

Environmental and Social Impact Assessment for the proposed Construction and Operation of a lodge on Portion A of Remainder of Ptn 2 (Sonnleiten) of Farm Ondekaremba No.78 located east of Windhoek, Khomas Region

ENVIRONMENTAL ASSESSMENT REPORT: Final

ECC Application Reference: APP- 006373

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EXECUTIVE SUMMARY

Satinbird Trading Enterprises J.V. FQ Investments Number One CC (The Proponent), plans to construct and operate a lodge on Portion A of Remainder of Ptn 2 (Sonnleiten) of Farm Ondekaremba No. 78 (Coordinates: -22.52879, 17.38298). The proposed facility is situated about 32 km from Windhoek, Khomas Region. The proposed project is planned to cover a total surface area of about 491.2502 hectares (ha). Furthermore, the Proponent plans to construct lodges which will become the premier supplier of sustainable hospitality and tourism services near Windhoek, by providing high-quality accommodation and catering for the needs of international visitors providing a sustainable eco-tourism, and eco-friendly activities (i.e. excursions and camping).

Tourism and recreation facilities form part of the listed activities that may not be undertaken without an ECC under the Environmental Impact Assessment (EIA) Regulations. Subsequently, to ensure that the proposed activity is compliant with the national environmental legislation, the project Proponent, appointed an independent environmental consultant, Excel Dynamic Solutions (Pty) Ltd to undertake the required Environmental Assessment (EA) process and apply for the ECC on their behalf.

The application for the ECC was compiled and submitted to the competent Authority (Ministry of Environment, Forestry and Tourism (MEFT)). Upon submission of an Environmental Social and Environmental Impact Assessment (ESIA) Report and Draft Environmental Management Plan (EMP), an ECC for the proposed project may be considered by the Environmental Commissioner at the MEFT's Department of Environmental Affairs and Forestry (DEAF).

Brief Project Description

The proposed methods for the proposed development are divided into the following categories:

- 1. Pre-development (Site acquisition and Preparation) Phase:** This will involve the Proponent ensuring that the site for the proposed development is legitimately acquired from the relevant authority, and the land has been cleared in a legitimately manner by the appointed contractor in a sustainable and ecological manner, to erect site offices and construction equipment storage rooms, to enable the commencement of the construction phase of the proposed project.

This is also the phase where the Proponent ensure that utilities services for the proposed development are on site, if not available such need to be applied from the City of Windhoek.

- 2. Construction and Operational Phase:** This is the phase where the Proponent will conduct the construction activities of the proposed development which will be done by a qualified and experienced contractor/s by following the approved project architectural design of the project. The proposed development is planned to consist of lodges and associated facilities (*see chapter 2 for more details*). This is also the phase where quality checks of the buildings will be conducted by a qualified and experienced building evaluator. This will be done to ensure that the buildings are constructed in a qualitative manner.

Once the construction phase of the proposed project is completed, the proposed project will then be in full operation.

Public Consultation

Public Consultation Activities

Regulation 21 of the EIA Regulations details steps to be taken during a public consultation process and these have been used in guiding this process. The public consultation process assisted the Environmental Consultant in identifying all potential impacts and aided in the process of identifying possible mitigation measures and alternatives to certain project activities. The communication with I&APs about the proposed project was done through the following means and in this order to ensure that the public is notified and afforded an opportunity to comment on the proposed project:

- A Background Information Document (BID) containing brief information about the proposed facility was compiled and distributed by means of email to relevant Authorities, and upon request to all new registered Interested and Affected parties (I&APs).
- Project Environmental Assessment notices were published in *The Namibian newspaper and New Era Newspaper 15 & 19 September 2025*, briefly explaining the activity and its locality, inviting members of the public to register as I&APs and submit their comments/concerns.

- A consultation meeting and site visit was scheduled and held with the I&APs on the 24 of May 2024 on Portion A of Remainder of Ptn 2 (Sonnleiten) Of Farm Ondekaremba No.78 at 10h00.
- The issues and concerns raised were noted and used to form a basis for the ESIA Report and EMP.

Potential Impacts identified

The following potential positive and negative impacts are anticipated to occur during the construction and operational phase of the proposed development:

Positive impacts:

- Tourist enjoyment of the scenery, so there is pressure to conserve habitats,
- Creation of jobs for the locals,
- Help boost local economic growth,
- Contribution to regional economic development

Negative impacts:

- Land degradation and Biodiversity Loss
- Generation of dust
- Water Resources Use
- Soil & Water Resources Pollution
- Waste Generation
- Occupational Health & Safety risks
- Vehicular Traffic Use & Safety
- Noise & Vibrations
- Impacts on local Roads
- Social Nuisance: local property intrusion & disturbance
- Social Nuisance: Job seeking & differing Norms, Culture & values

CONCLUSIONS AND RECOMMENDATIONS

The potential impacts that are anticipated from the proposed development were identified, described, and assessed. For the significant adverse (negative) impacts with a medium rating, appropriate management and mitigation measures were recommended for implementation by the Proponent, their contractors and project related employees.

The public was consulted as required by the EMA and its 2012 EIA Regulations (Section 21 to 24). This was done via the two local newspapers (New Era and The Namibian) used for this environmental assessment. A consultation through a face-to-face meeting with the I&APs on the Farm was conducted.

The issues and concerns raised by the registered I&APs formed the basis for this Report and the Draft EMP. The issues were addressed and incorporated into this Report whereby mitigation measures have been provided thereof to avoid and/or minimize their significance on the environmental and social components. Most of the potential impacts were found to be of medium rating significance. The effective implementation of the recommended management and mitigation measures will particularly see a reduction in the significance of adverse impacts that cannot be avoided completely (from medium rating to low). To maintain the desirable rating, the implementation of management and mitigation measures should be monitored by the Proponent directly, or their Environmental Control Officer (ECO) is highly recommended. The monitoring of this implementation will not only be done to maintain the reduced impacts' rating or maintain a low rating but to also ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed right away too.

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Appendix D: Proof of Public Consultation

Appendix E: Consent and Lease agreement

LIST OF ABBREVIATIONS

Abbreviation	Meaning
BID	Background Information Document
CV	Curriculum Vitae
DEAF	Department of Environmental Affairs and Forestry
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EDS	Excel Dynamic Solutions
ESIA	Environmental and Social Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
I&APs	Interested and Affected Parties
MEFT	Ministry of Environment, Forestry and Tourism
PPE	Personal Protective Equipment
Reg	Regulation
S	Section
TOR	Terms of Reference

DEFINITION OF TERMS

Accommodation	Facilities for overnight stay and the services commonly associated therewith, including facilities provided on any premises where camping in caravans, tents or similar devices is allowed.
Alternative	A possible course of action, in place of another that would meet the same purpose and need of the proposal.
Baseline	Work done to collect and interpret information on the condition/trends of the existing environment.
Biophysical	That part of the environment that does not originate with human activities (e.g. biological, physical and chemical processes).
Cumulative Impacts/Effects Assessment	In relation to an activity, means the impact of an activity that in it may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.
Ecological Processes	Processes play an essential part in maintaining ecosystem integrity. Four fundamental ecological processes are the cycling of water, the cycling of nutrients, the flow of energy and biological diversity (as an expression of evolution).
Environmentally Sustainable Tourism	The development and operation of the tourism industry in such a manner that the assets and attractions on which the industry depends, are protected, and in a particular the safeguarding and maintaining of ecological processes, biodiversity, aesthetic and cultural qualities for the long-term benefit of the tourism industry and Namibia's people.

Environment	As defined in Environmental Management Act - the complex of natural and anthropogenic factors and elements that are mutually interrelated and affect the ecological equilibrium and the quality of life, including – (a) the natural environment that is land, water and air; all organic and inorganic matter and living organisms and (b) the human environment that is the landscape and natural, cultural, historical, aesthetic, economic and social heritage and values.
Environmental Management Plan	As defined in the EIA Regulations (Section 8(j)), a plan that describes how activities that may have significant environments effects are to be mitigated, controlled and monitored.
Interested and Affected Party (I&AP)	In relation to the assessment of a listed activity includes - (a) any person, group of persons or organization interested in or affected by an activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity.
Significant Impact	Means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment
Mitigate	Practical measures to reduce adverse impacts
Fauna	All of the animals found in a given area.
Flora	All of the plants found in a given area.
Mitigation	The purposeful implementation of decisions or activities that are designed to reduce the undesirable impacts of a proposed action on the affected environment.
Monitoring	Activity involving repeated observation, according to a pre-determined schedule, of one or more elements of the environment to detect their characteristics (status and trends).

Nomadic Pastoralism	Nomadic pastoralists live in societies in which the husbandry of grazing animals is viewed as an ideal way of making a living and the regular movement of all or part of the society is considered a normal and natural part of life. Pastoral nomadism is commonly found where climatic conditions produce seasonal pastures but cannot support sustained agriculture.
Proponent	Organization (private or public sector) or individual intending to implement a development proposal.
Public Consultation/Involvement	A range of techniques that can be used to inform, consult or interact with stakeholders affected by the proposed activities.
Terms of Reference (ToR)	Written requirements governing full ESIA input and implementation, consultations to be held, data to be produced and form/contents of the ESIA report. Often produced as an output from scoping.
Tourism	The activities of foreign visitors and Namibian residents travelling to and staying at places outside of their usual environment for not more than one year for the purposes of visiting, experiencing and enjoying Namibia's natural, social and self-constructed amenities, and for business and other purposes.
Tourist	Any person who travels to a destination away from his or her normal place of residence for recreational or business purposes.

1 INTRODUCTION

1.1 Project Background

Staninbird Trading Enterprises J.V. FQ Investments Number One CC (The Proponent), plans to construct and operate lodge on Portion A of Remainder of Ptn 2 (Sonnleiten) Of Farm Ondekaremba No.78 (Coordinates: -22.52879, 17.38298). The proposed facility is situated about 32 km from Windhoek, Khomas Region (**Figure 1**). The proposed project is planned to cover a total surface area of about 491.2502 hectares (ha). Furthermore, the Proponent plans to construct lodges which will become the premier supplier of sustainable hospitality and tourism services near Windhoek, by providing high-quality accommodation and catering for the needs of international visitors providing a sustainable eco-tourism, and eco-friendly activities (i.e. excursions and camping).

Tourism and recreation facilities form part of the listed activities that may not be undertaken without an Environmental Clearance Certificate (ECC). Thus, the proposed development is subjected to an ECC, to be issued by the Ministry of Environment, Forestry and Tourism (MEFT).

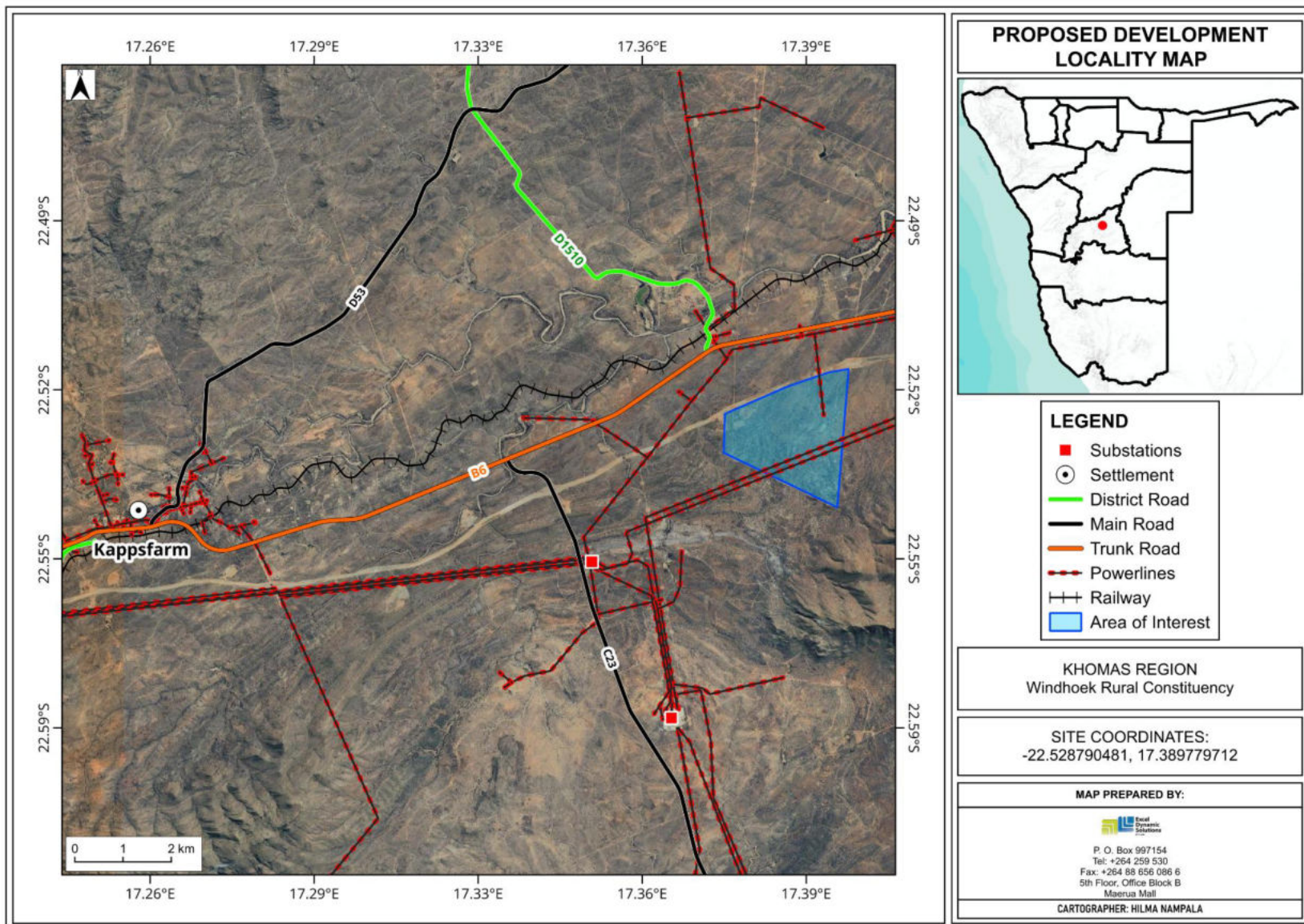


Figure 1: The locality map of the proposed project

1.2 Terms of Reference and Scope of Works

Excel Dynamic Solutions (Pty) Ltd (EDS) has been appointed by The Proponent to undertake an Environmental Assessment (EA), and thereafter, apply for an ECC for the proposed development. There were no formal Terms of Reference (ToR) provided to EDS by the Proponent. The consultant, instead, relied on the requirements of the Environmental Management Act (No. 7 of 2007) (EMA) and its Environmental Impact Assessment (EIA) Regulations (GN. No. 30 of 2012) to conduct the study.

The application for the ECC was compiled and submitted to the Competent Authority (Ministry of Environment, Forestry and Tourism (MEFT)), (**Appendix A**), as the environmental custodian for project registration purposes. Upon submission of an Environmental and Social Impact Assessment (ESIA) Report and Draft Environmental Management Plan (EMP), an ECC for the proposed development will be considered by the Environmental Commissioner at the MEFT's Department of Environmental Affairs and Forestry (DEAF).

1.3 Appointed Environmental Assessment Practitioner

To satisfy the requirements of the EMA and its 2012 EIA Regulations, The Proponent appointed EDS, to conduct the required EA process on their (Proponent's) behalf. The findings of the EA are incorporated into this report and the draft EMP – (**Appendix B**). These documents will be submitted as part of the ECC application to the Environmental Commissioner at the DEAF.

The ESIA project's consultation process and reporting are done by Mr. Silas David. Mr. Silas David CV is presented in **Appendix C**.

1.4 The Need for the Proposed Project

The Tourism sector is one of the largest economic contributor to the country's Gross Domestic Product (GDP), as it generates a substantial amount of jobs and is a valuable foreign exchange earner for the economy. Tourism can create direct and indirect income and employment effects to the vicinity and previously marginalized communities in the area, with the potential to aid with the poverty reduction targets. In addition, tourism forms the essence of some Namibia's

development plans, namely: National Development Plan 6 (NDP6) and Harambee Prosperity Plan (HPP). These plans are benchmarks on the ideal of vision 2030.

The proposed lodge and accommodation facilities is a unique project in terms of its ownership, the proposed project will be owned on Broad Base Public Private Partnership (BBPPP) which is in line with the National Development Goals of the Country.

2 PROJECT DESCRIPTION

The Proponent has obtained the right to build, operate, manage and maintain the proposed lodge and accommodation facilities. The proposed methods for the proposed project are divided into the following categories:

2.1 Pre-development (Site Preparation) Phase

This will include the Proponent ensuring that the site for the proposed project is legitimately acquired from the relevant authority, and the land has been cleared by the appointed contractor in a sustainable and ecological manner to erect site offices and construction equipment storage rooms, and to enable the commencement of the construction phase. This is also the phase where Proponent ensure that utilities services for the proposed development are on site if not available. **Figure 2** below shows a typical representation of a site establishment or preparation for the proposed development.

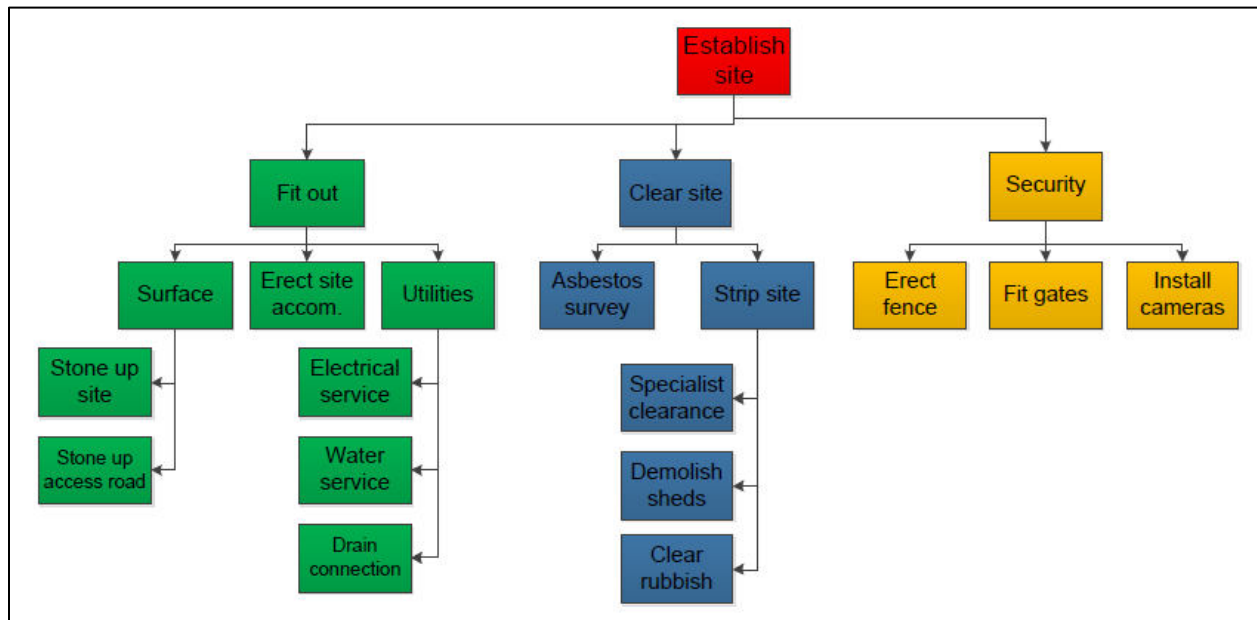


Figure 2: Typical example of the construction site preparation for the proposed project (source: <https://constructionfield.org/wbs-establish-construction-site/>)

2.2 Construction and Operational Phase

This phase will involve the construction of the proposed project by a qualified and experienced contractor/s through following the project building design of the proposed development (**Figure 3**). The construction of the proposed project will include the following:

Main building:

- Reception area with curio shop/area,
- Two admin offices,
- Restaurant with inside outside relationship to outgoing veranda
- Bar and lounge area with inside outside relationship to outgoing veranda,
- Kitchen including required dry and cold store area,
- Restrooms,
- Main Swimming pool

Guest Accommodation:**Type A – Standard bungalow:**

- Total of 6x Units
- Each have 1x bedroom including en-suite

Type B – Standard room:

- Total of 12x Units
- Each unit has 1x bedroom including en-suite.

Type C – Self-catering bungalow / family room:

- Total of 4x Units
- Each unit has 2 bedrooms including 1x shared bathroom,

The site will also consist of public parking spaces, and staff accommodation as outlined figure 3 below. Additionally, this is also the phase where quality check of the buildings will be conducted by a qualified building evaluator at various stages of the construction phase. Once the construction phase of the project is completed, the proposed project will then be in operation.

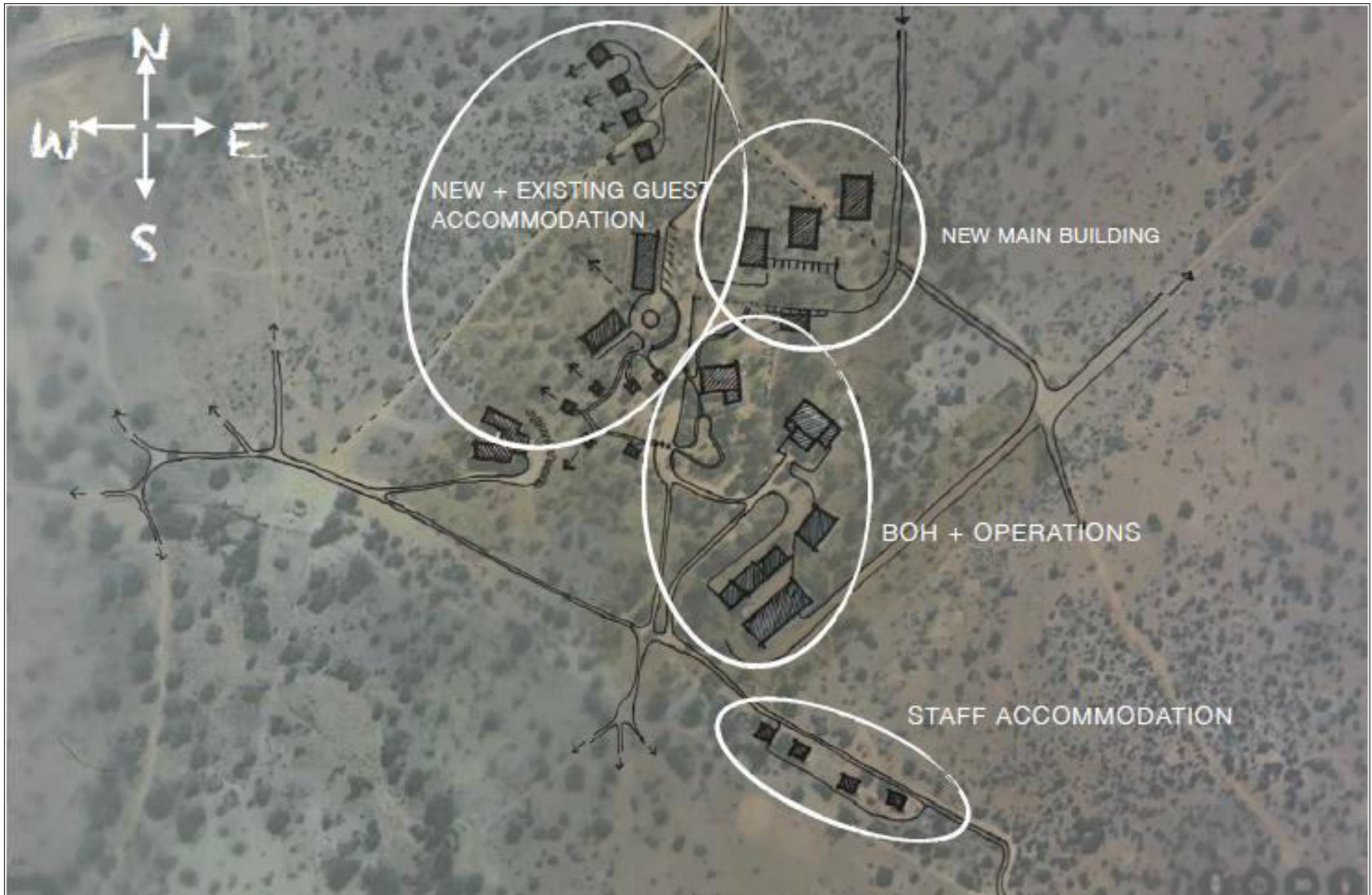


Figure 3: Preliminary Plan of the proposed development

Other aspects involved during the construction phase include:

2.2.1 Accessibility to Site

The proposed development is accessible via the B1 road from Windhoek. Therefore, project related vehicles will be using these existing roads to access the site. It is also anticipated that, if necessary, onsite new tracks to the site may be created. The Proponent may need to do some upgrade on the site access road to ensure that it is fit to accommodate project related vehicles, such as heavy trucks that will supply building equipment and materials.

2.2.2 Building Materials

Building materials such as bricks, stones, cements, poles and aluminum roofing are envisioned to be used during the construction phase of the project. Furthermore, eco-friendly materials such as thatch are anticipated be used during the construction phase of the proposed development.

Building sand will be sourced from a supplier is anticipated for the proposed development.

2.2.3 Waste Management

The site will be equipped with secured waste bins for each type of waste (i.e., domestic, and construction waste). Depending on the amount generated, waste will be sorted and collected weekly or monthly and taken to the nearest certified landfill site. An agreement will need to be reached with different waste management facility operators/owners and authorization or permits will be obtained prior to utilizing these facilities.

Sewage Waste Management: During the operations, the effluent from the tricking plant for the proposed development is anticipated to occur and this will be used for the irrigation of grasses and trees around the buildings of the proposed development.

Solid Waste Management: Solid waste for the proposed development will be managed with reverence to the moralities outlined in the hierarchy of waste prevention, re-use and recycle, where waste minimisation and recycling is ideal to waste treatment and disposal.

2.2.4 Health and safety

Adequate and appropriate Personal Protective Equipment (PPE) will be provided to every project personnel while on and working at site. A minimum of two first aid kits will be readily available on site to attend to potential minor injuries.

Fire management: A minimum of basic firefighting equipment, i.e., two fire extinguishers will be readily available in vehicles, at the working sites and camps.

On-site Workers' Safety: Adequate and appropriate Personal Protective Equipment (PPE) will be provided to every project personnel while on and working at site. A minimum of two first aid kits will be readily available on site to attend to potential minor injuries.

2.2.5 Accommodation

The working personnel will be accommodated on-site and/or workers will be commuting from Windhoek from and to site daily. Construction activities will take place during daytime only.

2.3 Construction Closure Phase

Once the construction phase of the proposed project is completed, the proponent will be required to dismantle and remove the site offices and campsites that were erected during the construction phase of the proposed project. Furthermore, this phase also involves the dismantling all the construction related equipment and the removal of building materials that were leftover during the construction phase of the proposed development.

3 PROJECT ALTERNATIVES

Alternatives are defined as the “different means of meeting the general purpose and requirements of the activity” (EMA, 2007). This section will highlight the different ways in which the project can be undertaken and to identify the alternative that will be the most practical, but least damaging to the environment is identified.

Once the alternatives have been established, these are examined by asking the following three questions:

- What alternatives are technically and economically feasible?
- What are the environmental effects associated with the feasible alternatives?
- What is the rationale for selecting the preferred alternative?

The alternatives considered for the proposed development are discussed in the following subsections.

3.1 Alternatives Considered

The environmental assessment for the proposed development has accommodated the ordeal which might occur into consideration. This includes the review of the likelihood of the construction activities. It should be noted that the best alternative option shall be identified to ensure the impacts on the environment and society are minimized. Furthermore, the supplemental construction activities may be considered as another alternative to cater for any impacts that are of serious concern.

4 LEGAL FRAMEWORK: LEGISLATION, POLICIES AND GUIDELINES

This Chapter outlines the regulatory framework applicable to the proposed project. **Table 1** Provides a list of applicable and relevant framework for the project.

4.1 Namibia Tourism Board Act (No. 21 of 2000)

The core objective of this act is to establish the Namibia Tourism Board and to provide for its functions, to provide for the registration and grading of accommodation establishments, to provide for the declaration of any sector of the tourism industry as a regulated sector and for the registration of business falling within a regulated sector; and to provide for matters incidental thereto.

4.2 The Environmental Management Act (No. 7 of 2007)

This ESIA was carried out according to the Environmental Management Act (EMA) and its Environmental Impact Assessment (EIA) Regulations (GG No. 4878 GN No. 30).

The EMA has stipulated requirements to complete the required documentation to obtain an Environmental Clearance Certificate (ECC) for permission to undertake certain listed activities. These activities are listed under the following Regulations:

- Tourism Development Activities- The construction of resorts, lodges, hotels or other tourism and hospitality facilities.
- Other activities- Construction of cemeteries, camping, leisure and recreation sites.

The Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878) detail requirements for public consultation within a given environmental assessment process (GN 30

S21). The EIA regulations also outline the required details of a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).

Other legal obligations that are relevant to the proposed activities are presented in Error! Reference source not found..

Table 1: Applicable local, national and international standards, policies and guidelines governing the proposed development

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
The Constitution of the Republic of Namibia, 1990 as amended	The Constitution of the Republic of Namibia (1990 as amended) addresses matters relating to environmental protection and sustainable development. Article 91(c) defines the functions of the Ombudsman to include: “...the duty to investigate complaints concerning the over-utilisation of living natural resources, the irrational exploitation of non-renewable resources, the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia...”	By implementing the environmental management plan, the establishment will be in conformant to the constitution in terms of environmental management and sustainability. Ecological sustainability will be main priority for the proposed development.
Health & Safety Regulations, 10th Draft	Makes provision for the health and safety of persons employed or otherwise present in the development area. These deal with among other matters; clothing and devices; design, use, operation, supervision and control of machinery; fencing and guards; and safety measures during repairs and maintenance.	The Proponent should comply with all these regulations with respect to their employees.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3(2)(b) states that “No person shall possess [sic] or store any fuel except under authority of a license or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area”.	The Proponent should obtain the necessary authorization from the Ministry of Industries, Mines and Energy for the storage of fuel on-site.
The Regional Councils Act (No. 22 of 1992)	This Act sets out the conditions under which Regional Councils must be elected and administer each delineated region. From a land use and project planning point of view, their duties include, as described in section 28 “to undertake the planning of the development of the region for which it has been established with a view to physical, social and economic characteristics, urbanisation patterns, natural resources, economic development potential, infrastructure, land utilisation pattern and sensitivity of the natural environment.	The relevant Regional Councils are considered to be I&APs and must be consulted during the Environmental Assessment (EA) process. The project site falls under the Khomas Regional Council.
Local Authorities Act No. 23 of 1992	To provide for the determination, for purposes of governance, of local authority councils; the establishment of such authority councils; and to define the powers, duties and functions of authority councils; and to provide for incidental matters.	The City of Windhoek is the responsible local Authority of the area therefore they should be consulted.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Water Act 54 of 1956	The Water Resources Management Act 11 of 2013 is presently without regulations; therefore, the Water Act No 54 of 1956 is still in force: Prohibits the pollution of water and implements the principle that a person disposing of effluent or waste has a duty of care to prevent pollution (S3 (k)). Provides for control and protection of groundwater (S66 (1), (d (ii))). Liability of clean-up costs after closure/abandonment of an activity (S3 (l)). (l)).	The protection (both quality and quantity/abstraction) of water resources should be a priority.
Water Resources Management Act (No 11 of 2013)	The Act provides for the management, protection, development, use and conservation of water resources; and provides for the regulation and monitoring of water services and to provide for incidental matters. The objects of this Act are to: Ensure that the water resources of Namibia are managed, developed, used, conserved and protected in a manner consistent with, or conducive to, the fundamental principles set out in Section 66 - protection of aquifers, Subsection 1 (d) (iii) provide for preventing the contamination of the aquifer and water pollution control (Section 68).	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
National Heritage Act No. 27 of 2004	To provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.	The Proponent should ensure compliance with these Acts requirements. The necessary management measures and related permitting requirements must be taken. This done by the consulting with the National Heritage Council of Namibia.
The National Monuments Act (No. 28 of 1969)	The Act enables the proclamation of national monuments and protects archaeological sites.	
Soil Conservation Act (No 76 of 1969)	The Act makes provision for the prevention and control of soil erosion and the protection, improvement and conservation of soil, vegetation and water supply sources and resources, through directives declared by the Minister.	Duty of care must be applied to soil conservation and management measures must be included in the EMP.
Public Health Act (No. 36 of 1919)	Section 119 states that “no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”	The Proponent and all its employees should ensure compliance with the provisions of these legal instruments.
Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of labours.	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Road Traffic and Transport Act, No. 22 of 1999	The Act provides for the establishment of the Transportation Commission of Namibia; for the control of traffic on public roads, the licensing of drivers, the registration and licensing of vehicles, the control and regulation of road transport across Namibia's borders; and for matters incidental thereto. Should the Proponent wish to undertake activities involving road transportation or access onto existing roads, the relevant permits will be required.	Mitigation measures should be provided for, if the roads and traffic impact cannot be avoided, the relevant permits must be applied for.
Labour Act (No. 6 of 1992)	Ministry of Labour (MOL) is aimed at ensuring harmonious labour relations through promoting social justice, occupational health and safety and enhanced labour market services for the benefit of all Namibians. This ministry insures effective implementation of the Labour Act no. 6 of 1992.	The Proponent should ensure that the development do not compromise the safety and welfare of workers.

4.3 International Policies, Principles, Standards, Treaties and Conventions

The international policies, principles, standards, treaties, and conventions applicable to the project are as listed in **Table 2** below.

Table 2: International Policies, Principles, Standards, Treaties and Convention applicable to the project

Statute	Provisions	Project Implications
Equator Principles	A financial industry benchmark for determining, assessing, and managing environmental and social risk in projects	These principles are an attempt to: '...encourage the

Statute	Provisions	Project Implications
	(August 2013). The Equator Principles have been developed in conjunction with the International Finance Corporation (IFC), to establish an International Standard with which companies must comply with to apply for approved funding by Equator Principles Financial Institutions (EPFIs). The Principles apply to all new project financings globally across all sectors. Principle 1: Review and Categorization Principle 2: Environmental and Social Assessment Principle 3: Applicable Environmental and Social Standards Principle 4: Environmental and Social Management System and Equator Principles Action Plan Principle 5: Stakeholder Engagement Principle 6: Grievance Mechanism Principle 7: Independent Review Principle 8: Covenants Principle 9: Independent Monitoring and Reporting Principle 10: Reporting and Transparency	development of socially responsible projects, which subscribe to appropriately responsible environmental management practices with a minimum negative impact on project-affected ecosystems and community-based upliftment and empowering interactions.'
The International Finance Corporation	The International Finance Corporation's (IFC) Sustainability Framework articulates the Corporation's strategic commitment to sustainable development and is an integral	The Performance Standards are directed towards clients, providing guidance on

Statute	Provisions	Project Implications
(IFC) Performance Standards	part of IFC's approach to risk management. The Sustainability Framework comprises IFC's Policy and Performance Standards on Environmental and Social Sustainability, and IFC's Access to Information Policy. The Policy on Environmental and Social Sustainability describes IFC's commitments, roles, and responsibilities related to environmental and social sustainability. As of 28 October 2018, there are ten (10) Performance Standards (Performance Standards on Environmental and Social Sustainability) that the IFC requires a project Proponents to meet throughout the life of an investment. These standard requirements are briefly described below. Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts Performance Standard 2: Labour and Working Conditions Performance Standard 3: Resource Efficient and Pollution Prevention and Management Performance Standard 4: Community Health and Safety Performance Standard 5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way, including stakeholder engagement and disclosure obligations of the Client (Borrower) in relation to project-level activities. In the case of its direct investments (including project and corporate finance provided through financial intermediaries), IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced. IFC uses the Sustainability Framework along with other strategies, policies, and initiatives to direct the business

Statute	Provisions	Project Implications
	Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources Performance Standard 7: Indigenous Peoples/Sub-Saharan African Historically Undeserved Traditional Local Communities Performance Standard 8: Cultural Heritage Performance Standard 9: Financial Intermediaries (FIs) Performance Standard 10: Stakeholder Engagement and Information A full description of the IFC Standards can be obtained from http://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards?cq_ck=1522164538151#ess1	activities of the Corporation to achieve its overall development objectives.
The United Nations Convention to Combat Desertification (UNCCD) 1992	Addresses land degradation in arid regions with the purpose to contribute to the conservation and sustainable use of biodiversity and the mitigation of climate change. The convention objective is to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas to support poverty reduction and	The project activities should not be such that they contribute to desertification.

Statute	Provisions	Project Implications
	environmental sustainability United Nation Convention.	
Convention on Biological Diversity 1992	Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use. Promote the protection of ecosystems, natural habitats, and the maintenance of viable populations of species in natural surroundings.	Removal of vegetation cover and destruction of natural habitats should be avoided and where not possible minimised.
Stockholm Declaration on the Human Environment, Stockholm (1972)	It recognizes the need for: “a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.	Protection of natural resources and prevention of any form of pollution.

Relevant international Treaties and Protocols ratified by the Namibian Government

- Convention on International Trade and Endangered Species of Wild Fauna and Flora (CITES), 1973.
- Convention on Biological Diversity, 1992.
- World Heritage Convention, 1972.

5 ENVIRONMENTAL BASELINE

The baseline information presented below is sourced from a variety of sources including reports of studies conducted in the Khomas Region. Further information was obtained by the Consultant during the public consultation meeting and during the site visit.

5.1 Biophysical Environment

5.2 Climate

The Khomas Region is characterized with a semi-arid highland savannah climate characterized as very hot in summer and moderate dry in winter. Temperature has an average between 4 - 32 °C, with December being the hottest month and July the coldest. During the hottest month of the year (December) the average maximum temperatures are at about 30 - 32 °C. During the coldest month (July) the average minimum temperatures are 4 - 6 °C. Rainfall is variable and unpredictable, occurring mostly as thunderstorms, with an average rainfall between 350 – 400 mm per year, characterized by sporadic and unpredictable localized storm events between October and April. The relative humidity during the least humid months of the year (i.e. September and October) is around 10 - 20% and the most humid month is March with 70 - 80% humidity, (City of Windhoek, 2015).

5.3 Topography

The project area is located within the Khomas Hochland Plateau Landscape, the altitude ranges between 1 453 and 2559 m above sea level. The project area is surrounded by rolling hills with rivers that erode valleys (EDS, 2020). **Figure 4** below shows the elevation and landscape map.

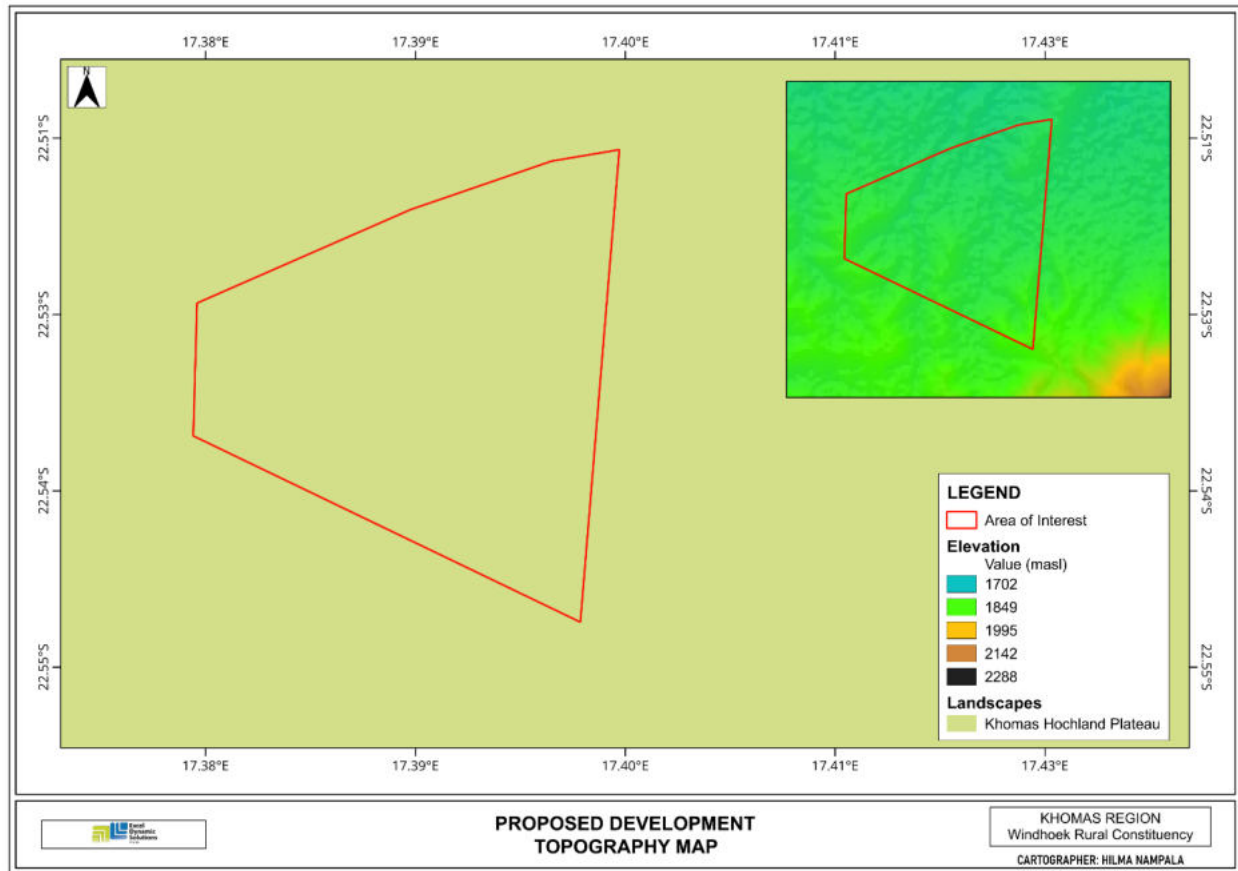


Figure 4: Shows the landscape and topographical of the project area

5.4 Geology and Soil

Geology

Geologically, the project area is covered by Kuiseb Schist, locally known as the “Windhoek Schist” and amphibolites. The site is overlain by the mixtile, marble, ortho-amphibolite, shale and quartz lithology (**Figure 5**).

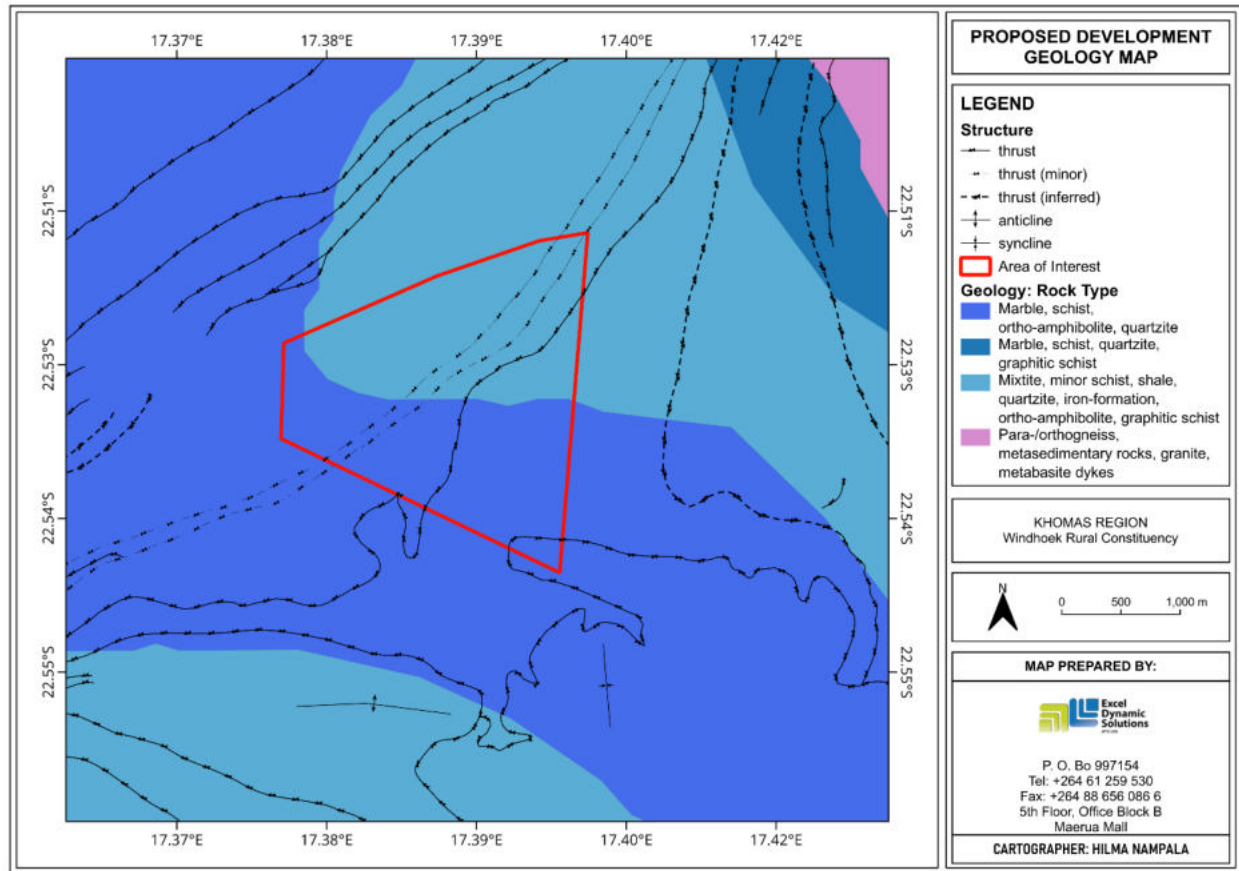


Figure 5: Shows the geology map of the area

Soil

The most dominant soils around the project area are Lithic Leptosols (**Figure 6**). Soil cover in the project area is extremely thin (measuring less than 0.5 m thick) and poorly developed. The schist that occurs in the upper 0.5 m is intermediate hard excavation (Gold, Muller and Mitlin, 2001). Due to its thin soil cover and hills the project site is prone to erosion. The site is overlain by light-brown thin sand and gravel, with sparsely to moderately distributed grass and shrub cover.

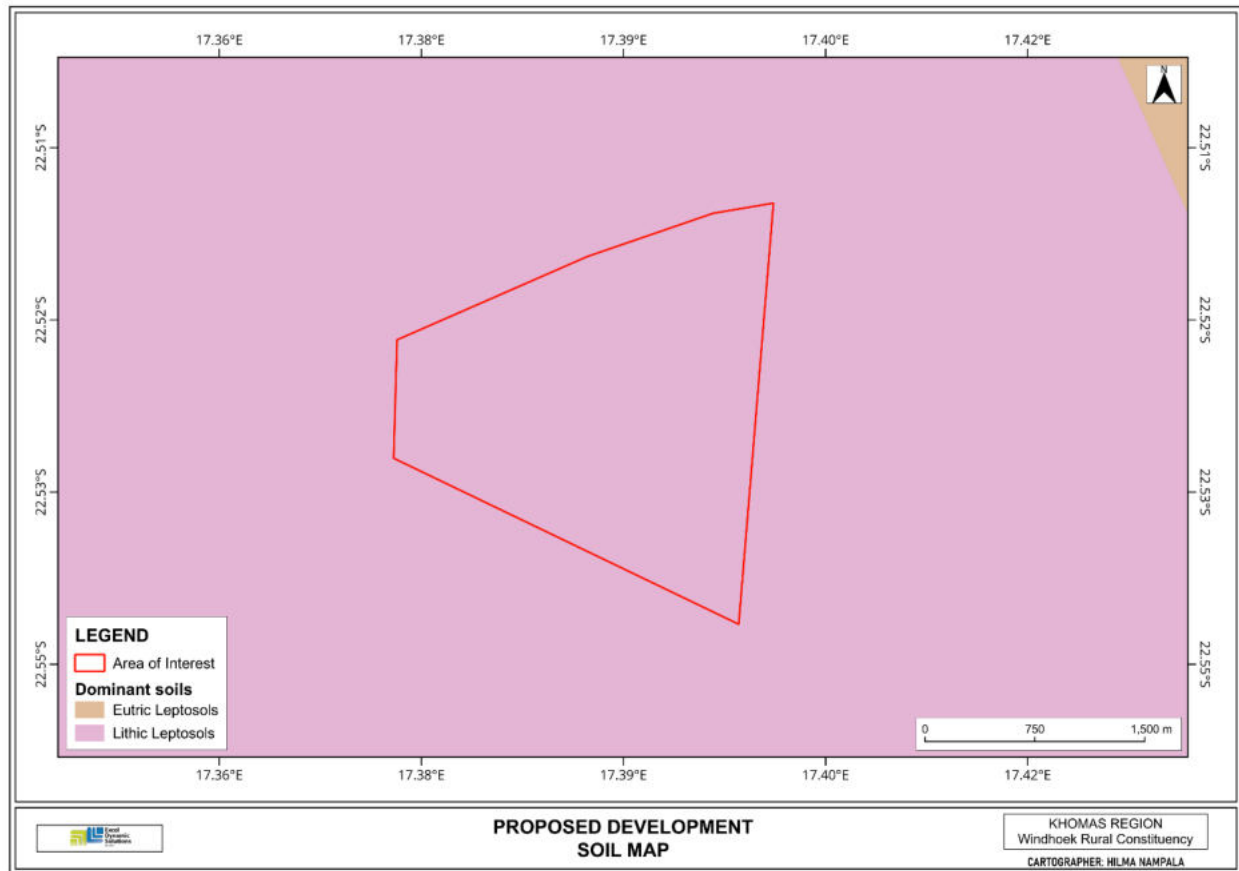


Figure 6: Shows the soils for the proposed project



Figure 7: Lithic soils found on site during site visit

5.5 Hydrology and Water Resources

Hydrologically, the development is mainly covered by fractured rock bodies which potentially host moderate groundwater. Due to fractured rock bodies covering the proposed development, the site is covered by high potential to groundwater pollution sensitivity. This the mitigation measures outlined in the EMP, must be adhered to. **Figure 8** shows the hydrology map of the lodge area.

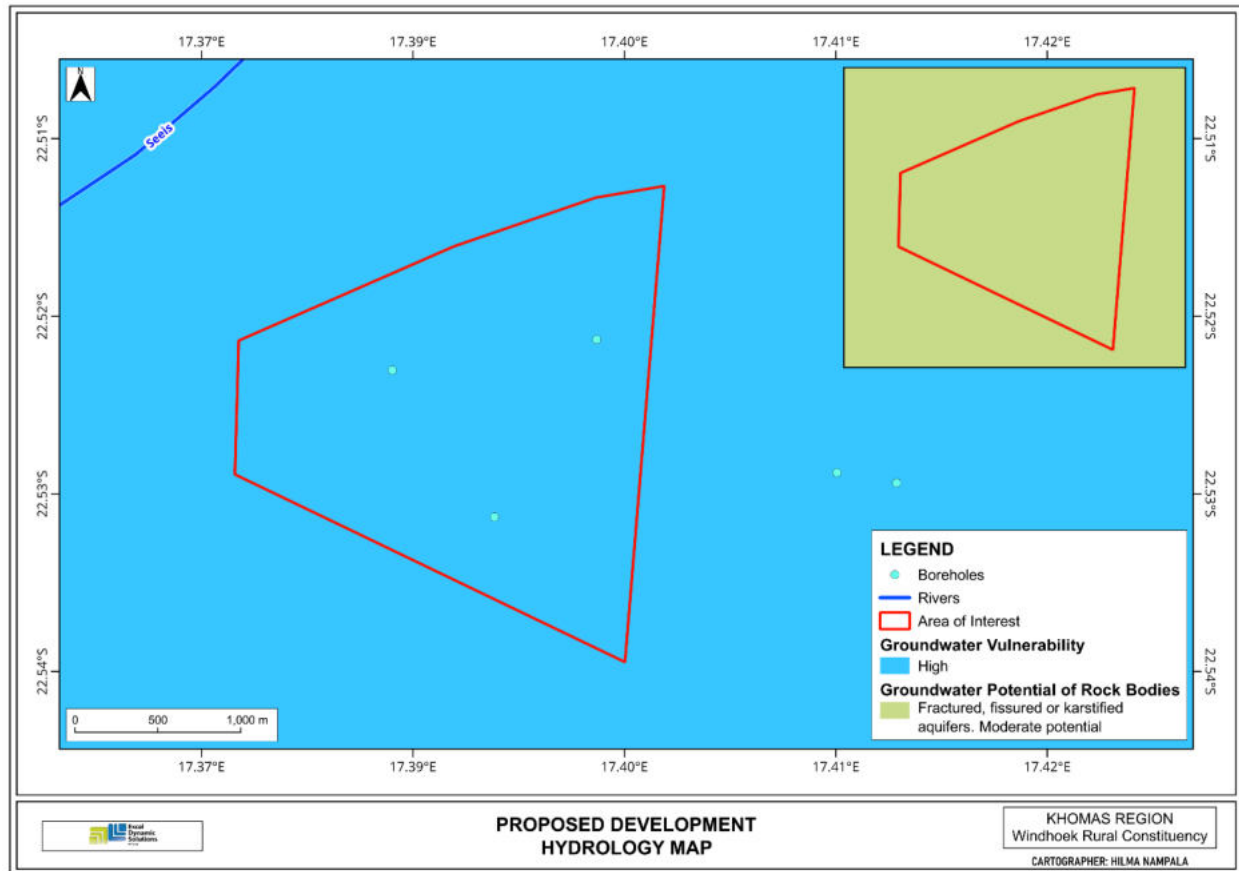


Figure 8: Shows hydrology map for the proposed development

5.6 Flora and Fauna

Flora

The project area lies with an area dominated by the woody plants, commonly biome trees and shrubs savannah. These are characterized by large open grasslands covered with acacia trees dominated in the area. The project area is mainly also covered by the *Acacia erioloba* commonly known as the Camel thorn (**Figure 9**), which is a nation protected plant species. The mitigation measures outlined in the EMP for the removal of protected plant must be adhered to.



Figure 9: Shows the protected plant species found on site

Fauna

The project area is surrounded by farms that accommodate livestock (i.e. cows, sheep and goats). According to (Martin, 2024) the area also consist of Oryx, jackals, kudu and leopards. **Figure 10** below shows animal evidence observed on site.



Figure 10: Animals evidence observed on the Farm (site)

5.7 Heritage and Archaeology

No graves, monuments or any other building of historical value was observed near the project area during the site visit.

5.8 Land Use and Project Site Suitability

The project is located on a private farm; The considerations taken into account during the site selection process are; the area is sparsely inhabited, easily accessible, not in an area prone to flooding therefore the proposed project and personnel are at minimal risk. Given that there is a presence of tarred road to be developed from the Hosea International Airport, access to the site by passing and local vehicle users, it is deemed that the project is well located in servicing the consumers without intruding into areas demarcated for other land uses.

5.9 Socio-Economic conditions

Approximately 494,605 people reside permanently in Khomas. This Region has a permanent clinic, Hospitals, Universities, Head offices, special education school, post and telecommunication offices, a couple of general dealers, churches, and police stations. The major sources of income in the Region tourism and farming.

6 PUBLIC CONSULTATION PROCESS

Public consultation forms an important component of an Environmental Assessment (EA) process. It provides potential Interested and Affected Parties (I&APs) with an opportunity to comment on and raise any issues relevant to the project for consideration as part of the assessment process, thus assisting the Environmental Assessment Practitioner (EAP) in identifying all potential impacts and to what extent further investigations are necessary. Public consultation can also aid in the process of identifying possible mitigation measures. Public consultation for this scoping study has been done in accordance with the EMA and its EIA Regulations.

6.1 Pre-identified and Registered Interested and Affected Parties (I&APs)

Relevant and applicable national, regional, and local authorities, local leaders, and other interested members of the public were identified. Pre-identified I&APs were contacted directly, while other parties who contacted the Consultant after project advertisement notices in the newspapers, were registered as I&APs upon their request. Newspaper advertisements of the proposed development were placed in two widely-read national newspapers in the region (The Namibian Newspaper and New Era Newspaper). The project advertisement/announcement ran for two consecutive weeks inviting members of the public to register as I&APs and submit their comments. The summary of pre-identified and registered I&APs is listed in **Table 3** below.

Table 3: Summary of Interested and Affected Parties (I&APs)

National (Ministries and State-Owned Enterprises)
Ministry of Environment, Forestry and Tourism
Ministry of Health and Social Services
Regional, Local and Traditional Authorities
Khomas Regional Council
Windhoek Town Council
General Public
Interested members of the public
Namibia Community Based Tourism Association

6.2 Communication with I&APs

Regulation 21 of the EIA Regulations details the steps to be taken during a public consultation process and these have been used in guiding this process. Communication with I&APs with regards to the proposed development was facilitated through the following means and in this order:

- A Background Information Document (BID) containing brief information about the proposed facility was compiled and emailed to relevant Authoritative Ministries, and upon request to all new registered Interested and Affected Parties (I&APs);

- Project Environmental Assessment notices were published in *The Namibian newspaper and New Era Newspaper* 15 & 19 September 2025 briefly explaining the activity and its locality, inviting members of the public to register as I&APs and submit their comments/concerns;
- A public meeting was scheduled and held on **24 May 2024**, Portion A of Remainder of Ptn 2 (Sonnleiten) Of Farm Ondekaremba No.78 at 10:00.



Figure 11: Public meeting scheduled on 24 May 2024

PUBLIC NOTICE

Environmental and Social Impact Assessment for the proposed Construction and Operation of a lodge, located on portion A (A portion of portion 138) on Farm Ondekaremba No.78 located near of Windhoek, ~~Karas~~ Region

Under the Environmental Management Act (No. 7 of 2007) and its 2012 Environmental Management Assessment Regulations, an Environmental Clearance Certificate (ECC) will be submitted to the Environmental Commissioner. The proposed project is a listed activity that cannot be undertaken without an ECC from the Department of Environmental Affairs and Forestry (DEAF).

Proponent: ~~Bastian~~ **Lotz**

Environmental Consultant: Excel Dynamic Solutions (Pty) Ltd ("EDS" Namibia)

Project Type and Location: The Proposed Construction and Operation of a lodge located on portion A (A portion of portion 138) on farm ~~Ondekaremba~~ No.78, ~~Karas~~ region- please refer to the locality map below.

Members of the public are further invited to register as Interested and Affected Parties (I&APs) to comment/raise concerns or receive further information on the Environmental Impact Assessment (EIA) process. Registration should be done with EDS on the contact details below.

You are hereby invited to a Public Consultation Meeting will be held as per the following details:

Date: 26 May 2024
Time: 11h00
Venue: Portion 138 on Farm ~~Ondekaremba~~ No.78

Registration and comments/concerns/issues should reach EDS **before or on 07 June 2024**.

Contact Person: **Mr. Silaw David**
Tel: +294 81 259 530, E-mail: public@exceldynamic.com


Excel Dynamic Solutions
www.exceldynamic.com

Location of the Proposed Development



Figure 12: Site notice for the proposed development during public consultation meeting

Issues were raised by affected and interested parties and these issues have been recorded and incorporated in the environmental report and EMP. The summarized issues raised during the public meeting and received through the email are presented in **Table 4** below.

Table 4: Summary of main issues and comments received during the first public meeting engagements via email

Issue	Concern

Water	The area has limited water availability and the proposed development may have an impact on the water; Over-usage or abstraction.
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7 IMPACT IDENTIFICATION, ASSESSMENT AND MITIGATION MEASURES

7.1 Impact Identification

Proposed development activities are usually associated with different potential positive and/or negative impacts. For an environmental assessment, the focus is placed mainly on the negative impacts. This is done to ensure that these impacts are addressed by providing adequate mitigation measures such that an impact's significance is brought under control, while maximizing the positive impacts of the development. The potential positive and negative impacts that have been identified from the proposed development activities are listed as follow:

Positive impacts:

- Tourist enjoyment of the scenery, so there is pressure to conserve habitats,
- Creation of jobs for the locals,
- Help boost local economic growth,
- Contribution to regional economic development

Negative impacts:

- Land degradation and Biodiversity Loss
- Generation of dust
- Water Resources Use
- Soil & Water Resources Pollution
- Waste Generation
- Occupational Health & Safety risks
- Vehicular Traffic Use & Safety
- Noise & Vibrations

- Impacts on local Roads
- Social Nuisance: local property intrusion & disturbance
- Social Nuisance: Job seeking & differing Norms, Culture & values

7.2 Impact Assessment Methodology

The Environmental Assessment process primarily ensures that potential impacts that may occur from project activity are identified, and addressed with environmentally cautious approaches and legal compliance. The impact assessment method used for this project is in accordance with Namibia's Environmental Management Act (No. 7 of 2007) and its Regulations of 2012, as well as the International Finance Corporation (IFC) Performance Standards.

The identified impacts were assessed in terms of scale/extent (spatial scale), duration (temporal scale), magnitude (severity) and probability (likelihood of occurring), as presented in **Table 5**, **Table 6**, **Table 7** and **Table 8**, respectively.

In order to enable a scientific approach to the determination of the environmental significance, a numerical value is linked to each rating scale. This methodology ensures uniformity and that potential impacts can be addressed in a standard manner so that a wide range of impacts are comparable. It is assumed that an assessment of the significance of a potential impact is a good indicator of the risk associated with such an impact. The following process will be applied to each potential impact:

- Provision of a brief explanation of the impact;
- Assessment of the pre-mitigation significance of the impact; and
- Description of recommended mitigation measures.

The recommended mitigation measures prescribed for each of the potential impacts contribute toward the attainment of environmentally sustainable operational conditions of the project for various features of the biophysical and social environment. The following criteria were applied in this impact assessment:

7.2.1 Extent (spatial scale)

Extent is an indication of the physical and spatial scale of the impact. **Table 5** shows rating of impact in terms of extent of spatial scale.

Table 5: Extent or spatial impact rating

Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)
Impact is localized within the site boundary: Site only	Impact is beyond the site boundary: Local	Impacts felt within adjacent biophysical and social environments: Regional	Impact widespread far beyond site boundary: Regional	Impact extend National or over international boundaries

7.2.2 Duration

Duration refers to the timeframe over which the impact is expected to occur, measured in relation to the lifetime of the project. **Table 6** shows the rating of impact in terms of duration.

Table 6: Duration impact rating

Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)
Immediate mitigating measures, immediate progress	Impact is quickly reversible, short term impacts (0-5 years)	Reversible over time; medium term (5-15 years)	Impact is long-term	Long term; beyond closure; permanent; irreplaceable or irretrievable commitment of resources

7.2.3 Intensity, Magnitude / severity

Intensity refers to the degree or magnitude to which the impact alters the functioning of an element of the environment. The magnitude of alteration can either be positive or negative. These ratings were also taken into consideration during the assessment of severity. **Table 7** shows the rating of impact in terms of intensity, magnitude or severity.

Table 7: Intensity, magnitude or severity impact rating

Type of criteria	Negative				
	H- (10)	M/H- (8)	M- (6)	M/L- (4)	L- (2)
Qualitative	Very high deterioration, high quantity of deaths, injury of illness / total loss of habitat, total alteration of ecological processes, extinction of rare species	Substantial deterioration, death, illness or injury, loss of habitat / diversity or resource, severe alteration or disturbance of important processes	Moderate deterioration, discomfort, partial loss of habitat / biodiversity or resource, moderate alteration	Low deterioration, slight noticeable alteration in habitat and biodiversity. Little loss in species numbers	Minor deterioration, nuisance or irritation, minor change in species / habitat / diversity or resource, no or very little quality deterioration.

7.2.4 Probability of occurrence

Probability describes the likelihood of the impacts actually occurring. This determination is based on previous experience with similar projects and/or based on professional judgment. **Table 8** shows impact rating in terms of probability of occurrence.

Table 8: Probability of occurrence impact rating

Low (1)	Medium/Low (2)	Medium (3)	Medium/High (4)	High (5)
Improbable; low likelihood; seldom. No known risk or vulnerability to natural or induced hazards.	Likely to occur from time to time. Low risk or vulnerability to natural or induced hazards	Possible, distinct possibility, frequent. Low to medium risk or vulnerability to natural or induced hazards.	Probable if mitigating measures are not implemented. Medium risk of vulnerability to natural or induced hazards.	Definite (regardless of preventative measures), highly likely, continuous. High risk or vulnerability to natural or induced hazards.

7.2.5 Significance

Impact significance is determined through a synthesis of the above impact characteristics. The significance of the impact “without mitigation” is the main determinant of the nature and degree of mitigation required. As stated in the introduction to this section, for this assessment, the significance of the impact without prescribed mitigation actions is measured.

Once the above factors (**Table 4**, **Table 5**, **Table 6** and **Table 7**) have been ranked for each potential impact, the impact significance of each is assessed using the following formula:

$$\text{SIGNIFICANCE POINTS (SP)} = (\text{MAGNITUDE} + \text{DURATION} + \text{SCALE}) \times \text{PROBABILITY}$$

The maximum value per potential impact is 100 significance points (SP). Potential impacts were rated as high, moderate or low significance, based on the following significance rating scale (**Table 9**).

Table 9: Significance rating scale

Significance	Environmental Significance Points	Colour Code
High (positive)	>60	H
Medium (positive)	30 to 60	M
Low (positive)	1 to 30	L
Neutral	0	N
Low (negative)	-1 to -30	L
Medium (negative)	-30 to -60	M
High (negative)	<-60	H

Positive (+) – Beneficial impact

Negative (-) – Deleterious/ adverse+ Impact

Neutral – Impacts are neither beneficial nor adverse

For an impact with a significance rating of high (-ve), mitigation measures are recommended to reduce the impact to a medium (-ve) or low (-ve) significance rating, provided that the impact with a medium significance rating can be sufficiently controlled with the recommended mitigation measures. To maintain a low or medium significance rating, monitoring is recommended for a period of time to enable the confirmation of the significance of the impact as low or medium and under control.

The assessment of the development phases is done for pre-mitigation and post-mitigation.

The risk/impact assessment is driven by three factors:

Source: The cause or source of the contamination.

Pathway: The route taken by the source to reach a given receptor

Receptor: A person, animal, plant, eco-system, property or a controlled water source. If contamination is to cause harm or impact, it must reach a receptor.

A pollutant linkage occurs when a source, pathway and receptor exist together. Mitigation measures aim firstly, avoid risk and if the risk cannot be avoided, mitigation measures to minimize the impact are recommended. Once mitigation measures have been applied, the identified risk would reduce to lower significance (Booth, 2011).

The potential negative impacts stemming from the proposed project are described, assessed and mitigation measures provided thereof. Further mitigation measures in a form of management action plans are provided in the Draft Environmental Management Plan.

7.3 Assessment of Potential Negative Impacts

The main potential negative impacts associated with the operation and maintenance phase are identified and assessed below:

7.3.1 Land Degradation and Loss of Biodiversity

Endemic species are most severely affected since even the slightest disruption in their habitat can result in extinction or put them at high risk of being wiped out. The presence and movement of the workforce and construction of project equipment and heavy vehicles would disturb the species. In terms of flora, the direct impacts on flora and vegetation communities will mainly occur through clearing of vegetation. The dust emissions from land clearing and construction may affect surrounding vegetation through the fall of dust. Some loss of vegetation is an inevitable consequence of the development.

Under the status, the impact can be of a medium significance rating. With the implementation of appropriate mitigation measures, the rating will be reduced to a low significance rating. The impact is assessed in **Table 11** below.

Table 10: Assessment of the impacts of the project on biodiversity

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
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Pre mitigation	M: -3	M: -3	M: -6	M/H: 4	M: -48
Post mitigation	L/M: -2	L/M: -2	L/M: -4	L/M: 2	L: -16

7.3.2 Generation of Dust (Air Quality)

Dust emanating from site access roads when transporting equipment and supply (water) to and from site (time-to-time) may compromise the air quality in the area. Vehicular movements from heavy vehicles such as trucks would potentially create dust even though it is not always so severe. The hot and dry environment, loose and sandy nature of the substrate and low vegetation cover causes ambient fugitive dust levels. The medium significance of this impact can be reduced to a low significance rating by properly implementing mitigation measures. The impact is assessed in **Table 12** below.

Table 11: Assessment of the impacts of the project on air quality

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M: -3	M: -3	M/L: -4	M/H: 4	M: -40
Post mitigation	L - 1	L - 1	L - 2	L - 1	L - 4

7.3.3 Water Resources Use

Water resources is impacted by project developments/activities in two ways, namely through pollution (water quality) or over-abstraction (water quantity) or at times both.

The abstraction of more water than it can be replenished would negatively affect the local communities that depend on the same groundwater resource (aquifer).

The impact of the project activities on the resources would be dependent on the water volumes required by each project activity. Commonly construction activities use a lot of water.

The required water for construction is about 4,000 litres per month. This water will be used for construction and washing equipment, drinking and other domestic purposes. Given the low to medium groundwater potential of the project site area, the Proponent may consider carting some of the water volumes from outside the area and store it in industry standard water reservoirs/tanks on site. Although the construction may be requiring this much water, this would also be dependent on the duration of the construction phase.

Without the implementation of any mitigation measures, the impact can be rated as medium, but upon effective implementation of the recommended measures, the impact significance would be reduced to low as presented in the **Table 12** below.

Table 12: Assessment of the project impact on water resource use and availability

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M - 3	M/H - 4	L/M - 4	M/H - 4	M - 44
Post mitigation	L/M - 2	L/M - 2	L - 2	L/M - 2	L - 12

7.3.4 Soil and Water Resources Pollution

The proposed project activities are associated with a variety of potential pollution sources (i.e., lubricants, fuel, and wastewater) that may contaminate/pollute soils and eventually groundwater and surface water. The anticipated potential source of pollution to water resources from the project activities would be hydrocarbons (oil) from project vehicles, machinery, and equipment as well as potential wastewater/effluent from construction related activities.

The spills (depending on volumes spilled on the soils) from these machinery, vehicles and equipment could infiltrate into the ground and pollute the fractured or faulted aquifers on site, and with time reach further groundwater systems in the area. However, it should be noted that the scale and extent/footprint of the activities where potential sources of pollution will be handled is relatively small. Therefore, the impact will be moderately low.

Pre-mitigation measure implementation, the impact significance is low to moderate and upon implementation, the significance will be reduced to low. The impact is assessed in **Table 13** below.

Table 13: Assessment of the project impact on soils and water resources (pollution)

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M - 3	M/H - 4	M - 6	M - 3	M - 39
Post mitigation	L - 1	L - 1	L - 2	L/M - 2	L - 8

7.3.5 Waste Generation

Domestic, general and construction waste may be produced on site. To prevent these issues, biodegradable and non-biodegradable wastes must be stored in separate containers and collected regularly for disposal at a recognized landfill/dump site. Any hazardous waste that may have an impact on the animals, vegetation, water resources and the general environment should be handled cautiously. Without any mitigation measures, the general impact of waste generation has a medium significance. The impact will reduce to low significance, upon implementing the mitigation measures. The assessment of this impact is given in **Table 14**.

Table 14: Assessment of waste generation impact

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	L/M - 2	L/M - 2	M - 6	M - 3	M – 30
Post mitigation	L - 1	L - 1	L - 2	L/M - 2	L - 8

7.3.6 Occupational Health and Safety Risks

Project personnel (workers) involved in the proposed construction activities may be exposed to health and safety risks. These are in terms of accidental injury, owing to either minor (i.e., superficial physical injury) or major (i.e., involving heavy machinery or vehicles) accidents. The site safety of all personnel will be the Proponent's responsibility and should be adhered to as per the requirements of the Labour Act (No. 11 of 2007) and the Public Health Act (No. 36 of 1919). The heavy vehicle, equipment and fuel storage area should be properly secured to prevent any harm or injury to the Proponent's personnel or local domestic animals. If machinery and equipment are not properly stored and packed, the safety risk may be a concern for project workers.

The impact is probable and has a medium significance rating. However, with adequate mitigation measures, the impact rating will be reduced to low. This impact is assessed in **Table 15** below and mitigation measures provided.

Table 15: Assessment of the impacts of construction activities on health and safety

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
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Pre mitigation	M - 3	M - 3	M - 6	M/H - 4	M – 48
Post mitigation	L/M - 2	L/M - 2	L - 2	L/M - 2	L - 12

7.3.7 Vehicular Traffic Use and Safety

Depending on the project needs, trucks, medium and small vehicles will be frequenting the area to and from sites. This would potentially increase slow moving heavy vehicular traffic along these roads. The impact would not only be felt by the district road users but also the local road users. This would add additional pressure on the roads.

However, only so many times a week or even monthly that construction related heavy trucks will be transporting materials and equipment to site. Therefore, the risk is anticipated to be short-term, not frequent, and therefore of medium significance. Pre-mitigation, the impact can be rated medium and with the implementation of mitigation measures, the significance will be low as assessed in **Table 16** below.

Table 16: Assessment of the impacts of construction activities on road use (vehicular traffic)

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M - 3	M/H - 4	L/M - 4	M/H - 4	M - 44
Post mitigation	L/M - 2	L/M - 2	L - 2	L/M - 2	L - 12

7.3.8 Noise and vibrations

Construction activities for the proposed project may be a nuisance to surrounding communities due to the noise produced by the activity. Excessive noise and vibrations can be a health risk to workers on site. Equipment used on site is of medium size and the noise level is bound to be limited to the site only, therefore, the impact likelihood is minimal. Without any mitigation, the impact is rated as of medium significance. To change the impact significance from the pre-mitigation significance to low rating, the mitigation measures should be implemented. This impact is assessed in **Table 17** below.

Table 17: Assessment of the impacts of noise and vibrations

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
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Pre mitigation	L/M - 2	L/M - 2	M - 6	M/H - 3	M – 30
Post mitigation	L - 1	L/M - 2	L - 2	L/M -2	L - 10

7.3.9 Impact on Local Roads

These types of projects are usually associated with movements of heavy trucks and equipment or machinery that use locals frequently. The heavy trucks travelling on the local roads and exert more pressure on them. These local roads in remote areas are normally not in a good condition already for light vehicles, and the additional vehicles such as heavy ones may make it worse and difficult to be used by small (vehicles) that already struggled on the roads before they got worse.

Without any management and or mitigation measures, the impact can be rated as medium and to reduce this rating to low, the measures will need to be effectively implemented. The assessment of this impact is presented in **Table 18**.

Table 18: Assessment of construction of the proposed development on local services (roads and water)

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M/H - 4	M - 3	M - 6	M - 3	M – 39
Post mitigation	L - 1	L - 1	M/L - 4	M/L -2	L - 12

7.3.10 Social Nuisance: Local Property intrusion and Disturbance or Damage

The presence of some out-of-area workers may lead to social annoyance to the local community. This could particularly be a concern when they or some of those workers enter or damage properties of the locals. The private properties of the locals could be houses, fences, vegetation, or domestic or any properties of economic or cultural value to the landowners or occupiers of the land. The damage or disturbance to properties may not only be private but local public properties. The unpermitted and unauthorized entry to private properties may cause crashes between the affected landowners and the Proponent.

Pre-implementation of mitigation measures, the impact is rated as of medium significance. However, upon mitigation (post-mitigation), the significance will change from medium to low rating. The impact is assessed below (**Table 19**).

Table 19: Assessment of social impact of community property damage or disturbance

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M - 3	M - 3	M - 6	M/H - 4	M – 48
Post mitigation	L - 1	L - 1	M/L - 4	M/L - 2	L - 12

7.3.11 Social Nuisance: Job seeking and Differing Norms, Culture and Values

The proposed project activities could attract a potential influx of people from outside the project area in search of job opportunities. Such influxes during the construction and operational phase may lead to social annoyance to the local community as well as conflicts. This is generally considered a concern, given the current unemployment rate of youth in Namibia. People from other areas/regions may learn of the project intentions through ESIA notices in the newspapers and be forced to go look for work opportunities in the area. Different people may come with different ways of living to the area, which could interfere with the local norms, culture, and values. This could potentially lead to social clashes between the locals and outsiders (out-of-area job seekers).

Pre-implementation of mitigation measures, the impact is rated as of medium significance. However, upon mitigation (post-mitigation) – see mitigation measures below, the significance will change from medium to low rating. The impact is assessed in **Table 20** below.

Table 20: Social impact assessment of outsiders' influx into the area (job seeking related)

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre mitigation	M - 3	M - 3	M - 6	M/H - 4	M – 48
Post mitigation	L/M - 2	L/M - 2	L - 2	L/M - 2	L - 12

7.4 Mitigations and Recommendations for Construction Closure phase

The construction closure of the project will include but not limited to the following:

- Carrying away all waste generated on site.
- Removal of erected site offices, and building materials which are left from the construction phase on site.
- Transporting all machinery and equipment to designated offsite storage facilities.

8 CONCLUSIONS AND RECOMMENDATIONS

The potential impacts that are anticipated from the proposed project activities were identified, described, and assessed. For the significant adverse (negative) impacts with a medium rating, appropriate management and mitigation measures were recommended for implementation by the Proponent, their contractors and project related employees.

The public was consulted as required by the EMA and its 2012 EIA Regulations (Section 21 to 24). This was done via the two newspapers (New Era and The Namibian) used for this environmental assessment. A consultation through a face-to-face meeting with I&APs on the Farm was conducted, whereby they raised comments and concerns on the proposed project activities.

The issues and concern raised by the registered I&APs formed the basis for this Report and the Draft EMP. The issues were addressed and incorporated into this Report whereby mitigation measures have been provided thereof to avoid and/or minimize their significance on the environmental and social components. Most of the potential impacts were found to be of medium rating significance. The effective implementation of the recommended management and mitigation measures will particularly see a reduction in the significance of adverse impacts that cannot be avoided completely (from medium rating to low). To maintain the desirable rating, the implementation of management and mitigation measures should be monitored by the Proponent directly, or their Environmental Control Officer (ECO) is highly recommended. The monitoring of this implementation will not only be done to maintain the reduced impacts' rating or maintain a low rating but to also ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed right away too.

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