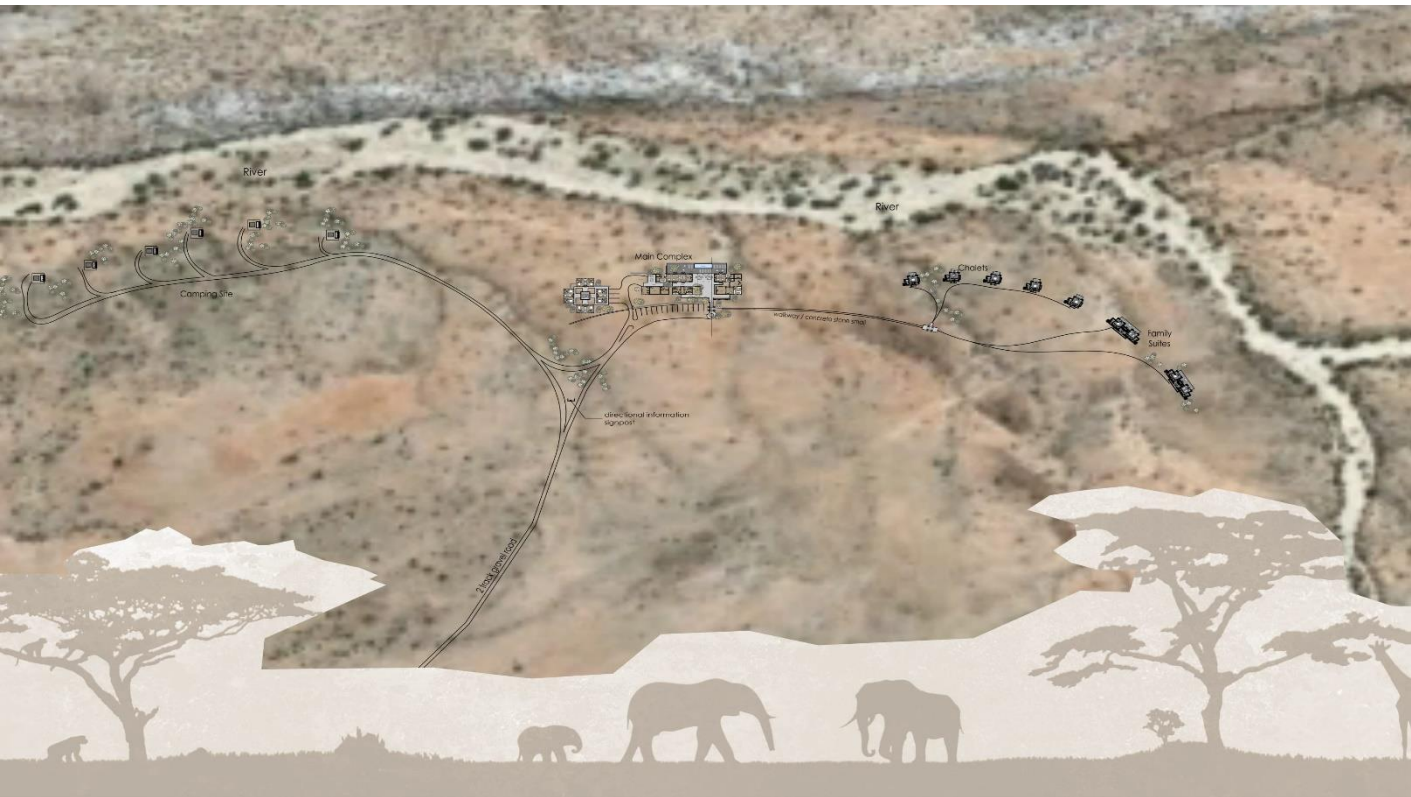


# THE ESTABLISHMENT OF DINALEDI LODGE AND CAMPSITES ON FARM LIBERTAS IN KARIBIB, ERONGO REGION - NAMIBIA



## ENVIRONMENTAL SCOPING REPORT (ESR)

Consultant:



Proponent:

Dinaledi Lodges and Campsite cc

APP-002155

December 2020

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## Acronyms

TERMS	DEFINITION
BID	Background Information Document
EAP	Environmental Assessment Practitioners
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA (R)	Environmental Impact Assessment (Report)
ESIA	Environmental and Social Impact Assessment
EMP	Environmental Management Plan
EMPr	Environmental Management Plan Report
GHG	Greenhouse Gasses
ISO	International Organization for Standardization
I&Aps	Interested and Affected Parties
MEFT: DEA	Ministry of Environment, Forestry and Tourism's Directorate of Environmental Affairs
NHC	National Heritage Council
NEMA	Namibia Environmental Management Act
ToR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change

## i. EXECUTIVE SUMMARY

EnviroPlan Consulting cc has compiled this request for an application for Environmental Clearance Certificate and impact assessment in accordance Section 39 of the Environmental Management Act, 2007 on behalf of **Dinaledi Lodge and Campsite cc**. The purpose of this application is for the construction and operation of a lodge and campsite establishment on Farm Libertas in Karibib area, Daures Constituency-Erongo Region in accordance to the Environmental Management Act, 2007.

EnviroPlan Consulting ccs terms of reference for this request for Environmental Clearance Certificate is to identify possible impacts on the Environmental and Social setting of the proposed projects and explore alternatives for impact management and remediation.

### Anticipated Environmental Impacts



Expected are low potential environmental impacts because of the current nature of the receiving environment.

Key Area of environmental impacts:

- Impacts on fauna and flora
- Surface water pollution
- Construction health and safety impacts

### Socio-Economic Impacts



Dinaledi Lodge and Campsites respects social responsibility and sustainability as part of their development, the proposed lodge will be used as a tool to promote sustainable tourism through reducing environmental footprint of the project. Anticipated socio-economic impacts are as follows:

- Employment creation
- Construction Health and Safety Impacts
- Local security impacts (social intrusion)
- Expansion of the local economy (tourism, taxes)

### Recommendations

Based on the outcome of this impact assessment, **EnviroPlan Consulting** is of the **opinion** that the proposed **lodge establishment project** as by the proponent should be **authorised** as the project's **benefits outweigh negative impacts** and the proposed project has a **sound motivation demonstrating the sustainability**, the **need** and **desirability** thereof. However, strict **compliance** to the developed **Environmental Management Plan** is emphasised.

# 1. CHAPTER ONE: BACKGROUND

## 1.1. Introduction

The proponent **Dinaledi Lodge and Campsite cc** intends to establish a lodge and camping facility on Farm Libertas, Daures Constituency-Erongo Region. This development has been necessitated by the recently booming tourism sector in Namibia and the project has been in planning before COPVID-19 affected business and tourism in the country and the world as whole. However, the proponent is hopeful that once tourism resume, the country will be more than ready to embark on tourism business and the proponent also want to play their role.

In this respect the proponent has appointed EnviroPlan Consulting cc to undertake an Environmental Scoping Assessment (ESA), formulate an Environmental Management Plan (EMP) and apply for an Environmental Clearance Certificate (ECC) to the Ministry of Environment, Forestry and Tourism (MEFT): Directorate of Environmental Affairs (DEA) for the proposed lodge establishment.

This document forms part of the application to be made to the DEA's office for an Environmental Clearance certificate for the proposed establishment of a lodge according the guidelines and statutes of the Environmental Management Act No.7 of 2007 and the environmental impacts regulations (GN 30 in GG 4878 of 6 February 2012).

## 1.2. Project Location

The proposed development is on Farm Libertas, Daures Constituency in Erongo Region - Namibia. The proposed site is about 70km North of Karibib town which services the area. The project locality Map is on Figure 1.

## 1.3. Project site overview

The proposed portion Farm Libertas in Daures Constituency within Karibib area of Erongo Region is 20 Ha and can accommodate the proposed project in terms of spatial requirements of the activity because the project will use about 5ha for the lodge and campsites development and the rest will be used for future development and activities. It is imperative to understand the proposed project area is within a communal area and is within the Spitzkoppe tourism area. The surrounding land used are mixed tourism, conservation and subsistence agriculture, however because water is not easy to come by agriculture is not particularly successful in this area.

There is clear evidence of existence of game within the project area and its surroundings, however due to influence of human encroachment into the area game survival have been impacted and will still be affected in the future. The area affected by development still has



vegetation cover and the EIA team observed that the proposed site can be classified as partially disturbed, due to existing infrastructure within the project area vicinity.

There no power supply to the site but boreholes for water supply have been drilled. There are existing conservancy tanks used for sewer reticulation system where the lodge development is. Within the project site there are existing residential structures were previous owners have vacated the area because on the non-productivity of this area, hence the new initiative by the developer to use the site for another economically viable land use to sustain the plot as well as the local economy.



**Figure 1: (left) Existing site infrastructure. (Right) Water Supply o the Farm.**

**Figure 2: Bottom-Solar power for lighting**



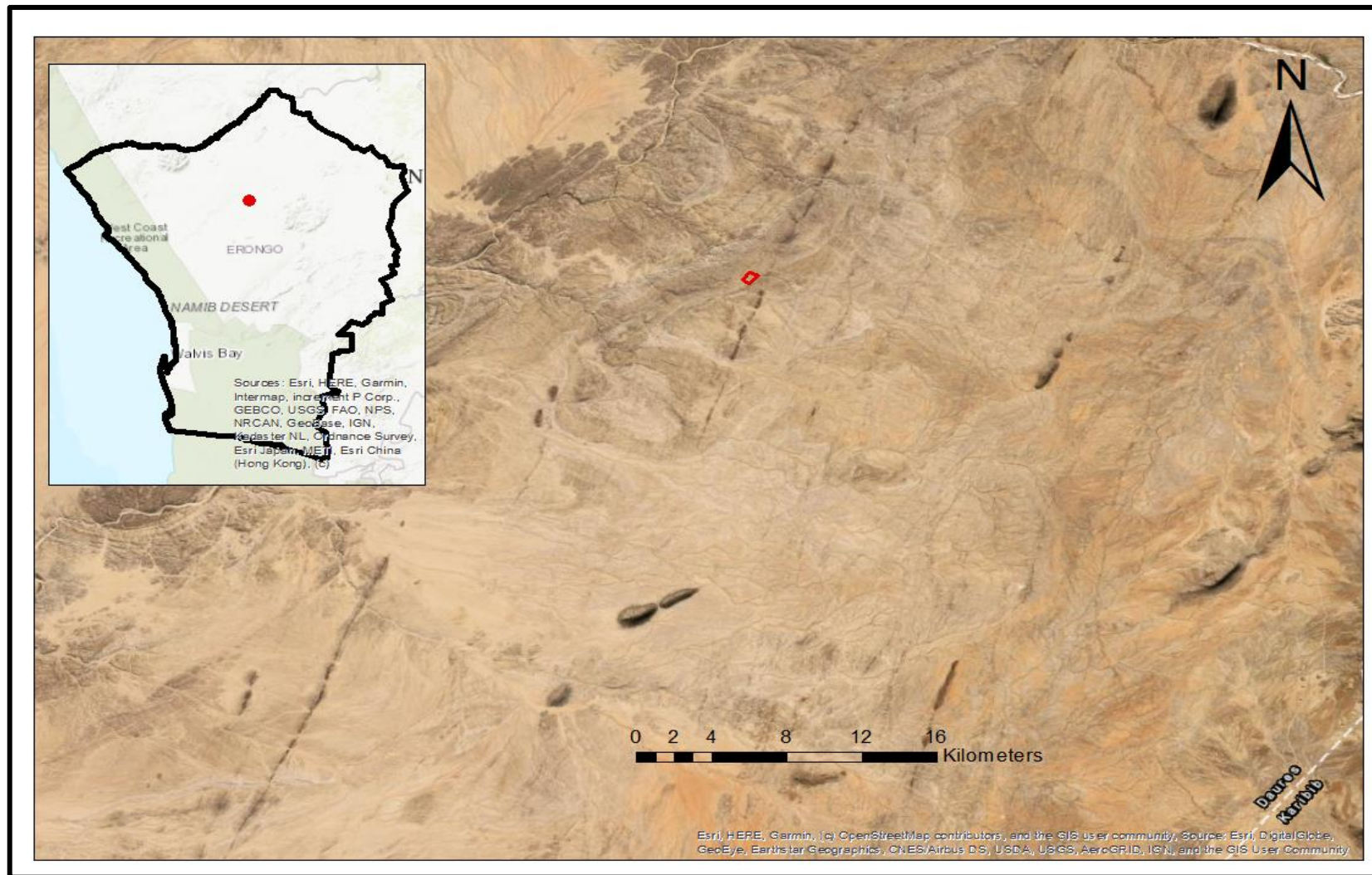


Figure 3: Proposed Project Site.



## 1.4. Project Overview

The proponent, Dinaledi Lodge and Resort cc intends to establish a world class lodge and campsite facility on Farm Libertas in Erongo Region-Namibia. The project is aimed at improving offerings in the tourism sector in Erongo and Namibia as a whole. The construction and operation of the lodge degree of safety for employees and equipment. The proposed infrastructure will have minimal impacts on the natural resources, i.e. water, fauna and flora.

## 1.5. Proposed project infrastructure

Proposed on site for construction, is as follows:

- 6 by 2 bedroomed lodging facility
- 11camping sites
- Employees accommodation
- Reception & Admin Area
- Restaurant and Bar area

The proposed development layout is as follows:

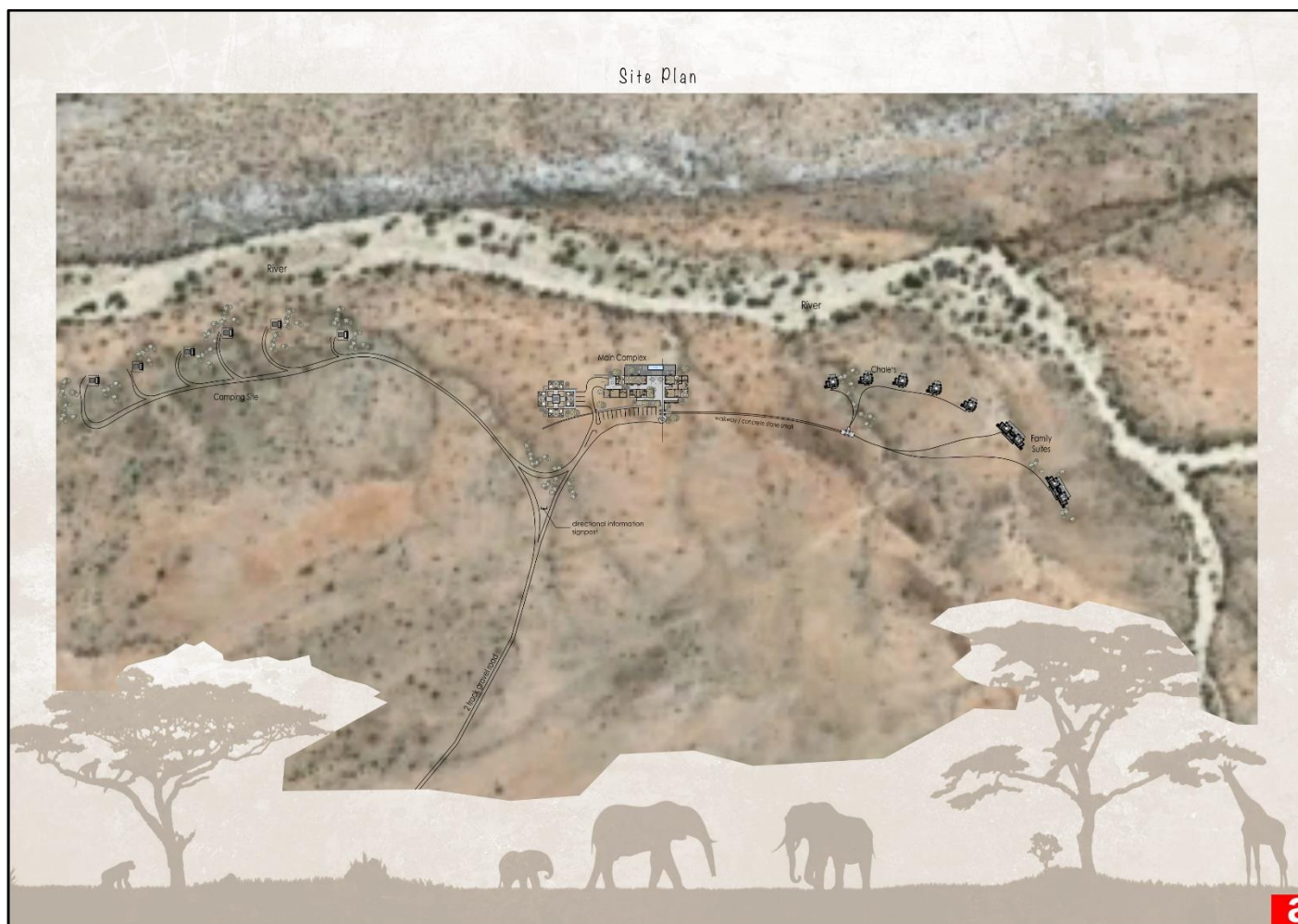


Figure 4: Lodge Layout Plan

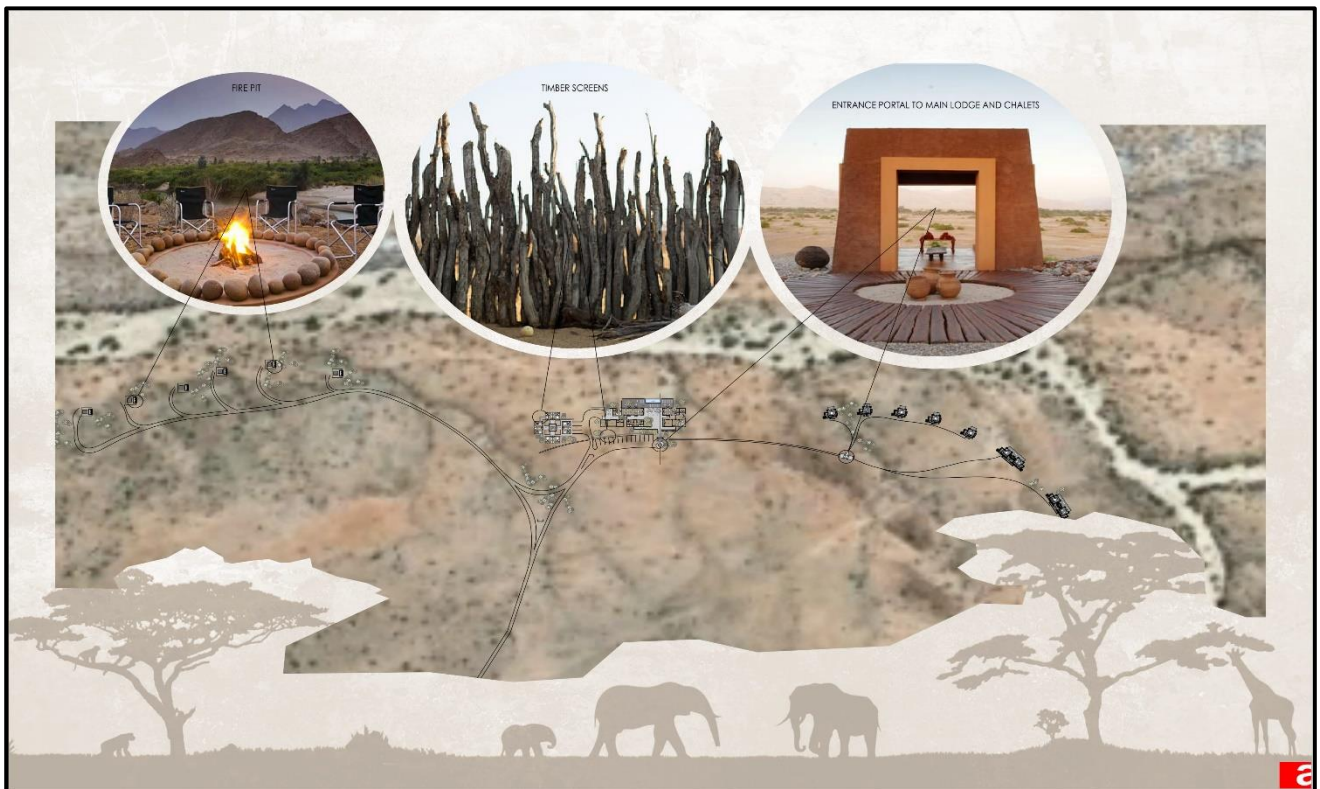


Figure 5: Construction Examples



Figure 6: Lodge Chalets Layouts

## 1.6. Accessibility

There is an existing farm road that is already in use, and the proponent will use this road to avoid road upgrades that will damage the environment.

## 1.7. Land Use and Ownership

The piece of land is owned by Hon C.G Bohitile the owner of Dinaledi Lodge and Campsites.

## 1.8. Infrastructure and Services

- **Water:** There are boreholes on site and in use for other activities on the farm and it is sufficient.
- **Ablution:** There are septic tanks on site and will be periodically maintained and emptied.
- **Electricity:** The farm has solar power, once electricity is planned for connection, appropriate processes will be undertaken.
- **Communication:** The site is connected with MTC, TN Mobile and satellite phones.



## **2. CHAPTER TWO: POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK**

### **2.1. Introduction**

An important part of the EIA is identifying and reviewing the administrative, policy and legislative frameworks concerning the proposed activity, to inform the proponent about the requirements to be fulfilled in undertaking the proposed project. This section looks at the legislative framework within which the proposed development will conform to; the focus is on the compliance with the legislation during the planning, construction and operational phases. All relevant legislations, policies and international statutes applying to the project are highlighted in the table below as specified in the Environmental Management Act, 2007 (Act No.7 of 2007) and the regulations for Environmental Impact Assessment as set out in the Schedule of Government Notice No. 30 (2012).



**Table 1: Policies, legal and Administrative regulations**

The pursuit of sustainability is guided by a sound legislative framework. In this section, relevant legal instruments as well as their relevant provisions have been surveyed. An explanation is provided regarding how these provisions apply to this project;

Aspect	Legislation	Relevant Provisions	Relevance to the Project
<b>The Constitution</b>	Namibian Constitution First Amendment Act 34 of 1998	<ul style="list-style-type: none"> <li>- Article 16(1) guarantees all persons the right to property. It therefore provides everyone a right to acquire, own and dispose of property, alone or in association with others and to bequeath such property.</li> <li>- "The State shall actively promote and maintain the welfare of the people by adopting policies that are aimed at maintaining ecosystems, essential ecological processes and the biological diversity of Namibia. It further promotes the sustainable utilisation of living natural resources basis for the benefit of all Namibians, both present and future." (Article 95(l)).</li> </ul>	<ul style="list-style-type: none"> <li>- The project will enable the full execution of right to practice any profession, or carry on any occupation, trade or business by availing necessary provisions such as practising any profession, or carry on any occupation, trade or business in the country.</li> <li>- Through implementation of the environmental management plan, the proponent will ensure conformity to the constitution in terms of environmental management and sustainability.</li> </ul>
<b>National Development Plans</b>		<ul style="list-style-type: none"> <li>- Namibia's overall Development ambitions are articulated in the National Vision 2030. At the operational level, five-yearly national development plans (NDP's) are prepared in extensive consultations led by the National Planning Commission in the Office of the President. The Government has so far launched a 4th NDP focusing on high and sustained economic growth, increased income equality Employment creation.</li> </ul>	<ul style="list-style-type: none"> <li>- The proposed project will propel NDP4 targets in tourism development. Adding on, this will create employment which will work towards the NDP and Vision 2030.</li> </ul>
<b>Archaeology</b>	National Heritage Act 27 of 2004	<ul style="list-style-type: none"> <li>- Section 48(1) states that "A person may apply to the Namibian Heritage Council (NHC) for a permit to carry out works or activities in relation to a protected place or protected object"</li> </ul>	<ul style="list-style-type: none"> <li>- Any heritage resources discovered would require a permit from the NHC for relocation.</li> </ul>
	National Monuments Act of Namibia (No. 28 of	<ul style="list-style-type: none"> <li>- "No person shall destroy, damage, excavate, alter, remove from its original site or export from Namibia:</li> </ul>	<ul style="list-style-type: none"> <li>- The proposed site of development is not within any known monument sites, both movable and</li> </ul>

	1969) as amended until 1979	<ul style="list-style-type: none"> <li>- Meteorites, fossils, petroglyphs, ornamental infrastructure graves, caves, rock shelters, middens, shells that came into existence before the year 1900 AD; or</li> <li>- any other archaeological or palaeontological finds</li> </ul>	immovable as specified in the Act, however in finding any materials specified in the Act, contractors on site will take the required route and notify the relevant commission.
<b>Environmental</b>	Environmental Management Act 7 of 2007	<ul style="list-style-type: none"> <li>- Requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27).</li> <li>- Requires for adequate public participation during the environmental assessment process for interested and affected parties to voice their opinions about a project (Section 2(b-c)).</li> <li>- According to Section 5(4) a person may not discard waste as defined in Section 5(1)(b) in any way other than at a disposal site declared by the Minister of Environment and Tourism or in a manner prescribed by the Minister.</li> <li>- Details principles which are to guide all EIAs</li> </ul>	- This Act and its regulations should inform and guide this EIA process.
	EIA Regulations GN 57/2007 (GG 3812)	<ul style="list-style-type: none"> <li>- Details requirements for public consultation within a given environmental assessment process (GN No 30 S21).</li> <li>- Details the requirements for what should be included in a Scoping Report (GN No 30 S8) an EIA report (GN No 30 S15).</li> </ul>	- This Act and its regulations should inform and guide this EIA process.
	Pollution and Waste Management Bill (draft)	<ul style="list-style-type: none"> <li>- This bill defines pollution and the different types of pollution. It also points out how the Government intends to regulate the different types of pollution to maintain a clean and safe environment.</li> <li>- The bill also describes how waste should be managed to reduce environmental pollution. Failure to comply with the requirements considered an offence and is punishable.</li> </ul>	- The project should be executed in harmony with the requirements of the act to reduce negative impacts on the surrounding environs from waste during construction or operation. Erongo Regional Council waste management by laws will be abide to during construction and operation.
	Soil Conservation Act 76 of 1969	- This acts makes provision for combating and for the prevention of soil erosion, it promotes the conservation, protection and improvement of the soil, vegetation, sources and resources of the Republic of Namibia.	- The Project impact on soil will rather be localised, however the Act should provide for guidelines of operation during construction to

			prevent soil erosion and contamination during operation.
	National Biodiversity Strategy and Action Plan (NBSAP2)	<ul style="list-style-type: none"> <li>- The action plan was operationalised in a bid to make aware the critical importance of biodiversity conservation in Namibia, putting together management of matters to do with ecosystems protection, biosafety, and biosystematics protection on both terrestrial and aquatic systems.</li> </ul>	<ul style="list-style-type: none"> <li>- Forming part of the EIA of and EMP for this Project, the proponent will consider all associated impacts, both acute and long term, and will propose methods and ways to sustain the local biodiversity.</li> </ul>
<b>Forestry</b>	Forest Act 12 of 2001	<ul style="list-style-type: none"> <li>- Tree species and any vegetation within 100m from a watercourse may not be removed without a permit (S22(1))</li> <li>- Provision for the protection of various plant species.</li> </ul>	<ul style="list-style-type: none"> <li>- The clearing of vegetation is prohibited (subject to a permit) 100m either side of a river. Certain tree species occurring in the area are protected under this Act. Permits must be obtained from MAWF in accordance with the Act. However, on site there are no trees that require clearing permit.</li> </ul>
<b>Water</b>	Water Act 54 of 1956	<ul style="list-style-type: none"> <li>- The Water Resources Management Act 24 of 2004 is presently without regulations; therefore, the Water Act No 54 of 1956 is still in force:</li> <li>- A permit application in terms of Sections 21(1) and 21(2) of the Water Act is required for the disposal of industrial or domestic wastewater and effluent.</li> <li>- Prohibits the pollution of underground and surface water bodies (S23(1)).</li> <li>- Liability of clean-up costs after closure/ abandonment of an activity (S23(2)).</li> <li>- Protection from surface and underground water pollution</li> </ul>	<ul style="list-style-type: none"> <li>- The protection of ground and surface water resources should guide development's layout plans, since the lodge will rely on groundwater.</li> </ul>
<b>Health and Safety</b>	Labour Act (No 11 of 2007) in conjunction with Regulation 156, 'Regulations Relating to	<ul style="list-style-type: none"> <li>- 135 (f): "the steps to be taken by the owners of premises used or intended for use as factories or places where machinery is used, or by occupiers of such premises or by users of machinery about the structure of such buildings of otherwise to prevent or extinguish</li> </ul>	The proponent will employ several people from the local community and shall ensure securing a safe environment and preserving the health and welfare of employees at work.

	the Health and Safety of Employees at work'.	<p>fires, and to ensure the safety in the event of fire, of persons in such building;" (Ministry of Labour and Social Welfare).</p> <ul style="list-style-type: none"> <li>- This act emphasizes and regulates basic terms and conditions of employment, it guarantees prospective health, safety and welfare of employees and protects employees from unfair labour practices.</li> </ul>	This will include applying appropriate hazard management plans and enforcing Occupational Health and Safety (OHS) enforcement by contractors.
	Public Health and Environmental Act, 2015	<ul style="list-style-type: none"> <li>- Under this act, in section 119: "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."</li> </ul>	<ul style="list-style-type: none"> <li>- The lodge construction and operations will ensure compliance to the terms of the Act.</li> </ul>
<b>Services and Infrastructure</b>	Road Ordinance 1972 (Ordinance 17 Of 1972)	<ul style="list-style-type: none"> <li>- Width of proclaimed roads and road reserve boundaries (S3.1)</li> <li>- Control of traffic during construction activities on trunk and main roads (S27.1)</li> <li>- Infringements and obstructions on and interference with proclaimed roads. (S37.1)</li> <li>- Distance from proclaimed roads at which fences are erected (S38)</li> </ul>	<ul style="list-style-type: none"> <li>- Although the project is a major boost for the constituency and the commodities market, the proponent needs to ensure that the development do not affect the major roads within their vicinity during construction and operation phases.</li> </ul>



## **3. CHAPTER THREE: RECEIVING ENVIRONMENT**

### **3.1. Introduction**

In this chapter, the findings of the EIA Team on baseline surveys, public consultation and desk reviews undertaken are in respect to the ecology, socio-economy and geo-political set up of the project area.

### **3.2. Socio-Economic status**

Based on the latest census results (Namibia Statistics Agency (NSA), 2012) the total population for Dâures constituency in the Erongo Region of Namibia is 11,350 in 2011, up from 10,289 in 2001. Dâures Constituency extends from the national road B2 around Karibib to the Ugab River and has a radius of approximately 120 km. The largest settlement in the constituency is Uis and it is serviced by Karibib town. The constituency also contains the settlements of Okombahe and Omatjette, as well as the smaller populated places of Omihana, Ovitua, Odama, Okamapuku, Ozondati, and Tubusis which rely on mining, tourism, agriculture, wildlife management and government employment.

Some of the current economic activities taking place in the areas in and around Karibib include a mix of mining (large and small scale) and farming activities. In terms of mining the most significant activity is the open pit Navachab gold mine. Ownership of the mine was transferred to the United Kingdom-based QKR Corporation this year (2014). According to the Namibian Sun (2014) the mine employed approximately 480 people. Up until 2009 a marble crusher located within the Karibib Townlands was also still operational, but was closed down owing to various economic, technical and environmental issues (Namibian, 2009). Navachab mine is planning to expand their mining operation and thus more employment opportunities will be created.

The Namibian Defence Force (NDF) plans to develop a new Air Force Base in Karibib. It is anticipated that approximately 7 000 NDF members will relocate to Karibib (Namib Times, 2014). The percentage of the total of residents in Karibib of working age (15 years) and older that are unemployed is 30%, which is lower than the national percentage of 37% (NSA, 2012). However, unemployment is still a concern and this proposed mineral exploration might result in the establishment of a mine.

### **3.3. Climate**

Karibib is located in an arid to semi-arid region with approximately half of the district covered by dryland grasses and the other half by dryland scrub. The climate is characterised as a hot desert climate (and designated by the BWh symbol as per Köppen and Geiger climate classification).

The average annual temperature is 21.9 °C. The lowest temperatures are typically encountered in the three month period between June and August, with the coldest temperatures in mid-August ranging from approximately 7-10 °C. The lowest average temperatures are experienced in July (approximately 17 °C).

The highest temperatures are reported between late October and early February with January being, on average, the hottest month with an average temperature of 25.2 °C. Peak average temperatures reach up to 32 °C (generally in mid-November).

The average annual rainfall is about 239 mm ([www.en.climate-data.org/location/2187](http://www.en.climate-data.org/location/2187)) with most falling between January and April; February experiences the most rain with an average of 71 mm. Most rainfall is associated with vigorous thunderstorms. Climatic conditions offer no impediment to exploration on the Project, with mineral exploration activities possible all year round).

### 3.4. Fauna

#### Reptiles

Endemic reptile species known and/or expected to occur in the general area make up 22.9% of the reptiles and although not as high as endemism elsewhere – for example the western escarpment areas of Namibia – still makes up a large portion of the reptiles. Reptiles of greatest concern are probably *Mehelya vernayi* and *Psammophis jallae*) and the tortoises (*Stigmochelys pardalis* and *Psammobates oculiferus*) which are often consumed by humans. *Python natalensis*, which is holds a conservation status on the rd species lists. Other important species would be the 3 Blind snakes (*Rhinotyphlops* species of which 2 species are endemic) and little known and endemic *Hemirhagerrhis viperrinus* (viperine bark snake). However, none of the reptiles are exclusively associated with the proposed project site, as established during the Baseline survey by the EAP.

#### Amphibians

Of the 11 species of amphibians expected to occur in the general area, *Pyxicephalus adspersus*, is viewed as near threatened (Du Preez and Carruthers 2009). However, *Pyxicephalus adspersus* is widespread throughout Namibia and not exclusively associated with Brandberg and Karibib area.

#### Mammals

There are at least 250 species of mammals in Namibia. Currently 14 mammal species are considered endemic to Namibia of which 11 species are rodents and small carnivores of which very little is known.

**Table 2: Common Species in Erongo Region Environs** below, gives an overview of animal diversity in the area, however within the project site only small animals such as squirrels and rabbits have been observed, whilst several species in the antelope (*Gemsbok*, *Springbok*, etc.) family have been said to be highly prevalent in the areas during EIA consultation process and these will be preserved during construction as they are important for a pristine tourist accommodation facility.

**Table 2: Common Species in Erongo Region Environs**

Specie	Status
<i>Black rhino</i>	endangered
<i>Kudu</i>	
Gemsbok	
Hartmann’s mountain zebra	
springbok	
red hartebeest	Endangered
<i>Springhare</i>	
<i>Lynx</i>	Endemic
<i>Mongoose</i>	
<i>Oryx gazella</i>	
<i>African wild dog</i>	
<i>Cynictis penicillata</i>	
<i>Alcelaphus buselaphus</i>	
<i>Tragelaphus strepsiceros</i>	
<i>Lepus saxatilis</i>	
<i>Manis temminckii</i>	
<i>Phacochoerus africanus</i>	

### 3.5. Avifauna

Namibia has about 658 species of birds (Barnard, 1998). High diversity of bird species in the study area is expected to occur in riverine environs which are to the southern end of the project site. The highland savannah in which the study area is, have relatively high diversity of birds. This is probably because of the fact that the highland savannah vegetation type is at the interface of the Kalahari to the east, Karoo to the south, thorn bush savannah to the north and escarpment to the west. Birds from all these biomes and vegetation types occur around the highland savannah..

***Bird species of conservation importance expected to occur in the area include the following species which are endemic to Namibia:***

- *Pternistis hartlaubi* (Hartlaub’s Spurfowl)
- *Tockus monteiri* (Monteiro’s Hornbill)
- *Tockus damarensis* (Damara Hornbil)
- *Phoeniculus damarensis* (Violet Wood-Hoopoe)
- *Poicephalus rueppellii* (Rüppell’s Parrot)
- *Agapornis roseicollis* (Rosy-faced Lovebird)
- *Eupodotis rueppellii* (Rüppell’s Korhaan)
- *Lanioturdus torquatus* (White-tailed Shrike)
- *Parus carpi* (Carp’s Tit)
- *Achaetps pycnopygius* (Rockrunner)

The EIA baseline study identified some nests in the trees farm and these trees will not be affected by the proposed construction activities. The affected land portion however is already devoid of vegetation that would habit nests and thus there will be little to no effect.

### 3.6. Flora

#### Trees / Shrubs and Grasses

Karibib is situated on the edge of the Central-Western Plains stretching from the coast to about 450 km to the east which connects the Escarpment. The escarpment divides most of the country into two general landscapes: the low lying coastal plain (which includes Karibib), and the higher inland plateau (Khomas Hochland to the east of Karibib). The elevation within Karibib varies between 1150 and 1450 metres. The study area is mainly comprised of four habitat types namely:

- Marble ridges; and
- Ephemeral river channels;

During the field assessment, observed were old and magnificent specimens of the protected *Sterculia africana* (see images below) can be found. Although this tree species is widely distributed throughout the country, its range is largely restricted to rocky outcrops and hill slopes. In addition, a number of *Commiphora* species were observed among the same marble ridges. *Commiphora glaucescens* (near endemic species) was the more dominant species on the slopes while *commiphora saxicola* (endemic species) was observed on top of the marble ridge. The other common plants on site are shrubs composed mainly of white thorn, pencil bush, *Aloe littoralis* and *aloeas perifolia*.

**Table 3: Common Plant Species occurring on the project area**

SPECIE	STATUS	OBSERVED
<i>Bursaria spinosa</i>		√
<i>Acacia erioloba</i>	<i>Protected</i>	√
<i>Acacia mellifera</i>		
<i>Acacia haematoxylon</i>		
<i>Acacia erubescens</i>		√
<i>Acacia karroo</i>		
<i>Acacia tortolis</i>		√
<i>Acacia hereroensis</i>		√
<i>Commiphora tenuipetiolata</i>		
<i>Aloe littoralis</i>	<i>(Protected: nature conservation ordinance)</i>	
<i>Ozoroa crassinervia</i>	<i>Near endemic, protected</i>	
<i>Boscia albitrunca</i>	<i>Near endemic, protected</i>	



Albizia anthelmintica	<i>Protected</i>	
Ziziphus mucronata		
Combretum apiculatum		
Commiphora dinteri	<i>Endemic, protected</i>	
Commiphora glandulosa		
Commiphora glaucescens	<i>Endemic, protected</i>	
Croton gratissimus		
Cyphostemma bainesii		
Dichrostachys cinerea		√
Diospyros lycioides		
Dombeya rotundifolia	<i>Endemic, protected</i>	
Ehretia alba		
Elephantorrhiza suffruticosa		
Combretum apiculatum		
Commiphora dinteri		
Euclea pseudebenus	<i>Protected</i>	
Euclea undulata		
Euphorbia guerichiana		
Euphorbia virosa		
Ficus cordata	<i>Protected</i>	
Ficus ilicina		
Ficus sycomorus	<i>Protected</i>	
Grewia bicolor		
Grewia flava		
Grewia flavescens		
Gymnosporia senegalensis		
Ipomoea adenioides		
Euclea pseudebenus		
Lycium bosciifolium		
Lycium cinereum		
Lycium eenii		
Lycium hirsutum		
Lycium villosum		
Maerua juncea		
Maerua schinzii	<i>Protected</i>	

Manuleopsis dinteri	<i>Near endemic</i>	
Melianthus comosus		
Obetia carruthersiana	<i>Near endemic</i>	
Pechuel-Loeschea		√
Searsia (Rhus) ciliata		
Searsia (Rhus) lancea	<i>Protected</i>	



**Figure 7: Top Left: Cyphostemma currorii , Acacia white thorn trees and bushes**

**Figure 8: Top Right: Damara Euphorbia (Euphorbia Damarana) widespread in the area**

**Figure 9: Bottom Left- Project site is sparsely vegetated**

(The lodge development is being done, whilst protecting vegetation in the area)

**Figure 10: Bottom Right- Pencil Bush**

### 3.7. Archaeology

No rock art sites appear to be in the area reserved exclusively for tourism development at this stage of the project. Should the proponent find any archaeological/rock art sites during the next project phase, these will be acknowledged and proper guidelines will be followed to have them protected.

## 4. CHAPER FOUR: PUBLIC CONSULTATION

Public and Stakeholder involvement, is a key component of the EA process. The public consultation process, as set out in Section 21 of Regulation No 30 of EMA, has been followed during this assessment and the details thereof documented below.

### 4.1. Printed Media

#### 4.1.1. Background Information Document

A Background Information Document (BID) was drafted at the onset of the EA process to act as a useful information handout about the proposed lodge development. In addition, the BID provided details on the public consultation process with contact details for further information. This document was advertised for availability through various means of newspaper articles, Public meeting and electronic mail; see Appendix B of this document.



#### 4.1.2. Newspaper Advertisements & Articles

Newspaper notices about the proposed project and related EA processes was circulated in two newspapers for two weeks. These notices appeared in the “Confidante” and “Windhoek Observer” newspapers, shown in Appendix B.

#### 4.1.3. Site Notices

A site notice was placed at the project site and at City of Windhoek Notice Board. These provided information about the project and related EA while providing contact details of the project team.



**Figure 11(top): Site Notice at Spitzkoppe.**

**Figure 12(bottom): Site Notice at the project site**

#### **4.1.4. Building a Stakeholder Database**

A stakeholder database for the project collected through a variety of means. During the advertisement of the project (through public notices in local newspapers and site-notices) the list was augmented as Interested & Affected Parties (I&AP) registered and contact information of stakeholders updated, please refer to Appendix B.

#### **4.1.5. Stakeholder Meetings & Key Conversations**

A public meeting was scheduled Saturday 25 September 2020 at Farm Libertas, Time: 1400HRS, however few people attended because there are less community members in this part of the area. To augment the meeting, the consultant engaged the local headman and the traditional authority.

#### **4.1.6. Comments and review period**

From the onset of the public consultation process and the initial information sharing through the BID, newspaper and site notices, various stakeholders have registered and provided comments. All of the immediate neighbours are not in support of the initiative due to several reasons. The Scoping Report and Environmental Management Plan was made available to the public and stakeholders for comment and review. Questionnaires and proof of stakeholder's engagement are attached in appendix B of this EAR.



## 5. CHAPTER FIVE: ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS

### 5.1. Overview

Dinaledi Lodges and Campsites cc has committed to sustainability and environmental compliance through coming up with a corrective action plan for all anticipated environmental impacts associated with the project. This is also in line with the Namibian Environmental Management legislation and International best practices on tourism infrastructure and resorts development. The proponent will implement an Environmental Management Plan (EMP) in order to prevent, minimise and mitigate negative impacts. The environmental management plan is being developed to address all the identified expected impacts, the plan will be monitored and updated on a continuous basis with aim for continuous improvement to addressing impacts.

### 5.2. Assessment Of Impacts

This section sets out the overall approach that was adopted to assess the potential environmental and social impacts associated with the project. To fully understand the significance of each of the potential impacts each impact must be evaluated and assessed. The definitions and explanations for each criterion are set out below in Table 4: Assessment Criteria and

**Table 4: Assessment Criteria**

<b>Duration – What is the length of the negative impact?</b>	
None	No Effect
Short	Less than one year
Moderate	One to ten years
Permanent	Irreversible
<b>Magnitude – What is the effect on the resource within the study area?</b>	
None	No Effect
Small	Affecting less than 1% of the resource
Moderate	Affecting 1-10% of the resource
Great	Affecting greater than 10% of the resource
<b>Spatial Extent – what is the scale of the impact in terms of area, considering cumulative impacts and international importance?</b>	
Local	In the immediate area of the impact
Regional / National	Having large scale impacts
International	Having international importance
<b>Type – What is the impact</b>	
Direct	Caused by the project and occur simultaneously with project activities
Indirect	Associated with the project and may occur at a later time or wider area
Cumulative	Combined effects of the project with other existing / planned activities



Probability	
Low	<25%
Medium	25-75%
High	>75%

*(Adopted from ECC-Namibia, 2017)*

**Table 5: Impact Significance**

Class	Significance	Descriptions
1	Major Impact	Impacts are expected to be permanent and non- reversible on a national scale and/or have international significance or result in a legislative non- compliance.
2	Moderate Impact	Impacts are long term, but reversible and/or have regional significance.
3	Minor	Impacts are considered short term, reversible and/or localized in extent.
4	Insignificant	No impact is expected.
5	Unknown	There are insufficient data on which to assess significance.
6	Positive	Impacts are beneficial

*(Adopted from ECC-Namibia, 2017)*

**Table 6: Environmental Impacts and Aspects Assessment**

Environmental Impact	Valued Ecosystem Component	Impact	Project Phase	Duration	Magnitude	Extent	Type	Probability	Significance
<b>TOPOGRAPHY</b>	Landscape Scenery	Visual aesthetic impact	Construction and Operation	Moderate	Moderate	Local	Direct	Medium 25 - 75%	Minor
<b>SOIL</b>	Soil	Contamination to soil from waste disposal	Construction and Operations	Moderate	Small	Local	Direct	Low <25%	Minor
	Soil	Spillages of fuel, oil and lubricants.	Construction	Short	Small	Local	Direct	Low <25%	Minor
	Soil	Erosion	Construction	Moderate	Small	Local	Direct	Low <25%	Minor
<b>LAND CAPABILITY</b>	Terrestrial ecology and aquatic ecosystems	Change in land use	Construction and Operations	Permanent	Great	Local	Direct	Low <25%	Moderate
<b>WATER</b>	Surface water quality	Water pollution from oils and lubricants from vehicles and machinery.	Construction and Operations	Moderate	Moderate	Local	Direct	Medium 25 - 75%	Moderate
	Groundwater quality	Water pollution from oils and lubricants	Construction	Moderate	Small	Local	Direct	Low <25%	Moderate
<b>AIR QUALITY</b>	Noise Pollution	-Noise During Construction and operation	Construction and Operations	Moderate	Moderate	Local	Direct	Medium 25 - 75%	Moderate
	Dust Pollution	-Construction dust	Construction	Moderate	Moderate	Local	Direct	High >75%	High
<b>WASTE</b>	Groundwater quality	Hazardous waste such as waste oil and lubricants.	Construction and Operations	Short	Small	Local	Direct	Low <25%	Minor
	Topography and Landscape	Visual impacts due to infrastructure and unsustainable handling and disposal of waste.	Construction and Operations	Short	Small	Local	Direct	Low <25%	Minor

Environmental Impact	Valued Ecosystem Component	Impact	Project Phase	Duration	Magnitude	Extent	Type	Probability	Significance
<b>FAUNA</b>	Aquatic life	Antifouling paints, eutrophication and sedimentation of streams.	Construction, Operations	Moderate	Small	local	Direct	Low <25%	Minor
	Terrestrial ecology and biodiversity	Destruction of vertebrate fauna (e.g. road kills; fence and construction /land clearing mortalities)	Construction and Operations	Long	Moderate	Local	Direct	Low <25%	Minor
<b>FLORA</b>	Terrestrial ecology and biodiversity	Proliferation of invasive species inland	Construction and Operations	Long	Moderate	Local	Direct	High >75%	Moderate
	Terrestrial ecology and biodiversity	Loss of unique flora and special habitats in the local environment because of general nuisance and animal migrate.	Construction and operations	None	Moderate	Regional	Direct	Low <25%	Moderate
<b>SOCIAL</b>	Noise Pollution	Increased noise levels	Construction, Operation	Moderate	Small	Local	Direct	Low <25%	Minor
	Socio Economic Activities	Temporary and permanent employment prospects.	Construction and operations	Long	Moderate	Regional	Direct	Medium 25 – 75%	Positive
	Contribution to National Economy	Employment, local procurement, duties and taxes.	Construction and Operations	Short	None	Regional / National	Direct	Low <25%	Positive

Environmental Impact	Valued Ecosystem Component	Impact	Project Phase	Duration	Magnitude	Extent	Type	Probability	Significance
<b>HERITAGE/ARCHAEOLOGY</b>	Artefacts, archaeological high value components	Destruction or affecting paleontological and archaeological artefacts	Construction and Operation	Moderate	Moderate	Local	Direct	Medium 25 – 75%	Moderate
<b>HEALTH AND SAFETY</b>	Health Sanitation	Poor ablution and waste management facilities may be detrimental to human health.	Construction and Operation	Moderate	Moderate	Local	Direct	Medium 25 – 75%	Moderate
	Property and human life	Electrical hazards and fires may result in fatalities, damage to properties and power surges.	Construction and Operation	Moderate	Great	Local	Direct	Medium 25 – 75%	Major

## 6. CONCLUSION

The proposed lodge and campsite establishment project is desirable in Daures Constituency, given the fact that tourism sector grew in the year 2019 and after the COVID-19 pandemic, there is going to be a boom in travel. Surrounding environments are less risky and not likely to be immensely affected by the project as alluded in the Impact assessment matrix. The results of the public consultation process indicated that the Interested and Affected Parties welcome the proposed development and City of Windhoek has already given a greenlight, pending this EIA. Attention was drawn to the need to hire local labour during construction and operation.

Based on the findings of the basic assessment, potential project impacts during construction and operation phases can be minimized to an acceptable level. An Environmental Management Plan has been developed by EnviroPlan to ensure that it addresses all potential negative impacts anticipated from the project and enhance all positive impacts for a more beneficial impact.

Based on the findings of the ESR, EnviroPlan Consulting recommends that The Department of Environmental Affairs Approve the Environmental Clearance Certificate Application on Basis of full compliance to the developed Environmental Management Plan.



# APPENDICES