduous woodland.
- Shrubland.
- Grasslands
- Riverine.

The distribution of vegetation types is primarily controlled by the prevailing climatic conditions decreasing rainfall northwards and soil type and by human activity. Five soil groups are recognized being arenosols, fluvisols, calcisols, solonetz and anthosols.

The Kavango area has two distinct drainage features the perennial Okavango River and the Omirambas, which generally drain eastwards. The main omurimba is the northerly draining Omuramba Omatako. Little to no flow occurs in the Omirambas, the little run-off that occurs produces isolated “ponded” areas, whilst flow from the Okavango can flow into the Omuramba Omatako for short distances at the confluence.

#### **a) Preliminary Issues Identified**

- According to the consulting Engineers the slope is sufficient to allow for natural storm water drainage as well as for the cost-effective installation of essential engineering services.

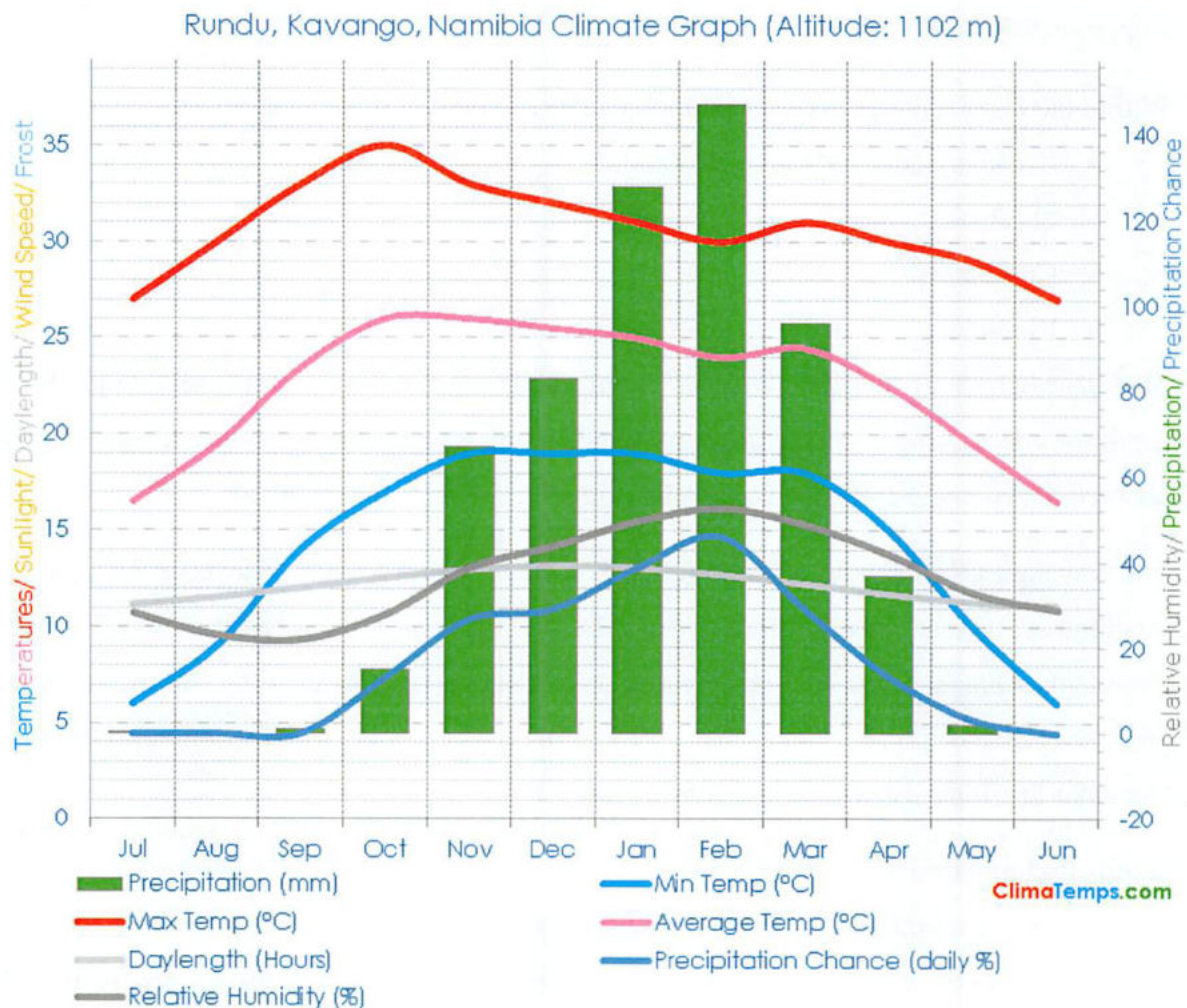
- The topographical characteristics will have no detrimental effect on the development potential of the site.

b) Additional Information or Studies required for the EIA Phase

- A detailed Storm Water Management Plan will be required for assessment and inclusion during the EIA phase.

**6.1.4 Climate**

Located at an elevation of 1161.26 meters (3809.91 feet) above sea level, Kavango East has a Subtropical steppe climate (Classification: BSh). The city’s yearly temperature is 25.67°C (78.21°F) and it is 1.21% higher than Namibia’s averages. Kavango East typically receives about 62.53 millimeters (2.46 inches) of precipitation and has 92.64 rainy days (25.38% of the time) annually. Hot, humid conditions are usually encountered in the Tuli region. The Climatic graph below gives an overview of the climatic conditions in the region. Heavy summer thunderstorms of short duration in the late afternoon and evening may be experienced.



**Figure 6-2: Climatic Graph**

Rainfall occurs mostly during the summer months (December - March).

- Wind - Summer prevailing winds is in a north-western direction and winter winds in a south-eastern direction.
- Temperature - Average temperatures reach around 22 - 32 °C in January and fall to 11 °C in May.
- Rain - Average annual rainfall is between 600 – 800 mm, with late October or (less often) December January the wettest month and May to late October the driest.

a) Preliminary Issues Identified

- Should the construction phase be scheduled for the summer months, frequent rain could cause very wet conditions, which makes construction and environmental rehabilitation works extremely difficult;
- Such wet condition often cause delays to building projects and the drainage of water away from the construction works (in the case of high water tables) into the nearby water bodies.

b) Additional Information or Studies required for the EIA Phase

- Recommendations to mitigate dust pollution will be included in the Environmental Management Plan.

## 6.2 The Biological Environment

The Caprivi Strip (and also the Kavango area) in the northeast has the highest rainfall with up to 600 mm and in the far northeast even up to 800 mm annually. The humidity is also the highest and a hot tropically humid climate dominates, making the region the greenest in the country. Rivers and swamps are plentiful and dominate the landscape. During the summer months the average temperature lies at 35° C during the day, dropping to about 20° C at night. In winter the day temperature rises to a cosy 28° C, but at night the temperature can drop to 7° C or even 1° C. Frost does not occur though. During the summer months the Caprivi has an average of 8 – 10 rainy days a month, whilst during the months of June to August hardly any precipitation is received.

The Evergreen Caprivi Strip, nestled within Bwabwata National Park in Namibia, is characterized by a diverse range of flora, thriving in the ecosystems shaped by the Okavango and Zambezi rivers. From woodlands and riverine forests to open grasslands and aquatic habitats, the park supports an array of plant species, contributing to its lush and varied

landscape. Examples of plant species include *Baikiaea plurijuga*, known as Zambezi Teak, recognized for its durable timber and distinctive compound leaves. The Wild Date Palm, *Phoenix reclinata*, graces riverine environments with its gracefully arching fronds, while the Candelabra Tree (*Pandanus candelabrum*) lines riverbanks, presenting unique prop roots resembling a candelabrum. *Ficus sycomorus*, or Sycamore Fig, grows along watercourses, providing shade and sustenance for wildlife, and the Mongongo Tree (*Schinziophyton rautanenii*) in woodland areas produces edible fruits and nuts.

Bwabwata National Park's fauna contributes to the rich tapestry of life, encompassing iconic mammals, diverse bird species, and various reptiles. The park's elephant populations, represented by *Loxodonta africana*, use the Caprivi Strip as a crucial migration corridor. African Buffaloes (*Syncerus caffer*) form herds, particularly in the Kwando Core Area, contributing to the park's herbivore diversity. Lions (*Panthera leo*), as apex predators, play a vital role in regulating herbivore populations, ensuring a balanced ecosystem. The aquatic habitats are home to Hippos (*Hippopotamus amphibius*) and Nile Crocodiles (*Crocodylus niloticus*), showcasing the diversity of reptilian life. Antelope species like the Greater Kudu (*Tragelaphus strepsiceros*) gracefully navigate the woodlands, adding to the park's mammalian diversity. Birdlife includes species like the Great White Pelican (*Pelecanus onocrotalus*), often spotted near water bodies, contributing to the rich avian diversity.

Bwabwata National Park's Evergreen Caprivi Strip holds immense conservation significance as a refuge for endangered and vulnerable species, contributing to regional biodiversity conservation. Ongoing conservation efforts prioritize habitat protection, wildlife corridor management, and community engagement in sustainable practices, ensuring the longevity of this ecological treasure.

a) Preliminary Issues Identified

- **Habitat loss and fragmentation** - Construction and operation of the lodge may lead to habitat disturbance, affecting local flora and fauna. This is particularly critical in sensitive ecosystems like riverine forests and woodlands.
- **Human and wildlife conflict** - Increased human presence, especially if not managed carefully, can lead to human-wildlife conflict. Animals might be attracted to lodge facilities or experience disruptions in their natural behaviour.

- Resource Consumption - Lodges require resources such as water and energy. If not managed sustainably, this can strain local resources, especially in areas where these resources are limited.
- Tourist Overload - A surge in tourism, if not properly managed, can lead to overcrowding at certain attractions within the park, impacting the visitor experience and putting stress on the ecosystem.

b) Point to Note

- It is anticipated that there will be minimal negative impacts on the natural vegetation, because most of the natural vegetation has been removed from the study area.

### **6.3 Description of the Existing Social Environment**

#### **6.3.1 Existing Land Use**

##### **6.3.1.1 The Surrounding Area**

The proposed project site is within the Bwabwata National Park, identified by MEFT as a site suitable for Tourism development, and therefore, it is safe to state that the area has no immediate surroundings apart from the MEFT office situated +- 1.9 Km on a straight line from the proposed site earmarked for the development of a Campsite.

##### **6.3.1.2 The Study Area**

In terms of the Environmental Management Act (EMA) is a statutory body responsible for ensuring the sustainable utilization of natural resources and prevention of pollution, and degradation. Therefore, list of activities that may not be undertaken without environmental clearance certificate.

#### **6.3.2 Proposed Land Use**

The proposed Buffalo Lodge and Campsite Development will consist of the following land uses:

- One (1) site for “Special and exclusive rooms/Challets”
- One (1) for “Glamping campsite”

NB: See details on the site layout, or details will be provided if need be that, a full EIA is needed for the project.

### 6.3.3 Visual Environment

The following preliminary visual assessment criteria been used to determine the impact of the proposed Buffalo Lodge development on the state of the environment- the significance is indicated by the respective colour coding for each of the impacts, being high, medium and low.

**Table 6-1:** Visual Assessment Criteria

CRITERIA	IMPACT		
	HIGH	MEDIUM	LOW
Visibility	A prominent place with an almost tangible theme or ambience	A place with a loosely defined theme or ambience	A place having little or no ambience with which it can be associated
Visual quality	A very attractive setting with great variation and interest – no clutter	A setting with some visual and aesthetic merit	A setting with no or little aesthetic value
Compatibility with the surrounding landscape	Cannot accommodate proposed development without the development appearing totally out of place – not compatible with the existing theme	Can accommodate the proposed development without it looking completely out of place	The surrounding environment will ideally suit or match the proposed development
Character	The site or surrounding area has a definite character/ sense of Place	The site or surrounding environment has some character	The site or surrounding environment exhibits little or no character/ sense of place
Visual Absorption Capacity	The ability of the landscape not to accept a proposed development because of a uniform texture, flat slope and limited vegetation cover	The ability of the landscape to less easily accept visually a particular type of development because of less diverse landform, vegetation and texture	The ability of the landscape to easily accept visually a particular type of development because of its diverse landform, vegetation and texture
View distance	If uninterrupted view distances to the site are > 5Km	If uninterrupted view distances to the site are < 5Km but > 1Km	If uninterrupted view distances to the site are > 500m and < 1000m
Critical Views	Views of the site seen by people from sensitive view sheds i.e. farms, nature areas, hiking trails etc.	Some views of the site from sensitive view sheds	Limited or partial views of the site from sensitive view sheds
Scale	A landscape with horizontal and vertical elements in high contrast to human scale	A landscape with some horizontal and vertical elements in some contrast to human scale	Where vertical variation is limited and most elements are related to the human and horizontal scale



The study area is situated immediately outside the town of Divundu and a development on the study area will be regarded as an addition of the luxury accommodation the town can offer.

a) Preliminary Issues Identified

The proposed development will blend in with the land-uses of the surrounding area. It could however also have a positive impact have if the development is well planned. An attractive development on the study area will create an “entrance gate” symbolic into the Concession area.

Additional Information or Studies required for the EIA Phase

- Mitigation measures must be supplied for the visual impacts during the EIA Process; and
- Architectural guidelines must be based on the mitigation measures supplied in the EIA Report.

The method of integration of the proposed development into the existing surrounding will determine the grade of visual impact. The proposed architecture should blend in with the existing character of the area and that of the surrounding developments.

### 6.3.4 “Sense of Place”

The concept of “a Sense of Place” does not equate simply to the creation of picturesque landscapes or pretty buildings, but to recognize the importance of a sense of belonging. Embracing uniqueness as opposed to standardization attains quality of place. In terms of the natural environment it requires the identification, a response to and the emphasis of the distinguishing features and characteristics of landscapes. Different natural landscapes suggest different responses. Accordingly, settlement design should respond to nature.

In terms of the human made environment, quality of place recognizes that there are points where elements of settlement structure, particularly the movement system, come together to create places of high accessibility and these places are recognized in that they become the focus of the public investment, aimed at making them attractive, user-friendly and comfortable to experience. The landscape is usually experienced in a sensory, psychological and sequential sense, in order to provide a feel and image of place (genius loci).

A landscape is an integrated set of expressions, which responds to different influences. Each has its unique spirit of place, or “genius loci”. Each landscape has a distinct character, which makes an impression in the mind, an image that endures long after the eye has moved to other settings.

Buffalo Lodge if planned correctly the proposed development could enhance the genius loci of the broader area by establishing a residential township and open spaces. The genius loci is “the prevailing character or atmosphere of a place, the presiding god or spirit of a place”. Sense of Place is the subjective feeling a person gets about a place, by experiencing the place, visually, physically, socially and emotionally. The Sense of Place of a property/ area within the boundaries of a city is one of the major contributors to the Image of a City /City Image. In the case of Buffalo Lodge, it is believed to be the “Sense of Place and an Image” of the park (Bwabwata National Park).

Place structure refers to the arrangement of physical place making elements within a space, whereas sense of place refers to the spirit of a place. It could be defined as follows:

- Place Structure refers to the arrangement of physical place making elements within a unique structure that can be easily legible and remembered.
- The Sense of place is the subjective meanings attached to a certain area by individuals or groups and is closely linked to its history, culture, activities, ambience and emotions the place creates.

a) Implications for the Proposed Development

- If planned correctly the proposed development could enhance the sense of place of the study area.

b) Additional Information or Studies required for the EIA Phase

- Mitigation measures must be supplied for the visual impacts during the EIA Process; and
- Architectural guidelines must be based on the mitigation measures supplied in the EIA Report.

### **6.3.5 Demography**

Demography is the statistical study of human populations: their size, composition, and how they change through the interplay of fertility, mortality, and migration. The pure study of the human population in the surrounding area will be given in detail in the EIA, should it be required to conduct a full EIA study.

a) Implications for the Proposed Development

Not significant, the proposed development site is located within an protected area and thus local people had no access to the site neither for grazing of livestock or for veld food collection.

### **6.3.6 Services**

The service of an electrical engineer will be required once the detailed design of the lodge and Campsite, the support infrastructure is all in place to determine the energy needed for the site.

#### **6.3.6.1 Water Supply**

According to the project engineers, water for the lodge and in the surrounding areas is to be supplied from the Kavango river. The water is purified at most of the lodges. The developer is likely to use this water source as well, however, the developer has made provision to investigate the alternative to utilise ground water and other available water resources that could become the preferred alternative if no permission to use river water cannot be obtained.

A suitably qualified geo-hydrologist was appointed and confirmed that there are two other water supply possibilities. The first alternative is to obtain water from the river channel, which falls under the jurisdiction of the water affairs under the Ministry of Agriculture and Land Reform. Another possible water source is the ground water resource, which proved to be more than sufficient to cater in the water requirements of both development site. The water quality of the ground water is also regarded as suitable for human consumption and no specific treatment of the water is required.

#### **6.3.6.2 Sewage**

The team is undertook a study around the site and found out that the site has an old sewer system which is still intact and in good condition. See pictures below:



**Image 6-1:** Old Sewer System at the Project Site

Having this sewage plant on site, the developer is undertaking a structural assessment with a civil engineer to determine the strength and suitability to use the sewer plant, and should the capacity and the structure be suitable, the developer plan to upgrade and if it's has the capacity can accommodate the additional sewage flow generated by the proposed Development. The sewage from the development will flow to the existing pump chamber and then be pumped to the treatment plant. A Detail write up on the above is being accessed and can be submitted during the EIA phase, if we reach to that stage to determine the capacity of the existing system and upgraded if necessary.

The Developer therefore decided to also investigate other viable sewer alternatives for the development. The sewer alternative will be to establish an on-site sewer treatment facility in the north-eastern corner (the lowest point) of the study area. The sewer plant will be implemented in modules and if required, it can easily be upgraded to also accommodate the sewer generated by the proposed Lodge site.

The appointed civil engineer confirmed that it will be possible to supply an on-site sewer treatment plant/ package plant that will be able to accommodate the sewage generated by both the Lodge and Camping site.

It will furthermore be possible to implement the on-site sewer facility in modules. The proposed facility will be located to the east of the study area (in the north-eastern corner of development

site) at the lowest point. The positioning of the proposed plant in the lowest section of the two development sites will allow for the natural gravitation of sewer.

#### **6.3.6.3 Storm water**

Details of the storm water management plan to be supplied during the EIA process as indicated in the Plan of Study for EIA. All external storm water pipes and channels must be indicated on plans for purpose of the EIA process. Details regarding areas that will be affected by the storm water management measures must be implemented to be supplied during the EIA process.

#### **6.3.6.4 Solid Waste and Gaseous Emissions**

The solid waste generated by the proposed development will be removed from the Lodge site to the Local Authority. The Divundu Town Local Authority confirmed that they have a permitted landfill site and has the capacity to accommodate the amount of waste to be generated by the proposed development. More details regarding this will be supplied during the EIA phase. No gaseous emissions will be generated by the development.

#### **6.3.6.5 Electrical Services**

There is an Nampower/Nored connection point at the New MEFT park management Station. Nampower/Nored Power Lines run to the east, and north of the study area and there is an Nampower/Nored servitude close by the study area. Nored confirmed that they will be able to supply the development with electricity. All the electrical reports and inputs will be attached as part of the EIA Report should that option be the best.

The **alternative source** of energy and the most preferred is the Solar system, with a back-up centrifugal dynamo water system for battery charging overnight.

#### **6.3.6.6 Additional Information**

Additional Information or Studies required for the EIA Phase include:

- A detailed plan for water and sewerage reticulation will be included in the EIA report;
- A Storm Water Management Pan must be compiled and submitted to the MEFT for approval; to obtain their comments on the plan and will be included in the EIA report as indicated in the Plan of Study for EIA; and
- Detailed services reports and services alternatives (including electrical reports) must be included as part of the EIA Report.

### 6.3.7 Archaeological/Cultural Historical

According to the qualified specialist no historically significant features, sites or artefacts of cultural significance were observed on site. It is true that some military structures are erected in the study area. The specialist confirmed that some of the structures are older than 60 years, however, preservation of artifacts and any other important discoveries will be documented and reported.

#### a) Preliminary Issues Identified

There are no significant issues that have been identified. NHC however did not requested that a Phase 1 Cultural and Historical Impact Study be conducted of the study area, but this will be done. Some structures and features of the military ruins in the study area are most probably older than 60 years.

#### b) Additional Information or Studies required for the EIA Phase

- The Phase 1 Cultural and Historical survey will be conducted. At this stage no further study is expected to be conducted as we await comments from DEAF in this study.

## 6.4 Need and Desirability for the Proposed Land Use

### 6.4.1 Need

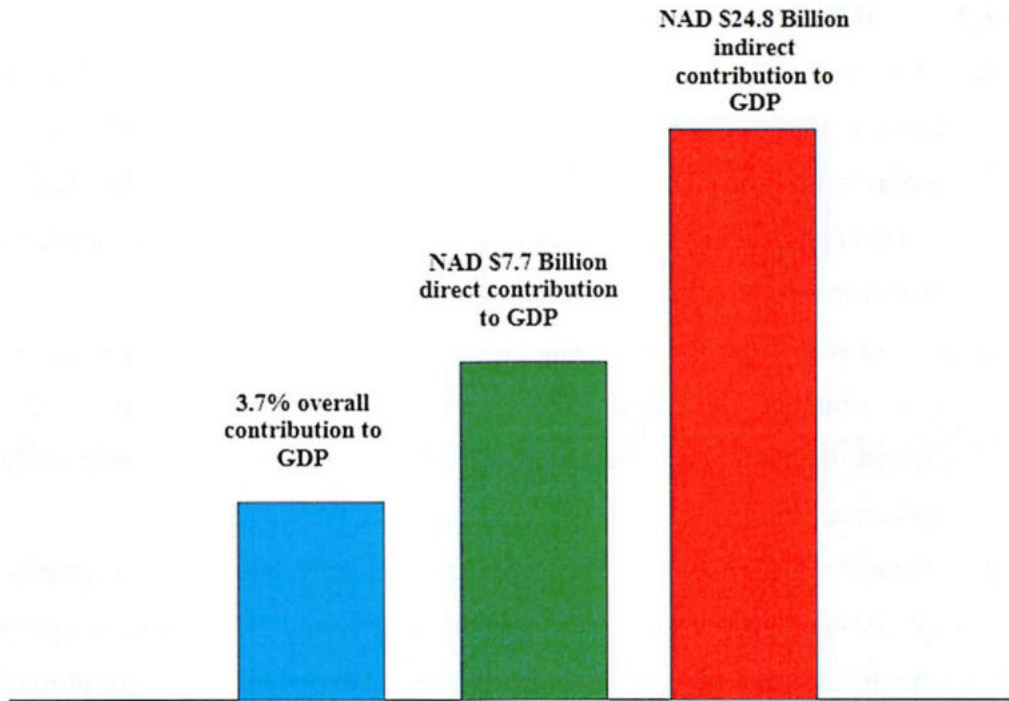
Recent market studies have shown that, the Lodge developments are in increasing demand especially in this area of Bwabwata National Park which is sandwiched by two international borders of Angola on the Northern side and Botswana on the Southern and Eastern. Nyime Safari Lodge *ta* Buffalo Lodge will be offering a exclusive environment to its client tell that is key to the industry, and will be a game changer in the tourism industrial in the surrounding. Therefore, the establishment of the lodge addresses both local and national needs, providing tangible socio-economic benefits to the local community while contributing significantly to Namibia's broader economic objectives through the growth of the tourism sector.

#### 6.4.1.1 National Level:

1. *Tourism as a Significant Contributor to GDP* – As shown in the figure below tourism is a cornerstone of Namibia's economy, contributing 3.7% to the GDP in 2023. The direct contribution of NAD \$7.7 billion and the indirect contribution of NAD \$24.8

billion underscore the importance of the tourism sector in driving economic growth and employment.

**Year 2023 Tourism Contribution to Namibia’s Gross Domestic Product (GDP)**



**Figure 6-3:** Year 2023 Tourism Contribution to GDP

2. *Foreign Exchange Earnings* - the lodge, by attracting international and domestic tourists, contributes to the generation of foreign exchange earnings. This influx of foreign currency has positive implications for the country's balance of payments and overall economic stability.
3. *National Employment* - The tourism sector, including the lodge, plays a pivotal role in national employment. Job creation within the industry extends beyond lodge operations to encompass various services such as transportation, retail, and local crafts.
4. *Conservation Funding* - Lodges often contribute to conservation funds through park fees and direct donations. These funds support wildlife conservation initiatives, habitat protection, and the overall management of national parks, including Bwabwata National Park.
5. *Cultural Promotion* - The lodge project, with its emphasis on local cultures and heritage, aligns with national goals of cultural promotion and preservation. It contributes to showcasing Namibia's rich cultural diversity to a global audience.

6. *Enhanced Global Image* - A well-managed and sustainable lodge in a national park enhances Namibia's global image as a responsible and eco-friendly tourism destination. This positive image attracts environmentally conscious travellers and aligns with international tourism trends.

#### 6.4.1.2 Local Level

1. *Employment Opportunities* - The establishment of the lodge within the Evergreen Caprivi Strip is anticipated to generate a significant number of employment opportunities for local residents. Direct employment within the lodge, as well as indirect opportunities in associated services and industries, will contribute to livelihood improvement.
2. *Economic Diversification* - The project supports economic diversification within the local community by introducing a new source of revenue. As tourism-related activities expand, the community becomes less reliant on a single economic sector, enhancing resilience.
3. *Cultural Preservation* - The lodge project can incorporate elements of cultural preservation, showcasing local traditions, arts, and crafts. This integration not only attracts tourists interested in authentic cultural experiences but also promotes pride and preservation of local heritage.
4. *Infrastructure Development* - The establishment of the lodge may lead to improved infrastructure, benefiting the local community. Upgraded roads, utilities, and other amenities can enhance accessibility, not only for lodge operations but also for the convenience of nearby residents.
5. *Education and Training* - The lodge can provide opportunities for local residents to gain skills and training in the hospitality and tourism sectors. This, in turn, builds a skilled workforce that can contribute not only to the lodge but to the broader tourism industry.

#### 6.4.2 Desirability

During the evaluation of the sites Nyime Safari Lodges cc identified that study area is ideal for a Tourism facilities (Lodge and Campsite), the excellent location of the study area and many other factors earmarked the study area as ideal for the development. These factors included inter alia the following:



- A suitable land parcel is available for the Development together with ample parking, movement, landscaping and associated facilities;
- Geographically the site is well located with regards to the existing road network within the Park, and other facilities and the trade area;
- Topographically the sites is ideal for development and the provision of services.;
- The sites is well located with regards to main roads, accesses and public transport;
- The site enjoys a high level of exclusivity, peace and tranquility;
- The site is accessible with regards to its trade area;
- Subject to the required mitigation measures no geo-technical problems exist that could hamper development; and
- The proposed land uses are compatible with the existing surrounding land uses and will not impact negatively on the immediate surroundings of the Protected area.

**a) Preliminary Issues Identified**

- Impacts of the proposed development of the infrastructure of the area;
- Rates and taxes payable to the authorities;
- Upgrading of the existing buildings (Old military ruins);
- The establishment of high standard medical facilities;
- The provision of a Lodge in the area;
- Impacts on the values of the surrounding settlement;
- Impacts of the proposed new lodge and Campsite on the other businesses in Divundu or Bwabwata National Park;
- Job creation;
- Compatibility of the proposed land-use with the protected area;
- Geotechnical conditions; *Geotechnical engineering is the study of the behaviour of soils under the influence of loading forces and soil-water interactions. This knowledge is applied to the design of foundations, retaining walls, earth dams, clay liners, and geosynthetics for waste containment.*
- Need and desirability of the proposed land-use; and
- Economic viability of the proposed land-use.

**b) Additional Information or Studies required for the EIA Phase**

- Identified impacts to be discussed in detail as part of the EIA; and
- A Market Research Study must be conducted and included as part of the EIA.

## 6.5 Institutional (Legal Framework)

The justification for the proposed Buffalo Lodge can be supported by referencing the Institutional Framework Documents that pertain to the study area. The legal framework plays a pivotal role in shaping and guiding the Environmental Impact Assessment (EIA) process, ensuring that development projects adhere to environmental regulations and standards. In the context of the EIA report, it is essential to delve into the legal parameters and obligations governing the proposed project. This section will provide an overview of relevant national and local environmental laws, regulations, and policies that impinge on the project. Understanding and compliance with this legal framework, aims to foster sustainable development, mitigate potential environmental impacts, and contribute to the overall well-being of the community and ecosystem.

### 6.5.1 International Level

Relevant International Conventions to which Namibia is party include

- Convention relative to the Preservation of Fauna and Flora in their natural state, 8 November 1993 (London);
- Convention on Biological Diversity, 1995 (provided and added stimulus for a re-examining and harmonization of its activities relating to biodiversity conservation. This convention also allows for the in-situ and ex-situ propagation of gene material);
- Agenda 21 adopted at the United Nations Conference on Environment and Development (UNCED) in 1992.

### 6.5.2 National Level

- a) **National Policy on Tourism for Namibia** - The National Policy on Tourism for Namibia aims to provide a framework for the mobilisation of tourism resources to realise long term national goals defined in Vision 2030 and the more specific targets of the Third National Development Plan, namely, sustained economic growth, employment creation, reduced inequalities.
- b) **The Environmental Management Act, 2007 (EMA) and the EIA Regulations (GN 29 of 2012)** - The EMA and its regulations cover the management of the environment, EIAs, consultations with stakeholders, and the monitoring of impacts on the environment caused by developments. An ECC is compulsory for any activities or projects which have or might have an environmental impact, such as this project.

- c) **The National Heritage Act, 2004** - Places and objects of heritage significance are protected under the Act, including aesthetic, archaeological, architectural, paleontological, cultural, historical, scientific, and spiritual resources. Heritage Impact Assessments provide the National Heritage Council (NHC) with information to understand the types of heritage resources found in a project area, as well as the likely impact of a proposed activity) on the integrity of any heritage resources protected in terms of the Act. A permit from the NHC is required before any place or object of heritage significance may be disturbed or relocated.
- d) **The Forest Act, 2001** - Protected plant species may only be removed after obtaining a permit. This project: no plants will be damaged or removed.
- e) **Namibia Tourism Board Act, 2000** - This act provides for the registration and grading of accommodation establishments and regulates matters incidental to the operation of tourism activities. The Proponent should ensure that the lodge is registered prior to the operational phase.
- f) **Products and Energy Act, 1990** - If more than 600 litres of fuel will be stored on site, a license must be obtained from MME. The project, on average is anticipated to use less than 600litres of fuel.
- g) **The Soil Conservation Act, 1969** - The prevention and control of soil erosion, and the protection, improvement and conservation of soil, vegetation and water sources are governed by this Act. During project operations the contamination of soil can be avoided by following the provisions in the EMP, and the removal of plant cover will be minimal.
- h) **The Water Act, 1956** - This Act governs the use, allocation, control and conservation of surface and groundwater, as well as the development of water supply infrastructure and water pollution. The Department of Water Affairs should be informed if water will be abstracted for any purpose other than domestic use, and a permit must be obtained if wastewater treatment facilities are being developed. It is the understanding of the EP, that an abstraction permit is not needed for the project because; ( a) the site is not located in a subterranean water control area, (b) no irrigation will take place, and (c) water will be used exclusively on the property and not sold or given to anyone else.
- i) A new act for governing water resources, the Water Resources Management Act, 2013, has been promulgated but not been implemented yet, and the 1956 Act remains in effect.

### 6.5.3 Ordinances

- a) **Atmospheric Pollution Prevention Ordinance, 1976** (as amended) - This Ordinance regulates the prevention of pollution of the atmosphere. The project will result in dust generation mainly during the construction phase. This will be mitigated by implementing measures in the EMP.
- b) **The Nature Conservation Ordinance, 1975** - The NCO governs the conservation of wildlife and protected areas. It deals with game parks and reserves, hunting, problem animals and the protection of indigenous plants. Permits need to be obtained for the removal of protected plant species. The potential for incidental disturbance and death of plants and animals are mitigated in the EMP.
- c) **The Hazardous Substances Ordinance, 1974** - The Ordinance deals with the manufacture, sale, use, disposal and dumping of hazardous substances in so far as they present a health hazard to human beings. This project: the storage, use and disposal of swimming pool chemicals, housekeeping products, diesel and vehicle oil is relevant and dealt with in the EMP.

### 6.5.4 Project Level

The successful operation of the lodge necessitates a comprehensive approach, emphasizing the significance of an Integrated Environmental Management Plan (IEMP). This plan serves as a guiding framework, ensuring that the lodge's activities align with sustainable environmental practices, minimizing ecological impact, and fostering biodiversity conservation. Additionally, Infrastructure Provision and Service Delivery play a crucial role in creating a seamless and enjoyable experience for guests. Adequate infrastructure, such as well-maintained roads and utilities, enhances accessibility, ensuring the smooth functioning of lodge operations. Moreover, Community Participation and Intergovernmental Relations (IGR) are integral components for the lodge's success. Engaging with local communities ensures that their perspectives are considered, fostering positive relationships and promoting shared benefits. Collaborative efforts with relevant authorities through IGR further contribute to effective governance, enhancing the overall sustainability and positive impact of the lodge within the study area.

The Integrated Environmental Management Plan is to take into account the following:

- Environmental Report
- Disaster Management Plan

- Spatial Development Framework
- Land Use Management Systems

The Infrastructure Provision and Service Delivery plan will include:

- Water Master Plan
- Infrastructure Maintenance Plan
- Integrated Waste Management Plan
- Integrated Transport Plan

The Community Participation and IGR will consider the following:

- Community Participation Policy
- SDM Communication Strategy

## 6.6 Public Participation

Public Participation is a cornerstone of any Environmental Impact Assessment. The Principles of the National Environment Management Act, 1998 (Act No. 107 of 1998) govern many aspects of Environmental Impact Assessments, including Public Participation. These include provision of sufficient and transparent information on an on-going basis to the Stakeholders to allow them to comment and ensuring the participation of previously disadvantaged people, women and youth.

Effective public involvement is an essential component of many decision-making structures, and effective community involvement is the only way in which the power given to communities can be used efficiently. The Public Participation Process is designed to provide sufficient and accessible information to Interested and Affected Parties (I&AP's) in an objective manner to assist them to:

- Raise issues of concern and suggestions for enhanced benefits;
- Verify that their issues have been captured;
- Verify that their issues have been considered by the technical investigations; and
- Comment on the findings of the EIA;

### Key Stakeholders and affected parties

Interested and affected parties (I & AP's) representing the following sectors of the society were identified during the first public participation process (*refer to Annexure E(ii) for a complete I & AP is attached*):

- National and Local Government
- MEFT
- Local Lodges/Tourism business owner

- Park Management
- National Heritage Council

In terms of the Environment Management Act, 2007 (Act no. 7 of 2007) Stakeholders, I&AP's and DEAF were notified of the Environmental Evaluation Process through:

- 1) A site notice that was erected (at a prominent point on the study area) on 12 March 2024 (Refer to Annexure for proof of notice).
- 2) Notices were distributed to the surrounding land-owners and interested and affected parties by means of hand delivery and e-mail (Refer to Annexure for proof of public notice);
- 3) An advertisement was placed in the Daily newspaper on 12 March 2024 (Refer to Annexure E iii for proof of advertisement);
- 4) Only two persons requested to be registered as I&AP. (Refer to Annexure)
- 5) Comments were received by the Environmental Practitioner (refer to Annexure E)

## 7 CONCLUSION

The purpose of the Scoping Process was to do a Status Quo Analysis of the study area, to investigate the alternatives considered for the project, to identify the most significant environmental issues associated with the proposed project, to determine the impact of the proposed development on the social environment and to identify (already at an early stage) possible "fatal flaws" that could prevent the project from happening. The results of the preliminary investigation of possible issues that might affect the proposed development and alternatives were used in producing a preliminary conceptual layout for the proposed Lodge and campsite Development. This concept layout will be assessed (mainly through the overlay method) during the EIA process.

It is also important to note that the Scoping Process identified other crucial issues that must be addressed in more detail during the EIA process. However, the issues listed will be assessed in more detail during the EIA phase and detailed mitigation measures to reduce or prevent the issues/impacts will be supplied and incorporated as part of an Environmental Management Plan (EMP) for the preconstruction, construction and/or operational phases of the project.

From the findings of this Environmental Scoping the following can be concluded:

- No "fatal flaws" or adverse impacts that cannot be mitigated are anticipated to be associated with the proposed development;

- The natural vegetation of the study area has been removed by former agricultural activities and the study area cannot be connected to any natural open space systems in the surrounding area;
- The ecological potential and value of the study area is low;
- The proposed Development will promote sustainable development;
- The proposed Development cannot be regarded as urban sprawl;
- If well planned and managed, the proposed Development will act as attractive “eastern gateway” into Bwabwata National Park

## **8 RECOMMENDATION**

It is believed that both beneficial and adverse impacts were thoroughly assessed, the needs and the benefits for this project has been assessed so as to give it a go ahead. Further negotiations with the Local MEFT management with regards to services provision are recommended and the Local MEFT must confirm (during the EIA phase) whether they are in a position to allow for the use of old dead trees as ornaments for the lodge in phases.

Based on the above-mentioned information supplied and the conclusions that were made, it is suggested that the Scoping Report be accepted, that the Plan of Study for EIA be approved and that the applicant be allowed to commence with the EIA for the project.

The completed EIA must, amongst others, include the following information/comply with the following documents:

- The approved Plan of Study for EIA;
- The specialist reports listed by ECA in this Scoping Report;
- The specialist inputs as listed in the Plan of Study for EIA; and
- Additional specialist inputs and other relevant information listed by the relevant Authorities.

## **ALBERTINA .J.SIMON**

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*An enthusiastic, highly knowledgeable professional with a Bachelor's degree in Environmental Science  
And expert skills in environmental planning conservation laws, Health& Safety & consulting*

### **PROFESSIONAL SUMMARY**

- + Experienced in planning projects and managing resources that have positive impact on environment.
- + Skilled in providing environmental consulting to contractors and businesses of all sizes.
- + Demonstrated leadership skills with ability to coordinate large-scale projects and groups of people.
- + Able to control invasive species, manage forests, assemble field data equipment, and collect samples.
- + Proven ability to write environmental documents and reports collected from field data and lab tests. +outstanding organizational, interpersonal, public speaking, presentation, and teaching skills.

### **SKILLS & ACCOMPLISHMENTS**

#### **Environmental Planning & Project Management**

Worked on developing health and safety modules for different companies

- Contacted research study on waste &sewage management systems, nature conservation.
- Evaluated and measured air samples using lab techniques to determine legal limits of air quality.
- Consulted clients on industrial hygiene from collections of airborne pollutants. .

#### **Land Conservation & Resource Development**

- Contacted a research study on environmental air pollution and water born diseases
- Enhanced landscape by removing nuisance vegetation and introducing beneficial trees, grass, and soil.
- Carried out an environmental pollution and nature conservation awareness campaign. **Environmental Law & Regulations**
- Informed clients on legal standards, mitigation techniques.
- Applied in environmental planning projects and land conservation efforts, federal and state conservation laws, **Specialized Training & Abilities**
- **Attended different seminars on environmental sustainable development ,environmental management and nature conservation(JSS U)**
- Environmental Impact Assessment, Soils, and Advanced Environmental Science Writing (JSS U)
- Conducted training classes and educational programs for department staff and students (JSS U).

### **PROFESSIONAL EXPERIENCE**

#### **EIA PRACTITIONER**

#### **HEALTH & SAFETY TRAINER**

2017 – Present

### **EDUCATION**

JSS UNIVERSITY INDIA

**B .SC. Environmental Science**

### **COMPUTER SKILLS**

Micro soft word

**CETIFICATE IN BUSSINESS INFORMATION SYSTEM**

**PROGRAMING**

#### **References**

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