Rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" to "hotel", Windhoek, Khomas Region

July 2024

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PROJECT DETAILS

Title	Environmental Scoping Report for the: ▪ Rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality for the construction of a hotel.		
Report Status	FINAL		
SPC Reference	W/24004		
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LEGAL NOTICE

EXECUTIVE SUMMARY

Introduction

Palmquell Hospitality Investments (Proprietary) Limited, hereinafter referred to as the proponent intends to undertake the following activities:

- **Rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality for the construction of a hotel.**

The above development triggers listed activities in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012).

As such the proponent appointed Stubenrauch Planning Consultants (SPC) to undertake an independent Environmental Assessment (EA) in order to obtain an Environmental Clearance Certificate (ECC) for the above activities. The competent authority is the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs and Forestry (MEFT: DEAF).

Project Description

Palmquell Hospitality Investments (Proprietary) Limited (the proponent), intends to rezone Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality" for the construction of a hotel and to upgrade the existing establishment which currently accommodates 19 rooms in order to accommodate at least 30 rooms and elevate its status to that of a hotel. This ambitious expansion aligns with the growing demand for quality hospitality services in the region.

This re-planning exercise is to modernize and expand the hotel to enhance its capacity to 30 rooms since the current zoning does not allow for the establishment of a hotel, which is pivotal for Palmquell Pension Hotel to achieve its desired status and expand its operations. Consequently, rezoning to hospitality is imperative to align the property's use with its intended purpose.

Furthermore, the Proponent is seeking approval to increase the current height of the establishment which only has the ground floor to at least three stories. This proposal is linked to the intention to increase the hotel's room capacity from the existing 19 to an envisioned 27, necessitating a thoughtful reconsideration of the hotel's vertical expansion.

Due to the expansion of the Palmquell Pension Hotel, traffic is expected to increase, therefore, the Proponent is committed to implementing traffic management measures, including designated parking areas in line with the City of Windhoek's Zoning Scheme.

The decision to construct upwards is supported by the intention to incorporate a basement parking area, efficiently utilizing the available space for parking, and minimizing the footprint at ground

level. The two additional stories will be allocated for hotel facilities, ensuring a seamless integration of functional spaces while adhering to the principles of sustainable urban development.

The proposed rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality" will also enable the City of Windhoek to generate additional revenue through rates and taxes. These funds can then be directed towards upgrading municipal service delivery and social facilities.

Public Participation

Communication with Interested and Affected Parties (I&APs) about the proposed development was facilitated through the following means and in this order:

- A Background Information Document (BID) containing descriptive information about the proposed activities was compiled and sent out to all identified and registered I&APs via email on **16 February 2024**;
- Notices were placed in the Namibian, and the New Era newspapers dated **16 February 2024 and 23 February 2024**, briefly explaining the activity and its locality, inviting members of the public to register as I&APs (**Appendix B**); and
- A notice was fixed at the project site (see **Appendix A**).

Public consultation was carried out according to the Environmental Management Act's EIA Regulations. After the initial notification, the I&APs were given two weeks to submit their comments on the project (until **08 March 2024**).

The Draft Scoping Report was circulating from **26 March 2024 until the 15 April 2024** so that the public could review and comment on it. No comments were received during the above comment period. The comment period will remain open until the final scoping report is submitted to MEFT.

Conclusions and Recommendations

With reference to **Table 8**, none of the negative construction phase impacts were deemed to have a high significant impact on the environment. The construction impacts were assessed to a ***Medium to Low (negative)*** significance, without mitigation measures. With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP**,** the significance of the construction phase impacts is likely to be reduced to a ***Low (negative)***.

With reference to **Table 8**, none of the negative operational phase impacts were deemed to have a high significance impact on the environment. The operational impacts were assessed to a ***Medium (negative)*** significance, without mitigation measures. With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP**,** the significance of the construction phase impacts is likely to be reduced to a ***Low (negative)***.

It is recommended that this project be authorised because should the development not proceed the subject area will remain in its current state, whereby the existing facility will remain zoned for

residential, and no upgrading of the facility will be done to enhance the status to that of a hotel. Thus, none of the positive or negative impacts associated with the intended development would realize.

The “no go” alternative was thus deemed to have a High (negative) impact, as all the benefits resulting from the development would not be realised.

The significance of negative impacts can be reduced with effective and appropriate mitigation provided in this report and the EMP. If authorised, the implementation of the EMP should be included as a condition of approval.

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CRR	Comments and response report
dB	Decibels
DESR	Draft Environmental Scoping Report
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
EAR	Environmental Assessment Report
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
FESR	Final Environmental Scoping Report
GTZ	Gesellschaft für Technische Zusammenarbeit
HIV	Human Immunodeficiency Virus
I&AP	Interested and Affected Party
IBA	Important Bird Area
IUCN	International Union for Conservation of Nature
MEFT	Ministry of Environment, Forestry and Tourism
MEFT: DEAF	Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs and Forestry
MURD	Ministry of Urban and Rural Development
MWTC	Ministry of Works Transport and Communication
NAMPAB	Namibia Planning Advisory Board
NPC	Namibia Planning Commission
PPP	Public Participation Process
SADC	Southern African Development Community
SPC	Stubenrauch Planning Consultants
USAID	United States Agency for International Development
VMMC	Voluntary Medical Male Circumcision

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Palmquell Hospitality Investments (Proprietary) Limited , hereinafter referred to as the proponent intends to undertake the following activities:

- **Rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality for the construction of a hotel.**

The above development triggers listed activities in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012).

In terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012), the following listed activities in **Table 1** were triggered by the proposed project:

Table 1: List of triggered activities identified in the EIA Regulations which apply to the proposed project

Activity description and No(s):	**Description of relevant activity**	**The portion of the development as per the project description that relates to the applicable listed activity**
Activity 5.1 (a) Land Use and Development Activities	The rezoning of land from Residential use to industrial or commercial use	The proposed project includes the rezoning from Residential to hospitality.
Activity 6 Tourism Development Activities	The construction of resorts, lodges, hotels or other tourism and hospitality facilities	The proposed project includes the construction of a hotel.

The above activities will be discussed in more detail in Chapter 4. The proponent appointed Stubenrauch Planning Consultants (SPC) to undertake an independent Environmental Assessment (EA) in order to obtain an Environmental Clearance Certificate (ECC) for the above activities. The competent authority is the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs (MEFT: DEAF).

The process will be undertaken in terms of the gazetted Namibian Government Notice No. 30 Environmental Impact Assessment Regulations (herein referred to as EIA Regulations) and the Environmental Management Act (No 7 of 2007) (herein referred to as the EMA). The EIA process will

investigate if there are any potential significant bio-physical and socio-economic impacts associated with the intended activities. The EIA process would also serve to provide an opportunity for the public and key stakeholders to provide comments and participate in the process.

1.2 PROJECT LOCATION

Erf 3978, No.60 Jan Jonker Road is situated in the upper market residential neighborhood of Klein Windhoek, as depicted in **Figure 1** below and it measures 5539m² in extent.

1.3 OWNERSHIP AND STATUS QUO

According to Deeds of Transfer Number T5389/2022 ownership of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek vests with Palmquell Hospitality Investments (Proprietary) Limited (Company Number: 2021/0992). It is currently accommodated the Palmquell Pension Hotel with a capacity of 19 rooms.

1.4 ZONING

Erf 3978, No. 60 Jan Jonker Road Klein Windhoek is currently zoned Residential with a bulk of 1:900 according to the City of Windhoek's Zoning Certificate and it falls within the 1:500 density area as per the City of Windhoek's Klein Windhoek Policy Area Map.

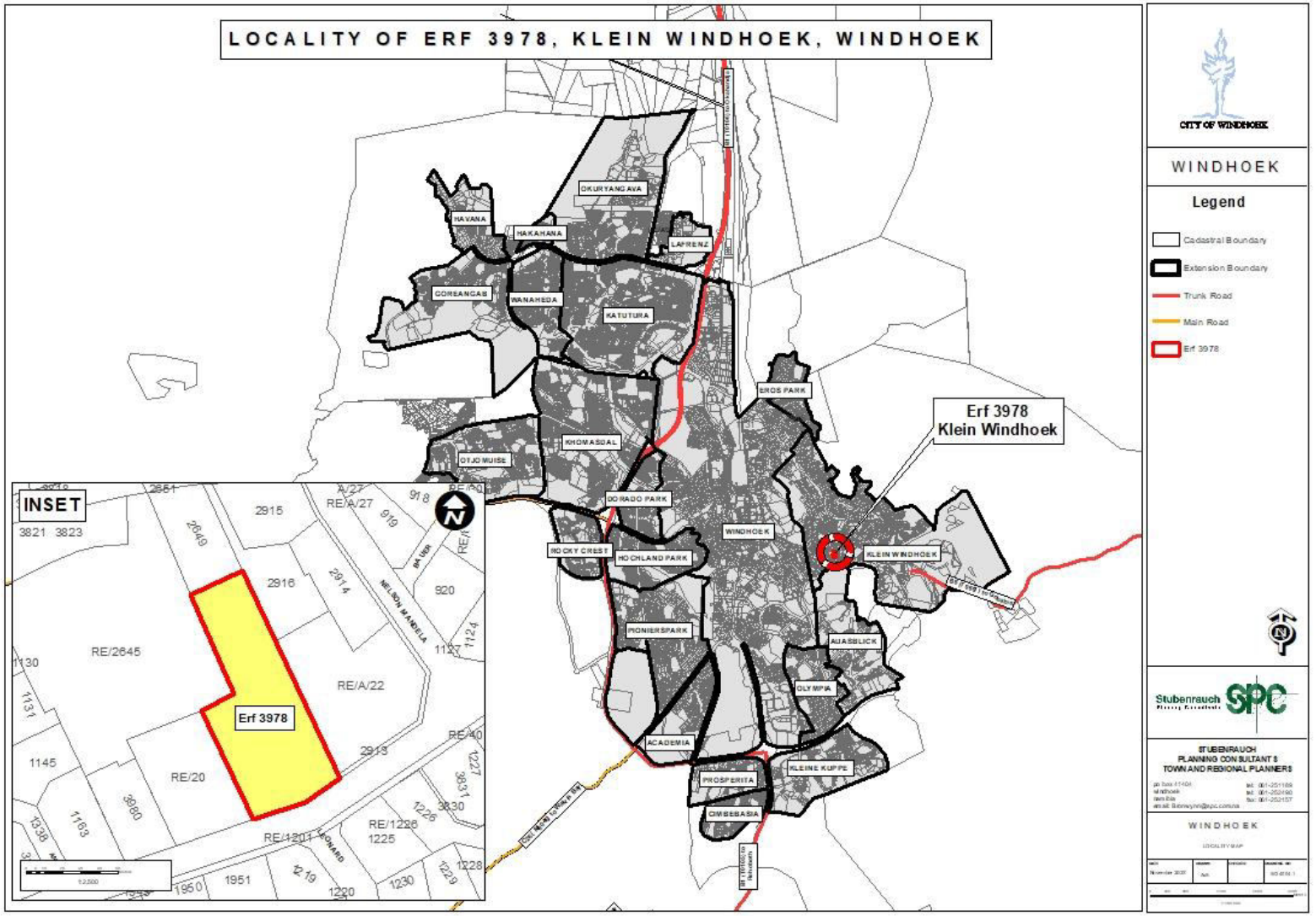

Figure 1: Locality map of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek

1.5 TERMS OF REFERENCE AND SCOPE OF PROJECT

The scope of this project is limited to conducting an environmental impact assessment and applying for an Environmental Clearance Certificate for the following as indicated in section 1.1 above:

- **Rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality for the construction of a hotel.**

1.6 ASSUMPTIONS AND LIMITATIONS

In undertaking this investigation and compiling the Environmental Scoping Report, the following assumptions and limitations apply:

- Assumes the information provided by the proponent is accurate and discloses all information available.
- The limitation that no alternative except for the preferred layout plans and the 'no-go' option was considered during this assessment. The unique character and appeal of the Klein Windhoek area were however taken into consideration with the design perspective.

1.7 CONTENT OF ENVIRONMENTAL ASSESSMENT REPORT

Section 8 of the gazetted EIA Regulations requires specific content to be addressed in a Scoping / Environmental Assessment Report. **Table 2** below is an extract from the EMA and highlights the required contents of a Scoping / Environmental Assessment Report whilst assisting the reader to find the relevant section in the report.

Table 2: Contents of the Scoping / Environmental Assessment Report

Section	Description	Section of FESR/ Annexure
8 (a)	The curriculum vitae of the EAPs who prepared the report;	Refer to **Annexure E**
8 (b)	A description of the proposed activity;	Refer to Chapter 4
8 (c)	A description of the site on which the activity is to be undertaken and the location of the activity on the site;	Refer to Chapter 3
8 (d)	A description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed listed activity;	Refer to Chapter 3

Section	Description	Section of FESR/ Annexure
8 (e)	An identification of laws and guidelines that have been considered in the preparation of the scoping report;	Refer to Chapter 2
8 (f)	Details of the public consultation process conducted in terms of regulation 7(1) in connection with the application, including	Refer to Chapter 5
	(i) the steps that were taken to notify potentially interested and affected parties of the proposed application	Refer to Chapter 5
	(ii) proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the proposed application have been displayed, placed or given;	Refer to **Annexures A** and **B** for site notices and advertisements respectively.
	(iii) a list of all persons, organisations and organs of state that were registered in terms of regulation 22 as interested and affected parties in relation to the application;	Refer to **Annexure C**
	(iv) a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues;	Refer to **Annexure C**
8 (g)	A description of the need and desirability of the proposed listed activity and any identified alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives have on the environment and on the community that may be affected by the activity;	Refer to Chapter 4
8 (h)	A description and assessment of the significance of any significant effects, including cumulative effects, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any	Refer to Chapter 7

Section	Description	Section of FESR/ Annexure
	construction, erection or decommissioning associated with the undertaking of the proposed listed activity;	
8 (i)	terms of reference for the detailed assessment;	NB – Assessment of impacts are included in this EA Report
8 (j)	An environmental management plan	Refer to **Annexure F**

2 LEGAL FRAMEWORK

2.1 LEGISLATION RELEVANT TO THE PROPOSED DEVELOPMENT

There are multiple legal instruments that regulate and have a bearing on good environmental management in Namibia. **Table 3** below provides a summary of the legal instruments considered to be relevant to this development and the environmental assessment process.

Table 3: Legislation applicable to the proposed development

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
The Constitution of the Republic of Namibia as Amended	Article 91 (c) provides for duty to guard against "the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia." Article 95(l) deals with the "maintenance of ecosystems, essential ecological processes and biological diversity" and sustainable use of the country's natural resources.	Sustainable development should be at the forefront of this development.
Environmental Management Act No. 7 of 2007 (EMA)	Section 2 outlines the objective of the Act and the means to achieve that. Section 3 details the principle of Environmental Management	The development should be informed by the EMA.
EIA Regulations GN 28, 29, and 30 of EMA (2012)	GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.	The following listed activities are triggered by the proposed development: **Activity 5.1 (a) Land Use and Development Activities** **Activity 6 Tourism Development Activities**
Convention on Biological Diversity (1992)	Article 1 lists the conservation of biological diversity amongst the objectives of the convention.	The project should consider the impact it will have on the biodiversity of the area.
Draft Procedures and Guidelines for conducting EIAs and compiling EMPs (2008)	Part 1, Stage 8 of the guidelines states that if a proposal is likely to affect people, certain guidelines should be considered by the proponent in the scoping process.	The EA process should incorporate the aspects outlined in the guidelines.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Namibia Vision 2030	Vision 2030 states that the solitude, silence and natural beauty that many areas in Namibia provide are becoming sought after commodities and must be regarded as valuable natural assets.	Care should be taken that the development does not lead to the degradation of the natural beauty of the area.
Water Act No. 54 of 1956	Section 23(1) deals with the prohibition of pollution of underground and surface water bodies.	The pollution of water resources should be avoided during construction and operation of the development.
The Ministry of Environment and Tourism (MET) Policy on HIV & AIDS	MET has recently developed a policy on HIV and AIDS. In addition, it has also initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.	The proponent and its contractor must adhere to the guidelines provided to manage the aspects of HIV/AIDS. Experience with construction projects has shown that a significant risk is created when migrant construction workers interact with local communities.
Urban and Regional Planning Act No 5 of 2018	To consolidate the laws relating to urban and regional planning; to provide for a legal framework for spatial planning in Namibia; to provide for principles and standards of spatial planning; to establish the urban and regional planning board; to decentralise certain matters relating to spatial planning; to provide for the preparation, approval and review of the national spatial development framework, regional structure plans and urban structure plans; to provide for the preparation, approval, review and amendment of zoning schemes; to provide for the establishment of townships; to provide for the alteration of boundaries of approved townships, to provide for the disestablishment of approved townships; to provide for the change of name of approved townships; to provide for the subdivision and consolidation of land; to provide for the alteration,	The proposed development must adhere to the provisions regarding the subdivision and rezoning of land.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	suspension and deletion of conditions relating to land; and to provide for incidental matters.	
Local Authorities Act No. 23 of 1992	The Local Authorities Act prescribes the manner in which a town or municipality should be managed by the Town or Municipal Council.	The development must comply with provisions of the Local Authorities Act.
Labour Act no. 11 of 2007	Chapter 2 details the fundamental rights and protections. Chapter 3 deals with the basic conditions of employment.	Given the employment opportunities presented by the development, compliance with the labour law is essential.
National Heritage Act No. 27 of 2004	The Act is aimed at protecting, conserving and registering places and objects of heritage significance.	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before they may be relocated.
Roads Ordinance 17 of 1972	• Section 3.1 deals with width of proclaimed roads and road reserve boundaries • Section 27.1 is concerned with the control of traffic on urban trunk and main roads • Section 36.1 regulates rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads • Section 37.1 deals with Infringements and obstructions on and interference with proclaimed roads.	Adhere to all applicable provisions of the Roads Ordinance.
Public and Environmental Health Act of 2015	This Act (GG 5740) provides a framework for a structured uniform public and environmental health system in Namibia. It covers notification, prevention and control of diseases and sexually transmitted infections; maternal, ante-natal and	Contractors and users of the proposed development are to comply with these legal requirements.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	neo-natal care; water and food supplies; infant nutrition; waste management; health nuisances; public and environmental health planning and reporting. It repeals the Public Health Act 36 of 1919 (SA GG 979).	
Nature Conservation Ordinance no. 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants must be managed within the legal confines.
Water Quality Guidelines for Drinking Water and Wastewater Treatment	Details specific quantities in terms of water quality determinants, which wastewater should be treated to before being discharged into the environment	These guidelines are to be applied when dealing with water and waste treatment
Environmental Assessment Policy of Namibia (1995)	The Policy seeks to ensure that the environmental consequences of development projects and policies are considered, understood and incorporated into the planning process, and that the term ENVIRONMENT is broadly interpreted to include biophysical, social, economic, cultural, historical and political components.	This EIA considers this term of Environment.
Water Resources Management Act No. 11 of 2013	Part 12 deals with the control and protection of groundwater Part 13 deals with water pollution control	The pollution of water resources should be avoided during construction and operation of the development. Should water need to be abstracted, a water abstraction permit will be required from the Ministry of Water, Agriculture and Forestry.
Forest Act 12 of 2001 and Forest Regulations of 2015	To provide for the establishment of a Forestry Council and the appointment of certain officials; to consolidate the laws relating to the management and use of forests and	Protected tree and plant species as per the Forest Act No 12 of 2001 and Forest Regulations of 2015 may not be removed without a permit

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	forest produce; to provide for the protection of the environment and the control and management of forest fires; to repeal the Preservation of Bees and Honey Proclamation, 1923 (Proclamation No. 1of 1923), Preservation of Trees and Forests Ordinance, 1952 (Ordinance No. 37 of 1952) and the Forest Act, 1968 (Act No. 72 of 1968); and to deal with incidental matters.	from the Ministry of Agriculture, Water and Forestry.
Atmospheric Pollution Prevention Ordinance No 45 of 1965	Part II - control of noxious or offensive gases, Part III - atmospheric pollution by smoke, Part IV - dust control, and Part V - air pollution by fumes emitted by vehicles.	The development should consider the provisions outlined in the act. The proponent should apply for an Air Emissions permit from the Ministry of Health and Social Services (if needed).
Hazardous Substance Ordinance 14 of 1974	To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the division of such substances into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances; and to provide for matters connected therewith.	The handling, usage and storage of hazardous substances on site should be carefully controlled according to this Ordinance.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Soil Conservation Act No 76 of 1969	Act to consolidate and amend the law relating to the combating and prevention of soil erosion, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources	The proposed activity should ensure that soil erosion and soil pollution is avoided during construction and operation.

This EIA process will be undertaken in accordance with the EIA Regulations. A Flow Diagram (refer to **Figure 2** below) provides an outline of the EIA process to be followed.

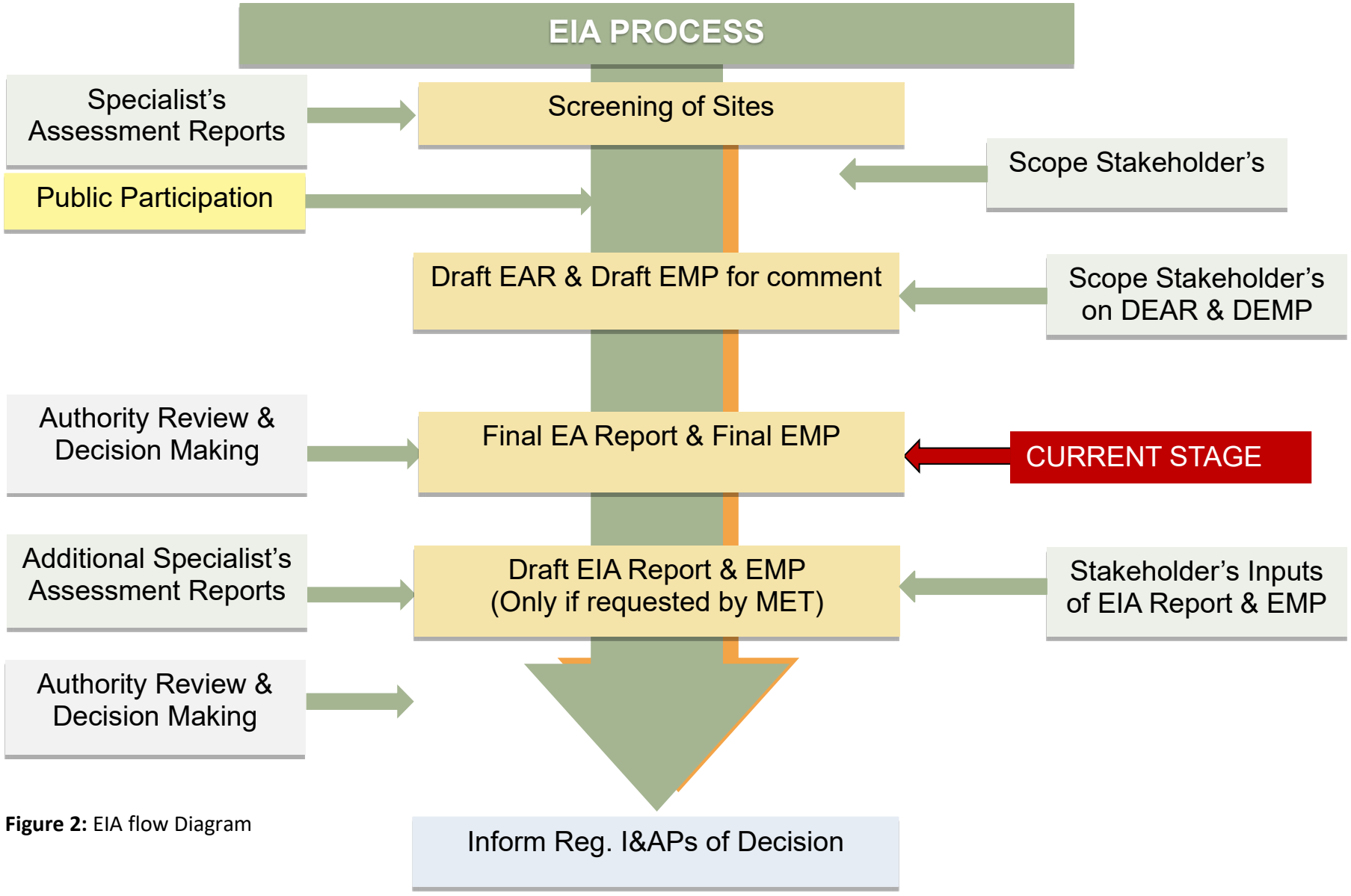

Figure 2: EIA flow Diagram

3 ENVIRONMENTAL BASELINE DESCRIPTION

3.1 SOCIAL ENVIRONMENT

3.1.1 Socio-Economic Context

The statistics shown in **Table 4** below are derived from the 2011 Namibia Population and Housing Census (Namibia Statistics Agency, 2013a), and presented from a local and regional perspective.

Table 4: Statistics of the Windhoek East Constituency and Khomas Region (Namibia Statistics Agency, 2013b)

WINDHOEK EAST CONSTITUENCY	
ATTRIBUTE	**INDICATOR**
Population	22 712
Females	11 342
Males	11 370
Population under 5 years	7%
Population aged 5 to 14 years	13%
Population aged 15 to 59 years	70%
Population aged 60 years and above	10%
Female: male ratio	100:100
Literacy rate of 15 years old and above	100%
People above 15 years who have never attended school	1%
People above 15 years who are currently attending school	18%
People above 15 years who have left school	77%
People aged 15 years and above who belong to the labour force	74%
Population employed	69%
Homemakers	3%
Students	11%
Retired or old age income recipients	8%
Income from pension	7%
Income from business and non-farming activities	19%
Income from farming	1%
Income from cash remittance	1%
Wages and salaries	67%
KHOMAS REGION	
ATTRIBUTE	**INDICATOR**
Population	342 141
Population aged 60 years and above	4%
Population aged 5 to 14 years	16%
Population aged 15 to 59 years	69%
Main Language	Oshiwambo Languages- 41%

3.1.2 Archaeological and Heritage Context

It is unlikely that the proposed project area will have any significant archaeological resources due to the fact that no major historical activity took place within close proximity to the sites. An accidental find procedure may, however, be required in the EMP.

3.2 BIO-PHYSICAL ENVIRONMENT

3.2.1 Climate

No specific climate data is available for study area, however Windhoek and surroundings in general are characterized with a semi-arid highland savannah climate typified as very hot in summer and moderate dry in winter. The highest temperatures are measured in December with an average daily temperature of maximum 31ºC and a minimum of 18ºC. The temperature throughout the year would be called mild, due to altitude influence. The coldest temperatures, conversely, are measured in July with an average daily maximum of 20ºC and minimum 3ºC as depicted in **Figure 3** below (Weather - the Climate in Namibia, 1998 – 2012). The area therefore has low frost potential. The predominant wind in the region is easterly with westerly winds from September to December (Weather - the Climate in Namibia, 1998 – 2012). Extreme winds are experienced in the months of August and September and thus significant wind erosion on disturbed areas is visible (Robertson, Jarvis, Mendelsohn, & Swart, 2012).

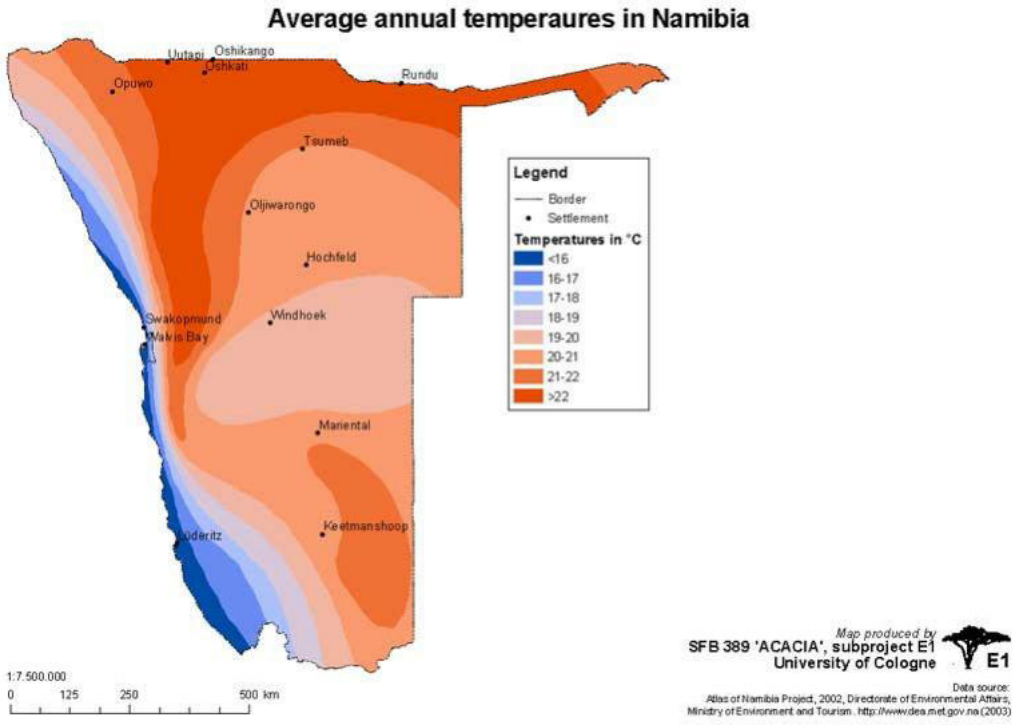

Figure 3: Annual average temperature (Acacia Project E1, n.d.)

The median annual rainfall varies between about 300-350mm as indicated in **Figure 4.** Rainfall is experienced mostly within the summer months, with some thunderstorms experienced during October to April.

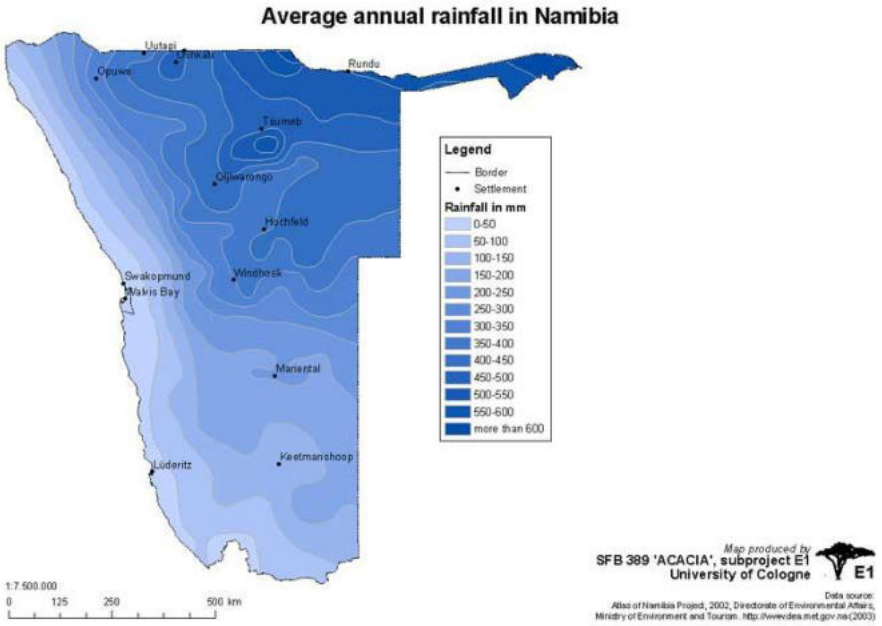

Figure 4: Average annual Rainfall (Acacia Project E1, n.d.)

3.2.2 Topography, Soils and Geology

The Region is located in the central highlands of the country and is bordered by the Erongo region to the west and the northwest and by the Otjozondjupa region to the north and Omaheke region to the east and Hardap region to the south. The landscape in the Khomas Region is classified as being in the Khomas Hochland, high Plateau, which is characterized by rolling hills and many valleys.

The Khomas Hochland is a deeply dissected mountain land of intermediate elevation, where the geomorphology is closely related to the underlying geology (Christelis and Struckmeier, 2001). The soil cover in the study area is the lithic leptosols referring to shallow soil cover overhard rocks. The main rock type is identified as biotite schist, but with minor strata of micaceous quartzite, feldspathic schist and amphibole schist (Labuschagne, 2004, and Mendelsohn, et al, 2002).

The subject area forms part of the Damara Supergroup and Gariep Complex geological division as depicted in **Figure 5**. This area is characterised by sandstone rock type (Mendelsohn, Jarvis, Roberts, *et al.*, 2002).

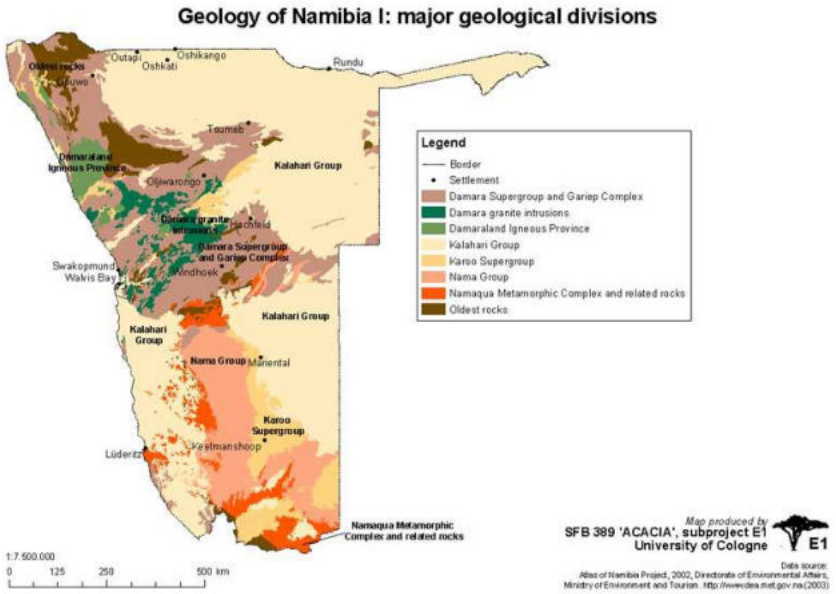

Figure 5: Geology of Namibia (Acacia Project E1, n.d.)

3.2.3 Hydrology and Hydrogeology

Namibia is grappling with a growing water scarcity issue due to severe changes in precipitation patterns and an arid climate — a condition only expected to worsen with climate change, making the country more susceptible to droughts.

The subject area has previously been disturbed and can therefore not be classified as pristine. The intended development is located within the Windhoek Townlands on land which has been earmarked for urban development town of Windhoek. The site is thus suitable for urban development.

The major share of the water supply for the city of Windhoek is stemming from three dam systems (Omatako Dam, Swakoppoort Dam, and Von Bach Dam) that store and accumulate surface water during the rainy season when the rivers are carrying water. The water is then purified and distributed into the supply systems. Surplus water that is not required for the direct supply of the city is injected into the Quartzite Aquifer after its purification. Additionally, a water treatment plant purifies wastewater up to drinking water standards and enables its injection and usage.

Most of the water used in the city of Windhoek is sourced some 500 km away, in the Berg Aukas area of northwestern Namibia (right), while the Windhoek aquifer only supplies about 10% of the demand. The schists and amphibolites of the Kuiseb Formation underlying the city of Windhoek are poor aquifers but can be used as storage facilities in the dry and high evaporation environment of the central Namibian highlands (B.S. Mapania).

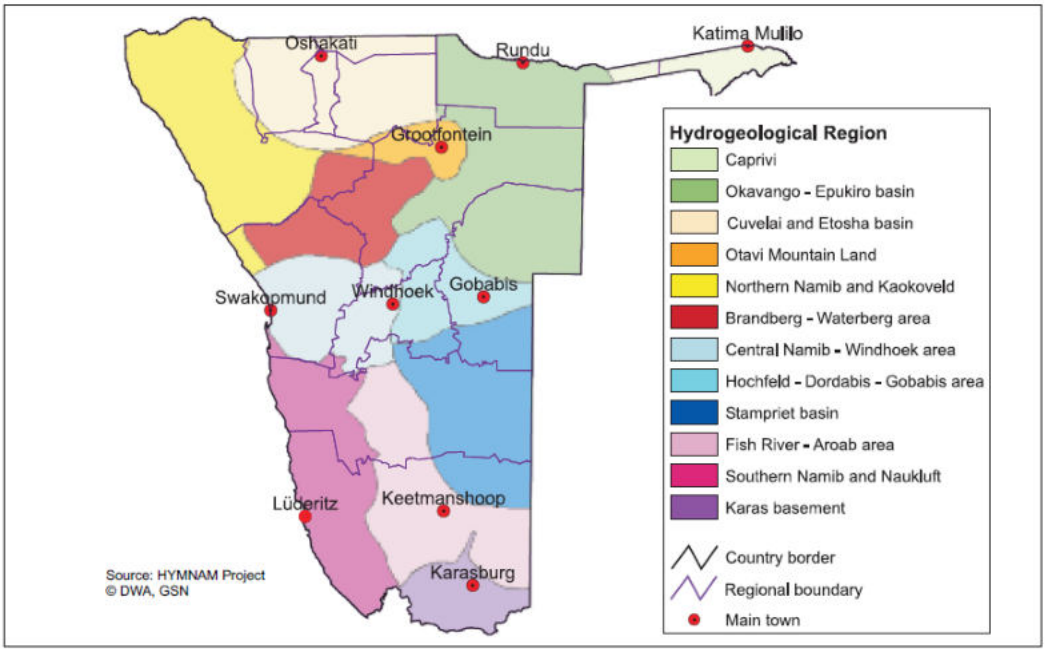

Figure 6: Groundwater basins and hydrogeological regions in Namibia (Ministry of Agriculture Water and Rural Development, 2011)

3.3 Terrestrial Ecology

3.3.1 Flora and Fauna

Potential flora associated with the general area commonly referred to as the Thornbush Savannah – Tree and Shrub Savannah – (Giess 1971) or Thornbush Shrubland (Mendelsohn et al. 2002). This is the dominant vegetation type in Namibia and although varies the typical form is grassveld interspersed with trees and large shrubs (Giess 1971).

The natural vegetation in the Windhoek area is classified as Savanna and Thornbush. The savanna is characterized by scattered trees, shrubs, and grasses, while the thornbush is dominated by woody shrubs with thorns. Scattered short grass and shrubs are also present in the area. According to Lawrence (1971), the vegetation of the region is classified as highland savanna and comprises several Acacia species and numerous species of perennial thorn trees in the valleys and shrubs and grass on the steep slopes.

The subject area falls within the Acacia Tree and shrub Savanna biome. It is characterised by Highland Shrubland which is dominated by shrubs and low trees. The vegetation structure of the area is dense shrubland.

There is limited wildlife in the Windhoek area due to urbanization. Common bird species that can be spotted in Windhoek include the Namibian Crow, the Crimson-breasted Shrike, and the Black-chested Prinia. Reptiles that can be found in the area include the Black-headed Python and the Spotted

Skaapsteker. Small mammals that can be found in the area include the Rock Dassie and the Striped Mouse.

The area has medium terrestrial diversity in terms of animal and plant life. Plant diversity is recorded to be between 300-399 species. The area has high plant endemism with between 26-35 endemic species believed to be found within the area.

In terms of animals the bird diversity is recorded to be between 171-200 species, mammal diversity between 61 -75 species and reptile diversity between 61- 70 species.

The subject site is currently developed and disturbed.

4 PROJECT DESCRIPTION

4.1 PROJECT COMPONENTS

As previously outlined in Section 1.1, the proposed project involves the following activities:

- **Rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality for the construction of a hotel.**

4.2 ALTERNATIVES

4.2.1 No – Go Alternative

The no-go alternative is the baseline against which all alternatives are assessed. The no-go alternative would essentially entail maintaining the current situation, whereby the existing facility will remain zoned for residential, and no upgrading of the facility will be done to enhance the status to that of a hotel. Thus, none of the positive or negative impacts associated with the intended development would realize.

4.3 THE PROPOSED DEVELOPMENT

Erf 3978, No. 60 Jan Jonker Road Klein Windhoek, currently accommodates the Palmquell Pension Hotel with the capacity of 19 bedrooms, offering a unique and welcoming environment to guests. As per the Namibia Tourism Board Act, No. 21 of 2000, for an accommodation establishment to be classified as a hotel, it should have at least 20 bedrooms. According to the current number of bedrooms in the Palmquell Pension Hotel and the size of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek, it can accommodate more than 20 bedrooms, hence, Palmquell qualifies to be a Hotel Pension. The Palmquell Pension Hotel has been an integral part of the community for many years and has significantly contributed to the economic sector of Windhoek.

It is with this nature discussed in the paragraph above, the Palmquell Hospitality Investments (Proprietary) Limited (the proponent), intends to rezone Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality" for the construction of a hotel and to upgrade the existing establishment which currently accommodates 19 rooms in order to accommodate at least 30 rooms and elevate its status to that of a hotel. This ambitious expansion aligns with the growing demand for quality hospitality services in the region.

This re-planning exercise is to modernize and expand the hotel to enhance its capacity to 30 rooms since the current zoning does not allow for the establishment of a hotel, which is pivotal for Palmquell Pension Hotel to achieve its desired status and expand its operations. Consequently, rezoning to hospitality is imperative to align the property's use with its intended purpose.

Furthermore, the Proponent is seeking approval to increase the current height of the establishment which only has the ground floor to at least three stories. This proposal is linked to the intention to increase the hotel's room capacity from the existing 19 to an envisioned 27, necessitating a thoughtful reconsideration of the hotel's vertical expansion.

Due to the expansion of the Palmquell Pension Hotel, traffic is expected to increase, therefore, the Proponent is committed to implementing traffic management measures, including designated parking areas in line with the City of Windhoek's Zoning Scheme.

The decision to construct upwards is supported by the intention to incorporate a basement parking area, efficiently utilizing the available space for parking, and minimizing the footprint at ground level. The two additional stories will be allocated for hotel facilities, ensuring a seamless integration of functional spaces while adhering to the principles of sustainable urban development.

The proposed rezoning of Erf 3978, No. 60 Jan Jonker Road Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality" will also enable the City of Windhoek to generate additional revenue through rates and taxes. These funds can then be directed towards upgrading municipal service delivery and social facilities.

4.3.1 Rezoning of Erf 3978 from "Residential" with a density of 1:900 to "Hospitality"

As depicted in **Figure 7 and 8** below, Erf 3978, Klein Windhoek (measuring 5539m²) is to be rezoned from "Residential" with a density of 1:900 to "Hospitality".

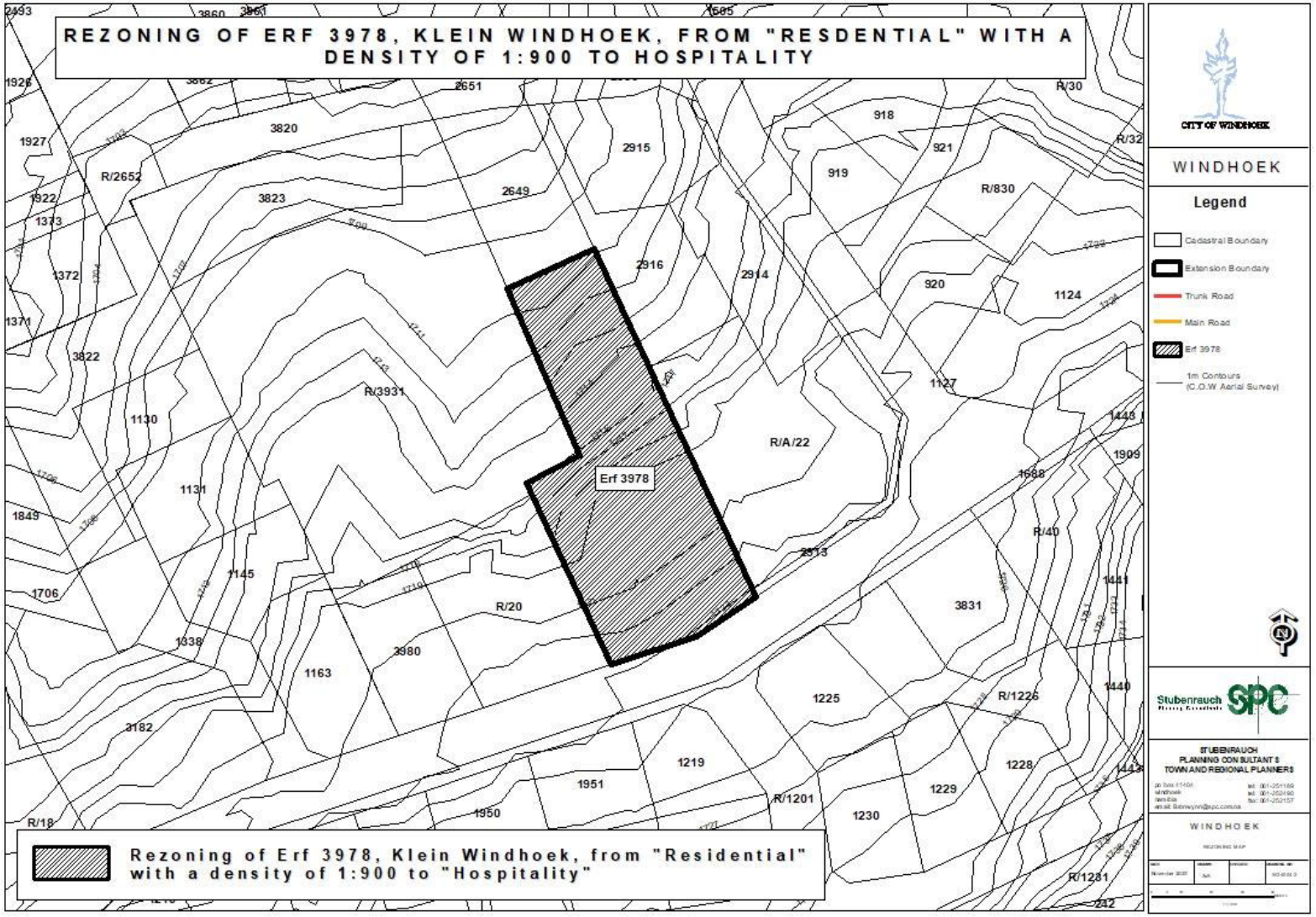

Figure 7: Rezoning of Erf 3978 Klein Windhoek from "Residential" with a density of 1:900 to "Hospitality".

Figure 8: Areal map of Erf 3978, Klein Windhoek

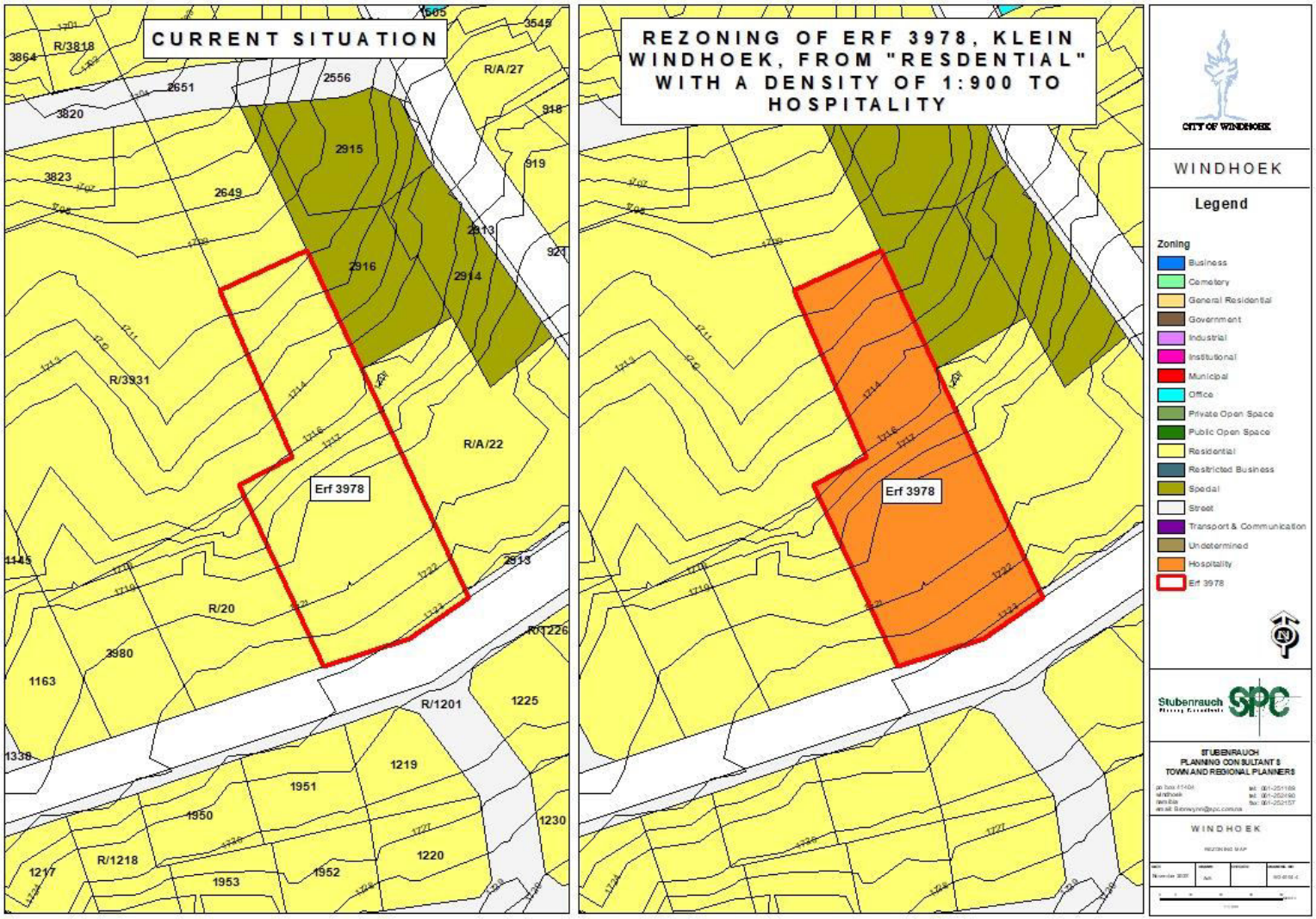

Figure 9: current situation on erf 3978, Klein Windhoek

4.4 ENGINEERING SERVICES AND ACCESS PROVISION

4.4.1 Electricity, Water, and sewer

Erf 3978, Klein Windhoek is fully connected the municipal service network of the City of Windhoek.

4.4.2 Storm Water

Storm water run-off will continue to be accommodated within the street reserves, as per the natural drainage patterns of the neighbourhood, and as stipulated by the Windhoek Municipal Council.

4.4.3 Access

Access to Erf 3978, No.60 Jan Jonker Road Klein Windhoek is obtained from the Jan Jonker Road. Seeing that the expansion of the existing development will spark an increase in traffic, the proponent has come up with the following mitigation namely, to keep the existing two access points of the hotel, with the western access as an entrance and the eastern side access as an exit point. This is done in order to mitigate traffic flow and to enhance visibility.

5 PUBLIC PARTICIPATION PROCESS

5.1 PUBLIC PARTICIPATION REQUIREMENTS

In terms of Section 21 of the EIA Regulations a call for open consultation with all I&APs at defined stages of the EIA process is required. This entails participatory consultation with members of the public by providing an opportunity to comment on the proposed project. Public Participation has thus incorporated the requirements of Namibia's legislation, but also takes account of international guidelines, including Southern African Development Community (SADC) guidelines and the Namibian EIA Regulations. Public participation in this project has been undertaken to meet the specific requirements in accordance with the international best practice. Please see **Table 5** below for the activities undertaken as part of the public participation process. The I&APs were given time to comment from **16 February 2024 to 08 March 2024.**

Table 5: Table of Public Participation Activities

ACTIVITY	REMARKS
Placement of site notice on site and at the City of Windhoek Municipality notice board.	See **Annexure A**
Placing advertisements in two newspapers namely the Namibian, and the New Era **(16 and 23 February 2024**)	See **Annexure B**
Written notice to surrounding property owners and Interested and Affected Parties via Email **(16 February 2024)**	See **Annexure C**

5.1.1 Environmental Assessment Phase 2

The second phase of the PPP involved the lodging of the Draft Environmental Scoping Report (DESR) to all registered I&APs for comment. Registered and potential I&APs were informed of the availability of the DESR for public comment *via* a letter/email dated **26 March 2024**. An Executive Summary of the DESR was included in the letters to the registered I&APs. I&APs had until **15 April 2024** to submit comments or raise any issues or concerns they may have with regard to the proposed project.

6 ASSESSMENT METHODOLOGY

The purpose of this chapter is to describe the assessment methodology utilized in determining the significance of the construction and operational impacts of the proposed project, and where applicable the possible alternatives, on the biophysical and socio-economic environment.

Assessment of predicted significance of impacts for a proposed development is by its nature, inherently uncertain – environmental assessment is thus an imprecise science. To deal with such uncertainty in a comparable manner, a standardised and internationally recognised methodology has been developed. Such accepted methodology is applied in this study to assess the significance of the potential environmental impacts of the proposed development, outlined as follows in **Table 6**.

Table 6: Impact Assessment Criteria

CRITERIA	CATEGORY
Impact	Description of the expected impact
Nature Describe type of effect	**Positive**: The activity will have a social / economical / environmental benefit. **Neutral**: The activity will have no effect **Negative**: The activity will have a social / economical / environmental harmful effect
Extent Describe the scale of the impact	**Site Specific:** Expanding only as far as the activity itself (onsite) **Small:** restricted to the site's immediate environment within 1 km of the site (limited) **Medium:** Within 5 km of the site (local) **Large:** Beyond 5 km of the site (regional)
Duration Predicts the lifetime of the impact.	**Temporary:** < 1 year (not including construction) **Short-term:** 1 – 5 years **Medium term:** 5 – 15 years **Long-term:** >15 years (Impact will stop after the operational or running life of the activity, either due to natural course or by human interference) **Permanent:** Impact will be where mitigation or moderation by natural course or by human interference will not occur in a particular means or in a particular time period that the impact can be considered temporary
Intensity Describe the magnitude (scale/size) of the Impact	**Zero:** Social and/or natural functions and/ or processes remain unaltered **Very low:** Affects the environment in such a way that natural and/or social functions/processes are not affected

CRITERIA	CATEGORY
	Low: Natural and/or social functions/processes are slightly altered **Medium:** Natural and/or social functions/processes are notably altered in a modified way **High:** Natural and/or social functions/processes are severely altered and may temporarily or permanently cease
Probability of occurrence Describe the probability of the Impact actually occurring	**Improbable:** Not at all likely **Probable:** Distinctive possibility **Highly probable:** Most likely to happen **Definite:** Impact will occur regardless of any prevention measures
Degree of Confidence in predictions State the degree of confidence in predictions based on availability of information and specialist knowledge	**Unsure/Low:** Little confidence regarding information available (<40%) **Probable/Med:** Moderate confidence regarding information available (40-80%) **Definite/High:** Great confidence regarding information available (>80%)
Significance Rating The impact on each component is determined by a combination of the above criteria.	**Neutral:** A potential concern which was found to have no impact when evaluated **Very low:** Impacts will be site specific and temporary with no mitigation necessary. **Low:** The impacts will have a minor influence on the proposed development and/or environment. These impacts require some thought to adjustment of the project design where achievable, or alternative mitigation measures **Medium:** Impacts will be experienced in the local and surrounding areas for the life span of the development and may result in long term changes. The impact can be lessened or improved by an amendment in the project design or implementation of effective mitigation measures. **High:** Impacts have a high magnitude and will be experienced regionally for at least the life span of the development or will be irreversible. The impacts could have the no-go proposition on portions of the development in spite of any mitigation measures that could be implemented.

*NOTE: Where applicable, the magnitude of the impact has to be related to the relevant standard (threshold value specified, and source referenced). The magnitude of impact is based on specialist knowledge of that particular field.
For each impact, the EXTENT (spatial scale), MAGNITUDE (size or degree scale) and DURATION (time scale) are described. These criteria are used to ascertain the SIGNIFICANCE of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The decision as to which combination of alternatives and mitigation measures to apply lies with the proponent, and their acceptance and approval ultimately with the relevant environmental authority.

The SIGNIFICANCE of an impact is derived by taking into account the temporal and spatial scales and magnitude. Such significance is also informed by the context of the impact, i.e. the character and identity of the receptor of the impact.

6.1 MITIGATION MEASURES

There is a mitigation hierarchy of actions which can be undertaken to respond to any proposed project or activity (See **10**). These cover avoidance, minimization, restoration and compensation. It is possible and considered sought after to enhance the environment by ensuring that positive gains are included in the proposed activity or project. If negative impacts occur, then the hierarchy indicates the following steps.

Impact avoidance: This step is most effective when applied at an early stage of project planning. It can be achieved by:

- not undertaking certain projects or elements that could result in adverse impacts;
- avoiding areas that are environmentally sensitive; and
- putting in place preventative measures to stop adverse impacts from occurring.

Impact minimization: This step is usually taken during impact identification and prediction to limit or reduce the degree, extent, magnitude, or duration of adverse impacts. It can be achieved by:

- scaling down or relocating the proposal;
- redesigning elements of the project; and
- taking supplementary measures to manage the impacts.

Figure 10: Mitigation Hierarchy

Restoration: This step is taken to improve degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimised. Restoration tries to return an area to the

original ecosystem that occurred before impacts. Restoration is frequently needed towards the end of a project's life-cycle but may be possible in some areas during operation.

Impact compensation: This step is usually applied to remedy unavoidable residual adverse impacts. It can be achieved by:

- rehabilitation of the affected site or environment, for example, by habitat enhancement;
- restoration of the affected site or environment to its previous state or better; and
- replacement of the same resource values at another location (off-set), for example, by wetland engineering to provide an equivalent area to that lost to drainage or infill.

7 ASSESSMENT OF POTENTIAL IMPACTS AND POSSIBLE MITIGATION MEASURES

7.1 INTRODUCTION

This Chapter describes the potential impacts on the biophysical and socio-economic environments, which may occur due to the proposed activities described in Chapter 4. These include potential impacts, which may arise during the operation of the proposed development (i.e. long-term impacts) as well as the potential construction related impacts (i.e. short to medium term). The assessment of potential impacts will help to inform and confirm the selection of the preferred layouts to be submitted to MEFT: DEAF for consideration. In turn, MEFT: DEAF's decision on the environmental acceptability of the proposed project and the setting of conditions of authorisation (should the project be authorised) will be informed by this chapter, amongst other information, contained in this EA Report.

The baseline and potential impacts that could result from the proposed development are described and assessed with potential mitigation measures recommended. Finally, comment is provided on the potential cumulative impacts which could result should this development, and others like it in the area, be approved.

7.1 PLANNING AND DESIGN PHASE IMPACTS

During the planning and design phase consideration should be given on aspects such as biodiversity.

7.1.1 Flora and Fauna (Biodiversity)

The project site is located within the urban surroundings of the city of Windhoek and in a transformed state. showing evidence of human interference as the surroundings are developed and being used for residentials whilst a portion on the subject area is already developed and the remaining has been cleared. Therefore, no protected plant species was observed on or near the site. The trees located on the subject site should be accommodated in the proposed development. Trees protected under the Forestry Act 12 of 2001 should be protected within the development and may not be removed without a permit from the local Department of Forestry.

7.2 CONSTRUCTION PHASE IMPACTS ON THE BIOPHYSICAL ENVIRONMENT

The construction phase impacts are those impacts on the biophysical and socio-economic environment that would occur during the construction phase. These impacts are inherently temporary in duration but may have longer lasting effects.

7.2.1 Flora and Fauna Impacts (Biodiversity)

The trees located on the subject site should be accommodated in the layout of the proposed use for the erf as far as possible. Trees to be protected should be marked with danger tape or paint to ensure that they are not removed during the construction activities. It is anticipated that the proposed development would have localised negative implications on the environment and associated fauna and flora should the proposed mitigation measures as outlined in the EMP be enforced.

7.2.2 Surface and Ground Water Impacts

Surface and groundwater impacts may be encountered during the construction phase, especially if development takes place within the rainy season. The risk of contaminating such water sources can be increased by accidental spillage of oils and fuels and any other equipment used during construction of the access roads. This risk is minimised by the fact that the construction phase will be a short-term activity.

7.2.3 Soil Erosion Impacts

Given the characteristics of the proposed site, soil erosion is likely to be encountered especially if construction will take place during the rainy season, the removal of vegetation will render the soil vulnerable to erosion as they also serve the purpose of keeping the soils compacted.

7.3 CONSTRUCTION PHASE IMPACTS ON THE SOCIO-EONOMIC ENVIRONMENT

7.3.1 Heritage impacts

No archaeological and heritage resources are expected to be found on the site. The project management should however be made aware of the provisions of the National Heritage Act regarding the prompt reporting of archaeological finds. Section 3.1.2 provides an overview of the archaeological and heritage context of the town and region.

7.3.2 Health, Safety and Security Impacts

Working conditions on site need to ensure that the health and safety of construction workers are ensured at all times. The use of local labour during construction is strongly encouraged so as to reduce the need for migrant workforce. Health and Safety requirements need to comply with the Labour Act No. 11 of 2007, local and international health and safety legislation and standards during construction.

7.3.3 Traffic Impacts

Traffic is expected to increase slightly during the construction phase of the project in areas where construction will take place. A number of trucks and other heavy machinery will be required to deliver, handle and position construction materials as well as to remove spoil material. Not only will the increase in traffic result in associated noise impacts, but it will also impact on the roads in the area. It will additionally create dust as most of the roads in the area are gravel roads.

7.3.4 Noise Impacts

Construction may result in associated noise impacts. These noise impacts will mainly be associated with construction machinery and construction vehicles. The impact is however limited mainly to the construction period only.

7.3.5 Dust and Emission Impacts

Excavation and stockpiles during the construction phase could result in dust impacts, if not managed correctly. Dust could impact negatively on the health of the nearby community if mitigation measures are not implemented. Dust impacts are primarily associated with the construction phase.

7.3.6 Municipal Services

The construction phase will result in additional people on-site, who will require provision of the following services:

- Potable water for domestic (ablution and drinking) and construction purposes.
- Temporary toilets during the construction phase.
- Solid waste management (domestic and construction waste).

These services should be managed in accordance with the EMP to reduce avoid water wastage; litter; solid and human waste pollution at the site.

7.3.7 Storage and Utilisation of Hazardous Substances

Hazardous substances are regarded by the Hazardous Substance Ordinance (No. 14 of 1974) as those substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances. During the construction period, the use and storage of these types of

hazardous substances, such as shutter oil, curing compounds, types of solvents, primers and adhesives and diesel, on-site could have negative impacts on the surrounding environment if these substances spill and enter the environment.

7.4 OPERATIONAL PHASE IMPACTS

The operational phase impacts are those impacts on the biophysical and socio-economic environment that would occur during the operational phase of the proposed project and are inherently long-term in duration.

7.4.1 Impacts on the surrounding area

The proposed development is not expected to have a negative impact on the nature and character of the surrounding area. The enhancements to the community's public open spaces, sidewalks, and roads may result from this rezoning. The local community would gain real advantages from this in addition to the area becoming more appealing to tourists. This renovation will improve the surrounding area by adding contemporary building styles and landscaping that accentuate Windhoek's natural beauty.

7.4.2 Traffic Impacts

Rezoning an area from residential to hospitality use could lead to more sporadic traffic patterns, with hotel visitors coming and going at different times from the usual residential area rush hours. There is a well-thought-out traffic management strategy in place, which calls for maintaining the hotel's two existing access points—the eastern access serving as an exit and the western access as an entrance—in order to improve visibility and reduce traffic.

7.4.3 Dust Impacts

Tracks to be created to allow access to the newly created portions will most likely be gravel, as such dust is expected to be generated when vehicles are travelling on the roads. Dust levels are however not expected to be significant due to the land uses for the portions.

7.4.4 Socio-economic impact

The development of a hotel in Windhoek will boost job creation, stimulate the local economy, and improve community well-being. It will also attract visitors, generate tax revenue for the Municipal Council, and fund community development projects like parks and public transit systems.

7.5 CUMULATIVE IMPACTS

The cumulative impacts of the proposed developments in regard to the degradation of the project area is very difficult to rate. If all proposed mitigation measures are however in place to minimise the overall impacts, then the cumulative impact can be expected to be rated as ***Medium-Low (negative)*** for the proposed developments.

7.1 ENVIRONMENTAL MANAGEMENT PLAN

An Environmental Management Plan (EMP) is contained in **Annexure F** of this report. The purpose of the EMP is to outline the type and range of mitigation measures that should be implemented during the construction and decommissioning phases of the project to ensure that negative impacts associated with the development are avoided or mitigated.

7.2 SUMMARY OF POTENTIAL IMPACTS

A summary of all the potential impacts from the proposed project assessed above is included in **Table 8**. The **Tables 9 to 11** provide a summary of the mitigation measures proposed for the impacts. While some difference in magnitude of the potential impacts would result from the proposed alternatives this difference was not considered to be significant for any of the potential impacts. As such, the table below applies to all proposed alternatives.

Table 7: Summary of the significance of the potential impacts

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
PLANNING AND DESIGN PHASE										
1. Biodiversity (Fauna and Flora)	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Short term	Medium	Probable	Certain	Reversible	Medium (-ve)
		Mitigation	Local	Very	Short term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
CONSTRUCTION PHASE										
2. Biodiversity (Fauna and Flora)	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very	Short term	Very Low	Probable	Certain	Reversible	Very Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
3. Surface & ground water	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Medium	Short term	Medium	Probable	Certain	Reversible	Medium (-ve)
		Mitigation	Local	Low	Short term	Medium - low	Probable	Certain	Reversible	Medium - Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
4. Soil erosion	Erf 3978, No. 60 Jan Jonker	No mitigation	Local	Medium	Short term	Medium – low	Probable	Certain	Reversible	Medium – low (-ve)
		Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
	Road Klein Windhoek									
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
5. Heritage	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Very low	Short term	Very low	Probable	Certain	Irreversible	Very low(-ve)
		Mitigation	Local	Negligible	Short term	Negligible	Probable	Certain	Irreversible	Negligible (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
6. Health, safety and security	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Medium-Low	Short term	Medium-Low	Probable	Certain	Reversible	Medium-Low (-ve)
		Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
7. Traffic impacts	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very low	Short term	Very low	Probable	Certain	Reversible	Very low
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
8. Noise impacts	Erf 3978, No. 60 Jan Jonker	No mitigation	Local	Medium - Low	Short term	Medium - low	Probable	Certain	Reversible	Medium - Low (-ve)

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
	Road Klein Windhoek	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
9. Emissions impacts	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very Low	Short term	Very Low	Probable	Certain	Reversible	Very Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
10. Municipal services	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very low	Short term	Very low	Probable	Certain	Reversible	Very low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
11. Waste	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Short term	Medium	Probable	Certain	Reversible	Medium (-ve)
		Mitigation	Local	Very low	Short term	Very Low	Probable	Certain	Reversible	low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
12. Hazardous Substances	Erf 3978, No. 60 Jan Jonker	No mitigation	Local	Medium	Short term	Medium	Probable	Certain	Reversible	Medium (-ve)

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
	Road Klein Windhoek	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
OPERATIONAL PHASE										
1. Impacts on the surrounding area	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very low	Medium term	Very low	Probable	Certain	Reversible	Very low (-ve)
	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
2. Dust Impacts	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Medium	Medium term	Medium	Probable	Certain	Reversible	Medium-Low (-ve)
		Mitigation	Local	Medium - Low	Medium term	Medium - Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
3. Traffic Impacts	Erf 3978, No. 60 Jan Jonker Road Klein Windhoek	No mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very low	Medium term	Very low	Probable	Certain	Reversible	Very low (-ve)

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral

Table 8: Proposed mitigation measures for the planning and design phase

PLANNING AND DESIGN PHASE IMPACTS	
Impact	**Mitigation Measures**
Flora and Fauna (Biodiversity)	• Do not clear cut the entire development site, but rather keep the individual trees/shrubs not directly affecting the developments as part of the landscaping. • Protected trees are not to be removed without a valid permit from the local Department of Forestry

Table 9: Proposed mitigation measures for the construction phase

CONSTRUCTION PHASE IMPACTS	
Impact	**Mitigation Measures**
Flora and Fauna	• Adapt the proposed developments to the local environment – e.g. small adjustments to the site layout could avoid potential features such as water bodies and vegetation. • Prevent the destruction of protected and endemic plant species. • Prevent contractors from collecting wood, veld food, etc. during the construction phase.

CONSTRUCTION PHASE IMPACTS	
Impact	**Mitigation Measures**
	• Recommend the planting of local indigenous species of flora as part of the landscaping as these species would require less maintenance than exotic species. • Prevent the introduction of potentially invasive alien ornamental plant species such as; *Lantana, Opuntia, Prosopis, Tecoma*, etc.; as part of the landscaping as these species could infest the area further over time. • Protected trees and plants are not to be removed without a valid permit from the Ministry of Agriculture, Water and Forestry.
Surface and Ground Water Impacts	• No dumping of waste products of any kind in or in close proximity to surface water bodies. • Heavy construction vehicles should be kept out of any surface water bodies and the movement of construction vehicles should be limited where possible to the existing roads and tracks. • Ensure that oil/ fuel spillages from construction vehicles and machinery are minimised and that where these occur, that they are appropriately dealt with. • Drip trays must be placed underneath construction vehicles when not in use to contain all oil that might be leaking from these vehicles. • Contaminated runoff from the construction sites should be prevented from entering the surface and ground water bodies. • All materials on the construction site should be properly stored. • Disposal of waste from the sites should be properly managed and taken to the designated landfill site. • Construction workers should be given ablution facilities at the construction sites that are located at least **30 m** away from any surface water and regularly serviced. • Washing of personnel or any equipment should not be allowed on site. Should it be necessary to wash construction equipment these should be done at an area properly suited and prepared to receive and contain polluted waters.
Soil Erosion	• Appropriate erosion control structures must be put in place where soil may be prone to erosion.

CONSTRUCTION PHASE IMPACTS	
Impact	**Mitigation Measures**
	• Checks must be carried out at regular intervals to identify areas where erosion is occurring. • Appropriate remedial actions are to be undertaken wherever erosion is evident.
Heritage	• The project management should be made aware of the provisions of the National Heritage Act regarding the prompt reporting of archaeological finds. • In the event of such finds, construction must stop, and the project management or contractors should notify the National Heritage Council of Namibia immediately.
Health, Safety and Security	• Construction personnel should not overnight at the site, except the security personnel. • Ensure that all construction personnel are properly trained depending on the nature of their work. • Provide for a first aid kit and a properly trained person to apply first aid when necessary. • Restrict unauthorised access to the site and implement access control measures. • Clearly demarcate the construction site boundaries along with signage of “no unauthorised access”. • Clearly demarcate dangerous areas and no-go areas on site. • Staff and visitors to the site must be fully aware of all health and safety measures and emergency procedures. • The contractor must comply with all applicable occupational health and safety requirements. • The workforce should be provided with all necessary Personal Protective Equipment where appropriate.
Traffic	• Limit and control the number of access points to the site. • Ensure that road junctions have good sightlines. • Construction vehicles’ need to be in a road worthy condition and maintained throughout the construction phase. • Transport the materials in the least number of trips as possible. • Adhere to the speed limit. • Implement traffic control measures where necessary.

CONSTRUCTION PHASE IMPACTS	
Impact	**Mitigation Measures**
Noise	• No amplified music should be allowed on site. • Inform immediate neighbours of construction activities to commence prior to commencing and provide for continuous communication between the neighbours and contractor. • Limit construction times to acceptable daylight hours. • Install technology such as silencers on construction machinery. • Do not allow the use of horns as a general communication tool but use it only where necessary as a safety measure.
Dust and Emission	• It is recommended that dust suppressants such as Dustex be applied to all the construction clearing activities to ensure at least 50% control efficiency on all the unpaved roads and reduce water usage. • Construction vehicles to only use designated roads. • During high wind conditions the contractor must make the decision to cease works until the wind has calmed down. • Cover any stockpiles with plastic to minimise windblown dust. • Provide workers with dust masks where necessary.
Waste	• It is recommended that waste from the temporary toilets be disposed of at an approved Wastewater Treatment Works. • A sufficient number of waste bins should be placed around the site for the soft refuse. • A sufficient number of skip containers for the heavy waste and rubble should be provided for around the site. • Solid waste will be collected and disposed of at an appropriate local land fill or an alternative approved site, in consultation with the local authority.
Hazardous Substances	• Storage of the hazardous substances in a bunded area, with a volume of 120 % of the largest single storage container or 25 % of the total storage containers whichever is greater.

CONSTRUCTION PHASE IMPACTS	
Impact	**Mitigation Measures**
	• Refuel vehicles in designated areas that have a protective surface covering and utilise drip trays for stationary plant.

Table 10: Proposed mitigation measures for the operational phase

OPERATIONAL PHASE IMPACTS	
Impact	**Mitigation Measures**
Dust	• Should dust levels become significant dust suppression techniques should be applied. • Waterless dust suppression means should be utilised within areas experiencing water scarcity.

8 CONCLUSION

The purpose of this Chapter is to briefly summarise and conclude the DESR and describe the way forward.

8.1 CONSTRUCTION PHASE IMPACTS

With reference to **Table 9**, none of the negative construction phase impacts were deemed to have a high significant impact on the environment. The construction impacts were assessed to a ***Medium to Low (negative)*** significance, without mitigation measures. With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP**,** the significance of the construction phase impacts is likely to be reduced to a ***Low (negative)***.

8.2 OPERATIONAL PHASE

With reference to **Table 9**, none of the negative operational phase impacts were deemed to have a high significance impact on the environment. The operational impacts were assessed to a ***Medium (negative)*** significance, without mitigation measures. With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP**,** the significance of the construction phase impacts is likely to be reduced to a ***Low (negative)***.

8.3 LEVEL OF CONFIDENCE IN ASSESSMENT

With reference to the information available at the project planning cycle, the confidence in the environmental assessment undertaken is regarded as being acceptable for the decision-making, specifically in terms of the environmental impacts and risks. The Environmental Assessment Practitioner believes that the information contained within this FESR is adequate to allow MEFT: DEAF to be able to determine the environmental acceptability of the proposed project.

It is acknowledged that the project details will evolve during the detailed design and construction phases. However, these are unlikely to change the overall environmental acceptability of the proposed project and any significant deviation from what was assessed in this DESR should be subject to further assessment. If this was to occur, an amendment to the Environmental Authorisation may be required in which case the prescribed process would be followed.

8.4 MITIGATION MEASURES

With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP, the significance of the construction and operational phase impacts is likely to be reduced to a ***Medium - Low (negative)***. **It is further extremely important to include an Environmental Control**

Officer (ECO) on site during the construction phase of the proposed project to ensure that all the mitigation measures discussed in this report and the EMP are enforced.

It is noted that where appropriate, these mitigation measures and any others identified by MEFT: DEAF could be enforced as Conditions of Approval in the Environmental Authorisation, should MEFT: DEAF issue a positive Environmental Authorisation.

8.5 OPINION WITH RESPECT TO THE ENVIRONMENTAL AUTHORISATION

Regulation 15(j) of the EMA, requires *that the EAP include an opinion as to whether the listed activity must be authorised and if the opinion is that it must be authorised, any condition that must be made in respect of that authorisation*.

It is recommended that this project be authorised because should the development not proceed the portion will remain mostly undeveloped and the proposed portions would not have access. None of the positive or negative impacts from the proposed development would be realized.

The "no go" alternative was thus deemed to have a ***High (negative)*** impact, as all the benefits resulting from the development would not be realised. The significance of negative impacts can be reduced with effective and appropriate mitigation provided in this report and the EMP. If authorised, the implementation of the EMP should be included as a condition of approval.

8.6 WAY FORWARD

The FESR is herewith submitted to MEFT: DEAF for consideration and decision making. If MEFT: DEAF approves, or requests additional information / studies all registered I&APs and stakeholders will be kept informed of progress throughout the assessment process.

9 REFERENCES

Acacia Project E1. n.d. Digital Atlas of Namibia*. [Online], Available: http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/main_namibia_atlas.html.*

Mendelsohn, J., Jarvis, A., Roberts, C. & Roberston, T. 2002. Atlas of Namibia*.*

Ministry of Agriculture Water and Rural Development. 2011. Groundwater in Namibia an explanation to the Hydrogeological Map*.*

Namibia Statistics Agency. 2013a. Namibia 2011 Population & Housing Census - Main Report. 214. [Online], Available: http://www.nsa.org.na/files/downloads/Namibia 2011 Population and Housing Census Main Report.pdf.

Namibia Statistics Agency. 2013b. Khomas 2011 Census Regional Profile*. [Online], Available: https://d3rp5jatom3eyn.cloudfront.net/cms/assets/documents/p19dptss1ri5r1f2kt6i5931i31g.pdf.*