

FINAL ENVIRONMENTAL SCOPING REPORT FOR THE SUBDIVISION OF THE REMAINDER OF OKARARA TOWN AND TOWNLANDS NO. 517 INTO PORTION 14 AND REMAINDER ON A 4 HA VIRGIN LAND PARCEL FOR THE DEVELOPMENT OF ULTRA-LOW- AND LOW-COST HOUSING IN THE OTJOZONDJUPA REGION, NAMIBIA.



OCTOBER 2022



Prepared by: Healthy Earth Environmental Consultants CC
P.O. Box 70436,
Khomasdal, Windhoek, Namibia
Contact Person: Tanaka D. Nyatoro
Contact Number: +264 (81) 720 258
Email: askheec@gmail.com



Prepared for: KMN PROPERTIES AND INVESTMENT CC
P.O. BOX 60641 KATUTURA
WINDHOEK, NAMIBIA
Contact Person: Mr. Kosora Mexted Ndjiruetse
Contact Number: +264 81 372 2440
Email: mexndjiruetse@yahoo.com

Title	ENVIRONMENTAL SCOPING REPORT FOR THE SUBDIVISION OF THE REMAINDER OF OKARARA TOWN AND TOWNLANDS NO. 517 INTO PORTION 14 AND REMAINDER ON A 4 HA VIRGIN LAND PARCEL FOR THE DEVELOPMENT OF ULTRA-LOW- AND LOW-COST HOUSING IN THE OTJOZONDJUPA REGION, NAMIBIA		
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Proponent	<p>KMN PROPERTIES AND INVESTMENT CC</p> <p>P.O. BOX 60641 KATUTURA</p> <p>WINDHOEK, NAMIBIA</p>  <p>Contact Person: Mr. Kosora Mexted Ndjiruetse</p> <p>Contact Number: +264 81 372 2440</p> <p>Email: mexndjiruetse@yahoo.com</p>		
Environmental Practitioner	<p>Healthy Earth Environmental Consultants CC</p> <p>P.O. Box 70436,</p> <p>Khomasdal, Windhoek,</p> <p>Namibia</p>  <p>Contact Person: Tanaka D. Nyatoro</p> <p>Contact Number: +264 (81) 720 258</p> <p>Email: askheec@gmail.com</p>		
Report submission date	October 2022		
	Name	Signature	Date
Author	Tanaka D. Nyatoro		28/10/2022

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EXECUTIVE SUMMARY

ENVIRONMENTAL ASSESSMENT FOR THE SUBDIVISION OF THE REMAINDER OF OKARARA TOWN AND TOWNLANDS NO. 517 INTO PORTION 14 AND REMAINDER ON A 4 HA VIRGIN LAND PARCEL FOR THE DEVELOPMENT OF ULTRA-LOW- AND LOW-COST HOUSING IN THE OTJOZONDJUPA REGION, NAMIBIA.

INTRODUCTION AND BACKGROUND

The status of Okakarara as a preferred tourist destination in the Otjozondjupa Region because of its proximity to the Waterberg National Park and a lot of historically interesting areas has been beneficial to the residents, as it brought with it an influx of the decentralized government ministries and their officials subsequently increasing the demand for land and housing. The Okakarara Town Council has responded positively to this demand by availing land, which in turn attracted developers and financial institutions to the town.

KMN Properties and Investment CC intends to service and develop a vacant single residential allotment being a subdivision of OKAKARARA TOWN & TOWNLANDS NO. 517, situated in the town of OKAKARARA that will be subdivided into 90 Freehold Allotments, for low-income residential purposes. The land is formally within the Okarara Townlands boundaries. KMN Properties and Investment CC propose to purchase the land from the Council, and to administer all the necessary planning, surveying, and engineering steps to create a new quality housing development that will complement the adjacent Usakos Township. The bulk infrastructural services will be constructed, and individual erven sold either on a plot and plan basis, or with the units included. In order to address the demand through urban infill, the proponent intends to undertake the following activities:

- **Subdivision of the Remainder of Okarara Town and Townlands No. 517 into Portion 14 And Remainder on a 4 Ha Virgin Land Parcel for the development of ultra-low- and low-cost housing in the Otjozondjupa Region, Namibia**

The above has contributed to KMN Properties and Investment CC choosing Okakarara as a viable investment destination. The proponent appointed Healthy Earth Environmental Consultants CC (HEEC) to undertake the Environmental Assessment (EA) to obtain an Environmental Clearance Certificate (ECC) for the above proposed activity. The competent authority is the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs (MEFT: DEA).

The process was undertaken in terms of the Namibian Government Notice No. 30 Environmental Impact Assessment Regulations (herein referred to as EIA Regulations) in terms of Environmental Management Act (No 7 of 2007) (herein referred to as the EMA). The EA scoping process investigated if there are any potential significant bio-physical and socio-economic negative impacts associated with the development and associated infrastructure and services. The EIA process served to provide an opportunity for the public and key stakeholders to provide comment



and participate in the process. Lastly, based on specific nature of the affected environment, specialist input will also be sourced as and when required.

PROJECT LOCATION

Okakarara has become one of the fastest growing towns in terms of development in the Otjozondjupa Region. The town is situated 50 kilometres southeast of the Waterberg National Park. The subject property is located towards the southwestern perimeter part of the town of Okakarara not too far from the established Pamue suburb in the town of Okakarara adjacent to the C22 Main Road, which can be described as a better type of area that's superior in terms of its location and immediate surrounding properties.

Particular node will be a new developing middle to high end area with its GPS co – ordinates at a latitude of 20°35'58.19"S and a longitude of 17°26'25.75"E. A larger locality map of the proposed development is attached to this report as **Annexure G**.



Figure 1: Locality map of Okakarara



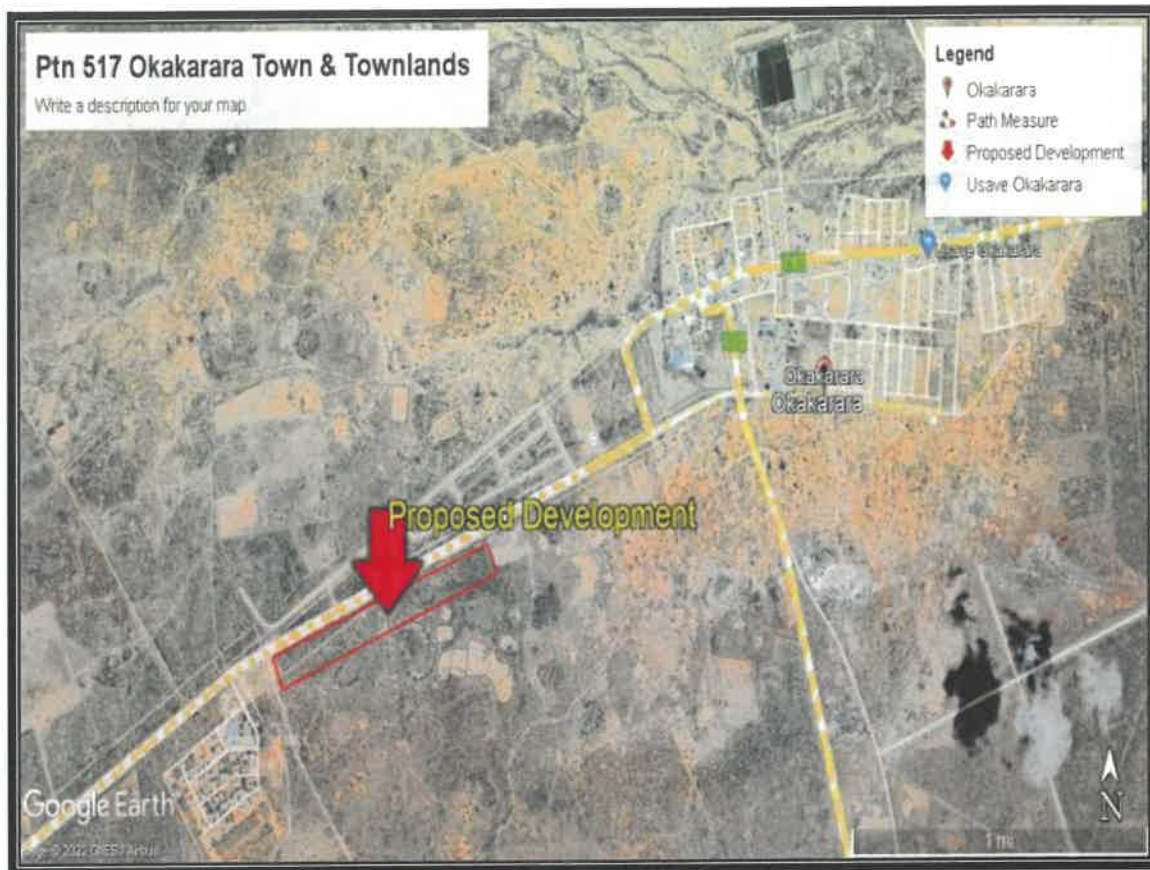


Figure 2: Locality Map of the Portion 517 Okakarara Town & Townlands

LEGISLATIVE FRAMEWORK

There are two clauses contained in the Namibian Constitution that are of particular relevance to sound environmental management practice, viz. articles 91(c) and 95(l). In giving effect to articles 91(c) and 95(l) of the Constitution of Namibia, general principles for sound management of the environment and natural resources in an integrated manner have been formulated. This resulted in Namibia's Environmental Assessment Policy of 1994. To give statutory effect to this Policy, the Environmental Assessment and Management Act was approved in 2007, and gazetted on 27 December 2007 as the Environmental Management Act (Act No. 7 of 2007) (herein referred to as the EMA), Government Gazette No. 3966. Part 1 of the EMA describes the various rights and obligations that pertain to citizens and the Government alike, including an environment that does not pose threats to human health, proper protection of the environment, broadened *locus standi* on the part of individuals and communities, and reasonable access to information regarding the state of the environment. Part 2 of the Act sets out 13 principles of environmental management. As the organ of state responsible for management and protection of its natural resources, MEFT:DEA is committed to pursuing these principles of environmental management.

The gazetted Namibian Government Notice No. 30 EIA Regulations (herein referred to as EIA Regulations) promulgated in terms of the EMA, identify certain activities, which could have a substantial detrimental effect on the environment. These listed activities require Environmental Clearance from the competent environmental authority, i.e. MEFT:DEA, prior to commencing. The following activities identified in the EIA Regulations apply to the proposed project:



Table 1: List of triggered activities

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 (d) Land Use and Development Activities	The rezoning of land from – use for nature conservation or zoned open space to any other land use.	The area will be subdivided and rezoned from undetermined to various zonings such as residential, business, local authority and agriculture etc.
Activity 8.9 Water resource developments	Construction and other activities within a catchment area.	There is a possibility of some construction taking place within <i>Oshana</i> catchments.
Activity 10.1 (a) (Infrastructure)	The construction of – Oil, water, gas and petrochemical and other bulk supply pipelines.	The proposed project includes the installation and connection of bulk services with the existing town network.
Activity 10.1 (b) (Infrastructure)	The construction of – Public roads.	The proposed project includes the construction of roads.
Activity 10.2 (a) (Infrastructure)	The route determination of roads and design of associated physical infrastructure where – it is a public road;	The proposed project includes the construction of roads.

In addition to the EMA and associated EIA Regulations, a suite of environmental guidelines, policies and legislation would be considered and incorporated into the environmental assessment process.

DEVELOPMENT PROPOSAL

The proposed project involves the subdivision of the Remainder of Okakarara Town and Townlands No. 517 into Portion 14 and Remainder on a 4 Ha Virgin Land Parcel for the development of ultra-low- and low-cost housing in the Otjozondjupa Region, Namibia. Okakarara Town Council had reserved the portion of land in question for “Residential” purposes as evidenced by the few housing structures in the vicinity. While some new township establishments have taken place in Okakarara, most extensions were focused on formalizing the existing homesteads hence the limited vacant new properties in Okakarara.

1.1.1 Remainder of Okakarara Town and Townlands No. 517 into Portion 14 and Remainder Description

The project has the aim to:

- Provide affordable serviced Erven,
- Contribute to the diversification of the local economy of Okakarara Town



1.1.1.1 SITE DETAILS

Comprising of the following erven namely, Single Residential, 90 (40,805m²), General Business, 2 (2,366m²), Public Open Spaces (10,873m²) and a Road Reserve (20,294m²). Individual Single Residential erven varying between 457m² - 521m²

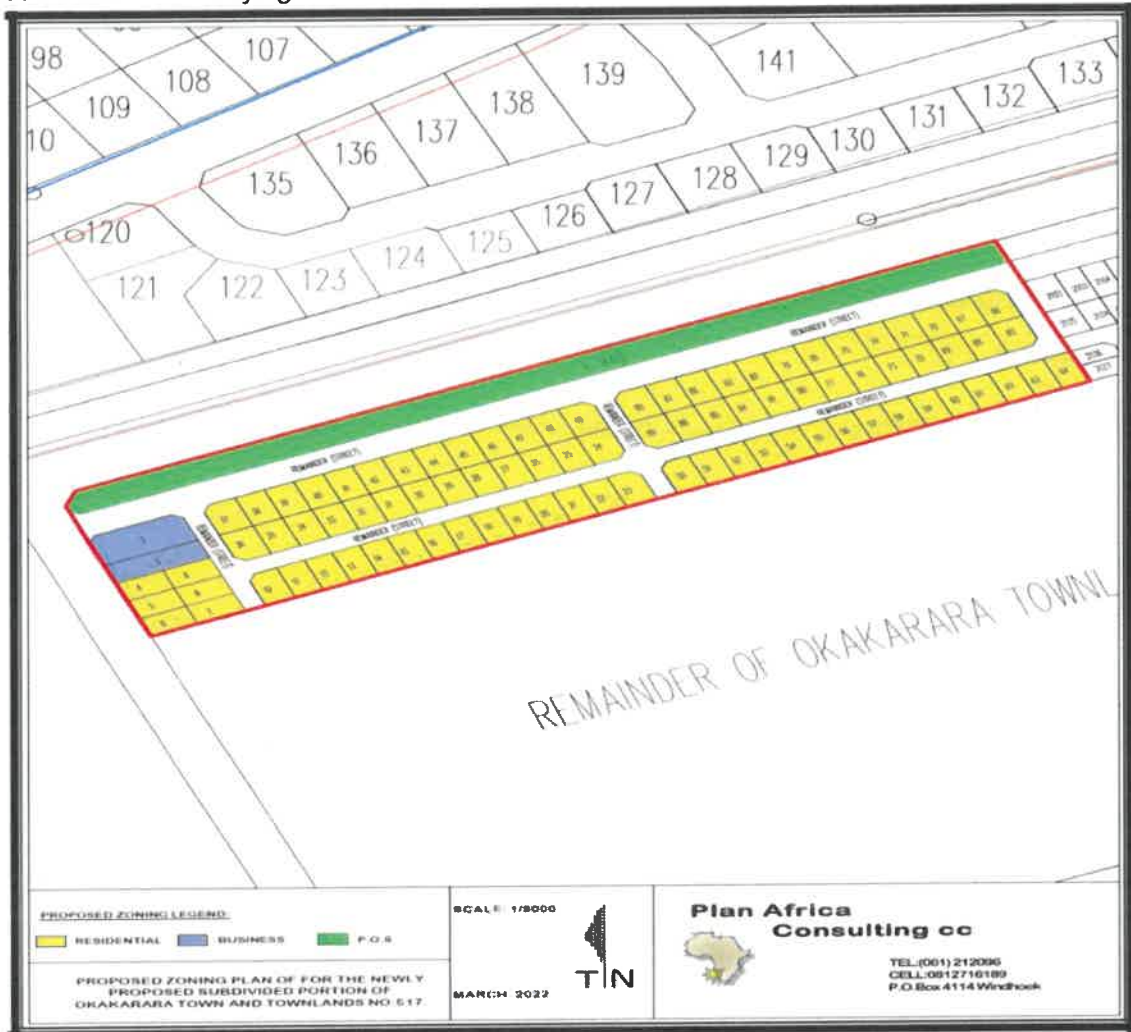


Figure 3: Subdivision map of Remainder of Okarara Town and Townlands No. 517 into Portion 14 and Remainder (PAC, 2022)



Table 2: IMPORTANT SALIENT AND FACTS

DESCRIPTION OF IMPROVEMENTS	
A vacant single residential allotment being a subdivision of OKAKARARA TOWN & TOWNLANDS NO. 517, situated in the town of OKAKARARA that will be subdivided into 90 Freehold Allotments.	
DESCRIPTION OF PROPERTY – ERF SIZES	
Single Residential	40,805 m ²
General Business	2,366 m ²
Public Open Spaces	10,873 m ²
Road Reserves	20,294 m ²
Total (Including Road Reserve)	74,338 m ²
SUMMARY OF IMPROVEMENTS	
Tenure	Freehold

A) AMENITIES

All applicable amenities such as schools, places of worship, etc. are available in close proximity.

B) TOPOGRAPHY

Nearly level in contour average sized allotments.

C) SERVICE INSTALLATIONS

Area to be fully serviced by the Developer with water, electricity, storm water drainage and refuses removal and will be characterized by gravel roads.

D) NEIGHBOURHOOD AND ZONING

Will be a new developing middle to high end area that will comprise of various zoned areas as per the description in the Important Salient and Facts. Neighbourhood can be classified as a middle to an above middle-income area.

1.1.1.2 PROPERTY DETAILS

Table 3: Property Details

Deeds Registry	Windhoek		
Region	Otjozondjupa		
Registration Division	"D"		
Local Authority	Okakarara Town Council		
Title Deed Number:	Tbc		
Registered Owner:	Unknown		
Purchase Price:	Unknown		
Registration Date:	Tbc		
Property Description	A Portion of Okakarara Town & Townlands No. 517		
Extent	74,338	m ²	7.4338 Hectares
Servitudes	Standard as per title deed		
Zoning	Single Residential		



PUBLIC PARTICIPATION PROCESS

In terms of the EIA Regulations, public participation is a fundamental component of the environmental assessment process. To ensure consistency with the legal requirements, the public participation process (PPP) will consist of the following processes:

The approach adopted for the initiation of the EIA and associated PPP was to identify and contact potential I&APs as possible through a number of activities which included:

- Placement of site notices/ posters in Okakarara namely, the Town Notice board, (refer to **Annexure A**);
- Placing advertisements in two newspapers namely the *Confidante* and *The Windhoek Observer* (refer to **Annexure B**);
- Giving written response of the proposed project to potentially affected stakeholders via email (refer to **Annexure D**);

POTENTIAL IMPACTS IDENTIFIED

Construction Phase Impacts

The construction phase impacts are those impacts on the biophysical and socio-economic environment that would occur during the construction phase of the proposed bulk services infrastructure. They are inherently temporary in duration, but may have longer lasting effects. The construction phase impacts could potentially include:

- Disturbance on biophysical environment (fauna and flora);
- Impact on surface and groundwater resources;
- Impact on soil erosion;
- Social impacts;
- Impact on archaeological, cultural and historic sites;
- Impact of increased vehicular traffic and heavy load transport;
- Impact of noise during construction (construction vehicles, etc.);
- Impact of dust on air quality; and
- General construction phase impacts, including amongst others:
 - Impact on municipal services;
 - Litter / waste pollution and disposal; and
 - Storage and utilization of hazardous substances on site.

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. The operational phase impacts could potentially include:

- Impact on surface and groundwater resources;
- Impact of Visual and sense of place;
- Impact of increased vehicular traffic and heavy load transport;



- Impact of noise during operation (operation vehicles, etc.);
- Impact of dust and emissions on air quality; and
- Impact of hazardous substances; and
- Social impacts.

CONCLUSION

The potential impacts of the proposed new township development in regard to the degradation of the vacant fairly disturbed project area (potential pollution of surface and groundwater, construction related impacts, degradation of flora and fauna), of which the exact type of residential and business activities are not yet know are very difficult to rate. If all proposed mitigation measures are however in place to minimize the overall impacts, then the overall impact can be expected to be rated as **Medium-Low (negative)** for the new extension.

It is recommended that this project be authorized, as the provision of the new township establishment including the much-needed added business erven with municipal services is highly important for the community to enhance their livelihoods as well to improve their business operations, to then in turn also uplift the general economy of the town. The new township extension will not only provide more serviced residential erven but will also provide more business land for potential entrepreneurs as well as more job creation. The significance of the social impact was therefore deemed to be **High (positive)**.

The “no go” alternative on the other hand was deemed to have a **High (negative)** impact, as all the social benefits resulting from the provision of services and additional townships would not be realized. This proposed project therefore supports the goals to be achieved in Vision 2030, as the bulk services will provide the community, with much better living conditions. Not only will this have a positive impact on their health, it will also result in the expansion and populating of the town of Okakarara.

WAY FORWARD

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





OKAKARARA TOWN COUNCIL

PRIVATE BAG 2104, OKAKARARA, NAMIBIA

TEL: 067 – 317084 / 317075,

FAX: 067 – 317202

E-mail: okakararatc@gmail.com

Vision: 'To become a sound vibrant, economically developed Municipality and be a model public institution'

Enquiries: Mrs. Helga Humbu

07th September 2021

Mr. M. Ndjiruete
KMN Properties Cc
P O Box 60641
Katutura
Windhoek
Namibia
Email: mexndjiruete@yahoo.com

SUBJECT: ALLOCATION OF 4 HA PORTION OF VIRGIN LAND IN OKAKARARA FOR HOUSING DEVELOPMENT

This communique serve to inform your esteem company that Council has allocated 4 hectare portion of virgin land at Extension 6- Okakarara Town Lands to KMN Properties Cc for the development of ultra-low and low cost houses at a cost of N\$ 25.00/m²

Size: 4 Ha = 40 000m²
Cost: N\$ 25.00/m²
Total Cost: N\$ 1 000 000.00

Deposit of 20% is payable upon acceptance of this offer equal to N\$ 200 000.00 whereas the remaining amount will be paid in 24 equal instalments

The amount due should be deposited in the following account No:

Account Name: Okakarara Town Council
Bank: First National Bank
Cheque Account No: 62253008596
Branch: Okakarara
Branch Code: 280-374

All correspondence should be addressed to the Chief Executive Officer

Please Fax the Deposit Slip to +264 67 317 202 or email to okakararac@gamil.com/ehrnstk@gmail.com to the attention of Mr. E. Katjiku, Chief Executive Officer.

Further communicate to the office of the Chief Executive Officer at the above-mentioned address of your acceptance of this offer in thirty (30) working days from the date of receive.

Failure to honor this commitment to commit to any above-mention shall force KMN Properties to forfeit their opportunity and the transaction shall be cancelled with immediate affect

Hope you find the above in order.

Regards,



Mr. Ernst Katjiku
Chief Executive Officer



All correspondence should be addressed to the Chief Executive Officer

ENVIRONMENTAL ASSESSMENT PRACTITIONER DECLARATION

I hereby declare that I do/will:

- a) Have knowledge of and experience in conducting assessments, including knowledge of the Environmental Management Act (Act 7 of 2007) and the Regulations and Guidelines that have relevance to the proposed activity;
- b) Perform the work relating to the application in an objective manner, even if these results in views and finding that is not favorable to the applicants;
- c) Comply with the abovementioned Act, its Regulations, Guidelines and other applicable laws.

I also declare that there is, to my knowledge, no information in my possession that reasonably has or may have the potential of influencing-

- I. any decision to be taken with respect to the application in terms of the Act and its Regulation; or
- II. the objectivity of this report, plan or document prepared in terms of the Act and its Regulations.

Mr. Tanaka D. Nyatoro



Environmental Assessment Practitioner



TABLE OF CONTENTS

ENVIRONMENTAL ASSESSMENT PRACTITIONER DECLARATION	3
1. INTRODUCTION	8
1.1 PROJECT BACKGROUND	8
1.2 PROJECT LOCATION.....	9
1.3 TERMS OF REFERENCE AND SCOPE OF PROJECT.....	11
1.4 ASSUMPTIONS AND LIMITATIONS	13
2 LEGAL FRAMEWORK	13
3 ENVIRONMENTAL BASELINE DESCRIPTION	17
3.1 SOCIAL ENVIRONMENT	17
3.1.1 Socio-Economic Context.....	17
3.1.2 Archaeological and Heritage Context	17
3.2 BIOPHYSICAL ENVIRONMENT	18
3.2.1 Air Quality	18
3.2.2 Climate	18
3.2.3 Topography, Hydrogeology and Geology	19
3.3 TERRESTRIAL ECOLOGY	19
3.4 SURROUNDING LAND USE.....	20
4 PROJECT DESCRIPTION	21
4.1 PROJECT COMPONENTS.....	21
4.1.1 Remainder of Okarara Town and Townlands No. 517 into Portion 14 and Remainder Description	21
4.1.2 Engineering Services	25
4.1.3 Access to the development	25
4.2 ALTERNATIVE.....	25
4.3 NO – GO ALTERNATIVE	25
5 PUBLIC PARTICIPATION PROCESS	26
5.1 ENVIRONMENTAL ASSESSMENT PHASE 2	26
6 ASSESSMENT METHODOLOGY	26
6.1 MITIGATION MEASURES.....	29
7 ASSESSMENT OF POTENTIAL ENVIRONMENTAL IMPACTS AND POSSIBLE MITIGATION AND MANAGEMENT MEASURES	30
7.1 CONSTRUCTION PHASE IMPACTS ON THE BIOPHYSICAL ENVIRONMENT	30



7.1.1	Fauna and Flora Impacts	30
7.1.2	Surface and Ground Water Impacts.....	30
7.1.3	Soil Impacts.....	30
7.2	CONSTRUCTION PHASE IMPACTS ON THE SOCIO-ECONOMIC ENVIRONMENT	31
7.2.1	Heritage Impacts	31
7.2.2	Health, Safety and Security Impacts.....	31
7.2.3	Traffic Impacts.....	31
7.2.4	Noise Impacts.....	31
7.2.5	Dust and Emission Impacts.....	31
7.2.6	Construction Site	32
7.2.7	Storage and Utilisation of Hazardous Substances.....	32
7.2.8	Environmental Management Plan	32
7.3	OPERATIONAL PHASE IMPACTS.....	32
7.3.1	Surface and Ground Water Impacts.....	32
7.3.2	Visual and Sense of Place Impacts.....	32
7.3.3	Traffic Impacts.....	32
7.3.4	Noise Impacts.....	32
7.3.5	Dust and Emission Impacts.....	33
7.3.6	Existing Services Infrastructure Impacts.....	33
7.3.7	Social Impacts	33
7.4	CUMULATIVE IMPACTS.....	33
7.5	SUMMARY OF POTENTIAL IMPACTS	33
8	CONCLUSION	37
8.1	CONSTRUCTION PHASE IMPACTS.....	37
8.2	OPERATIONAL PHASE.....	37
8.3	LEVEL OF CONFIDENCE IN ASSESSMENT	37
8.4	MITIGATION MEASURES.....	37
8.5	OPINION WITH RESPECT TO THE ENVIRONMENTAL AUTHORISATION	38
8.6	WAY FORWARD	38



9 REFERENCES 39

LIST OF FIGURES

Figure 1: Locality map of Okakarara 10

Figure 2: Locality Map of the Portion 517 Okakarara Town & Townlands 11

Figure 3: EIA flow diagram 16

**Figure 4: Average monthly temperatures for Okakarara
(<https://www.worldweatheronline.com/okakarara-weather-averages/otjozondjupa/na.aspx>) . 18**

**Figure 5: Average monthly Rainfall for Okakarara
(<https://www.worldweatheronline.com/okakarara-weather-averages/otjozondjupa/na.aspx>) . 19**

Figure 6: Pictures of the proposed site 20

**Figure 7: Subdivision map of Remainder of Okarara Town and Townlands No. 517 into Portion 14
and Remainder (PAC, 2022) 21**

LIST OF TABLES

Table 1: Contents of the Scoping Report 11

Table 2: Legislation applicable to the proposed development 13

Table 3: IMPORTANT SALIENT AND FACTS 24

Table 4: Property Details 25

Table 5: Table of Public Participation Activities 26

Table 6: Impact Assessment criteria 26

Table 7: Summary of the potential impacts of the proposed development 34

LIST OF ANNEXURES

Annexure A: Proof of Site Notices/Posters

Annexure B: Proof of Newspaper Advertisements

Annexure C: Photo Plates

Annexure D: Public Participation Process

1) BID

Annexure E: Curriculum Vitae of Environmental Assessment Practitioner

Annexure F: Environmental Management Plan

Annexure G: Layout Map of the Proposed Development



LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CRR	Comments and Response Report
DESR	Draft Environmental Scoping Report
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
EAR	Environmental Assessment Report
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
FEAR	Final Environmental Assessment Report
GTZ	Gesellschaft Für Technische Zusammenarbeit
HEEC CC	Healthy Earth Environmental Consultants CC
HIV	Human Immunodeficiency Virus
I&AP	Interested & Affected Party
MEFT	Ministry of Environment, Forestry and Tourism
MEFT: DEA	Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs
PPP	Public Participation Process
OTC	Okakarara Town Council
USAID	United States Agency for International Development



1. INTRODUCTION

1.1 PROJECT BACKGROUND

The status of Okakarara as a preferred tourist destination in the Otjozondjupa Region because of its proximity to the Waterberg National Park and a lot of historically interesting areas has been beneficial to the residents, as it brought with it an influx of the decentralized government ministries and their officials subsequently increasing the demand for land and housing. The Okakarara Town Council has responded positively to this demand by availing land, which in turn attracted developers and financial institutions to the town.

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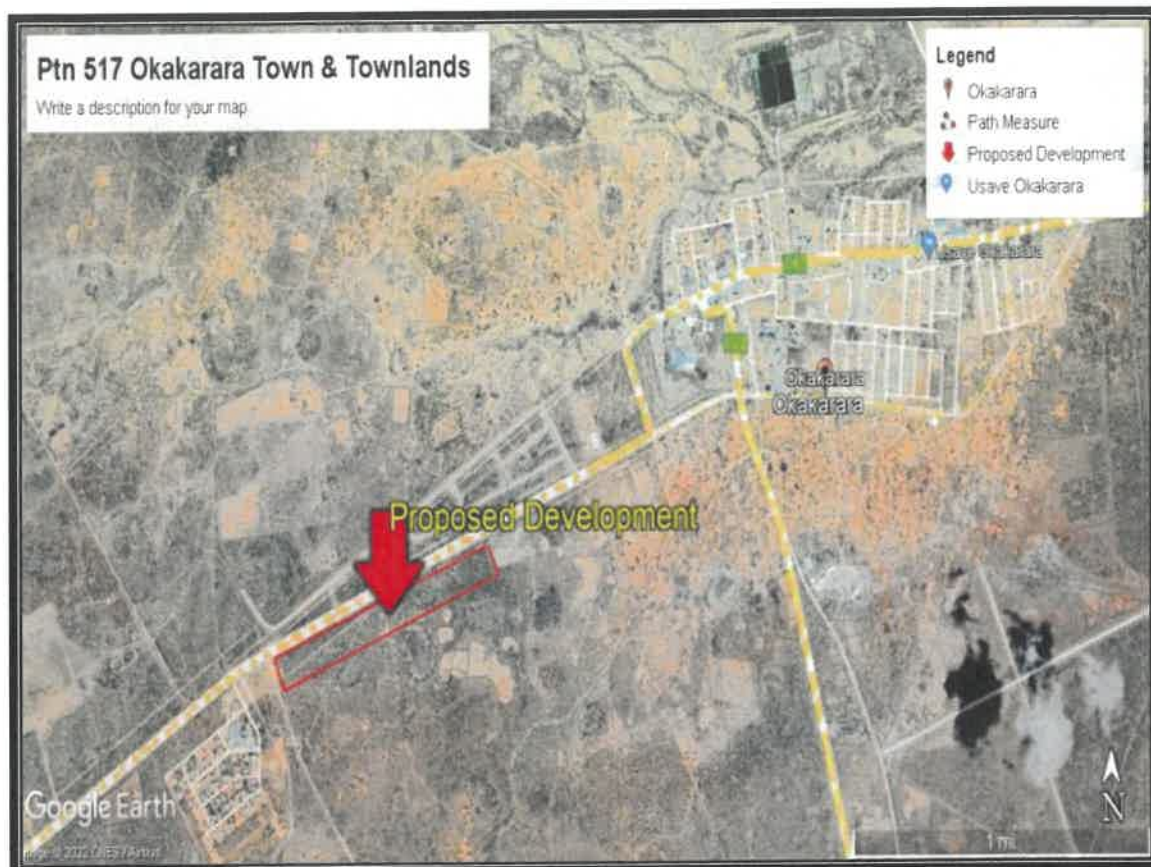


Figure 2: Locality Map of the Portion 517 Okakarara Town & Townlands

1.3 TERMS OF REFERENCE AND SCOPE OF PROJECT

The scope of this project is limited to obtaining an Environmental Clearance Certificate for the Subdivision of the Remainder of Okarara Town and Townlands No. 517 into Portion 14 And Remainder on a 4 Ha Virgin Land Parcel for the development of ultra-low- and low-cost housing in the Otjozondjupa Region, Namibia. The proposed project activity will be described in more detail in Chapter 4. The Final Environmental Scoping Report (FESR) comprises of the following information as listed in **Table 1** below:

Table 1: Contents of the Scoping Report

Section	Description	Section of FEAR/ 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



Section	Description	Section of FEAR/ Annexure
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
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 D
	(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 D
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 construction,	Refer to Chapter 7



Section	Description	Section of FEAR/ Annexure
	erection or decommissioning associated with the undertaking of the proposed listed activity;	
8 (i)	terms of reference for the detailed assessment;	N/A – Assessment of impacts are included in this EA Report
8 (j)	An Environmental Management Plan (EMP)	Refer to Annexure F

1.4 ASSUMPTIONS AND LIMITATIONS

In undertaking this investigation and compiling the FESR, the following assumptions and limitations apply:

- Assumes the information provided by the proponent is accurate and discloses all information available to KMN Properties and Investment CC.
- It is assumed that information obtained from the Town Planners; Plan Africa Consultants CC is accurate.
- An engineering company is yet to be appointed by KMN Properties and Investment CC to design and install the engineering services of the proposed development.

2 LEGAL FRAMEWORK

Much of the legislation outlined below has applicability from a biophysical, social and visual perspective. While certain relevance is highlighted, such documents are applicable on a variety of levels.

Table 2: 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.	Activity 10.1 (a) The construction of oil, water, gas and petrochemical and other bulk supply pipelines.



LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	GN 30 provides the regulations governing the environmental assessment (EA) process.	Activity 10.1 (b) The construction of public roads. Activity 10.2 (a) The route determination of roads and design of associated physical infrastructure where it is a public road.
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.
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, Forestry and Tourism (MEFT) Policy on HIV & AIDS	MEFT has 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 have to 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 construction workers interact with local communities.
Town Planning Ordinance 1954	The Town Planning Ordinance makes provision for town planning schemes to be compiled for all local authorities in Namibia.	The Town Planning Scheme Okakarara Town Council has the aim to control and regulate land uses within the town so as to minimise the impact of contradicting land uses.
Township and Division of Land Ordinance 11 of 1963	The Townships and Division of Land Ordinance regulates subdivisions of portions of land falling within a Local Authority area	In terms of Section 19 such applications is to be submitted to the Townships Board
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. Sections 34-47 makes provision for the aspects of water and sewerage	The development has to be comply to 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.



LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
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 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).	Contractors and users of the proposed development are to comply with these legal requirements.
Nature Conservation Ordinance no 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants have to be managed within the legal confines.

This EIA process will be undertaken in accordance with the EIA Regulations. A Flow Diagram (refer to **Figure 3** below) provides an outline of the EIA process to be followed.



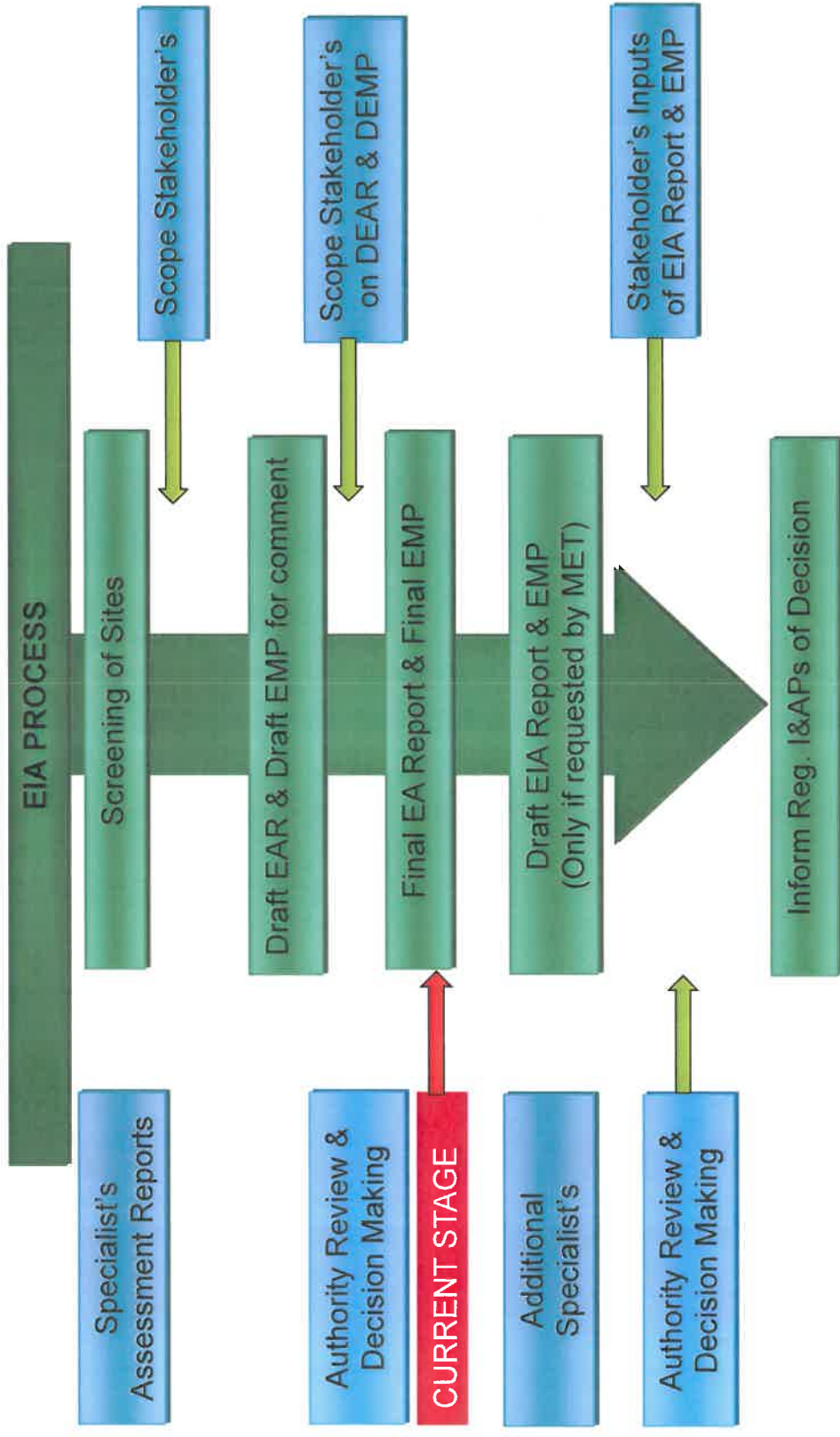


Figure 3: EIA flow diagram



3 ENVIRONMENTAL BASELINE DESCRIPTION

3.1 SOCIAL ENVIRONMENT

3.1.1 Socio-Economic Context

According to the 2011 Census, the total population enumerated in Otjozondjupa Region is estimated at 143,903. Of these, 70,001 are females and 73,902 are males. Approximately 54% of the total population is located in urban parts and 46% in rural parts of the region. The total population of Okakarara to be specific is 4,709. (NPC, 2011).

In the Otjozondjupa Region the population under 5 years of age is 14%. The population ranging from the age of 5 to 14 years of age comprise 22% of the region's population. The working age population, 15 to 59 years, makes up 63% of the whole population in the region. A relatively low percentage, 6% of the population, was above 60 years of age. For every 100 females in the Otjozondjupa Region there are 106 males.

In the Otjozondjupa Region the literacy rate of the age group 15 years and up, is 83%. Of the children aged 7 to 13 years, 83.5% are girls and 49.2% are boys. 20% of all people above the age of 15 have never attended school, 11% are currently attending school and 66% left school at the time, in the Otjozondjupa Region.

The main languages spoken at home in Otjozondjupa Region are Otjiherero languages at 27%, Oshiwambo languages at 21%, and Nama/Damara at 21% as compared to the Khomas Region where 41% communicates in Oshiwambo languages, 19% in Afrikaans, 12% in Nama/Damara and 10% in Otjiherero. Approximately 72% of the population aged 15 years and up belong to the labour force (i.e. economically active) in the Otjozondjupa Region. 63% of the population is employed while 37% are unemployed. The inactive group, which consists of homemakers, 16%, students 46% and the severely disabled, retired or old age income recipients 29% makes up of the regions' population.

The main source of income in this region is from wages and salaries at 60%, Business and non-farming activities at 10% and farming at 10%. Cash remittance makes up 6% respectively. The older age group makes up 10% of the regions income (NPC, 2011).

3.1.2 Archaeological and Heritage Context

The Otjozondjupa Region like the rest of Namibia is home to many different cultural groups. Okakarara is a preferred tourism destination. Travellers and tourist often stop over at Okakarara for refreshments, supplies and to rest. Apart from its historic sites and lush green peaceful atmosphere the region also boasts with some world renowned tourist attractions. The following heritage places are found within the Otjozondjupa region:

- The Hoba Meteorite located on farm Hoba which is 19 km from Grootfontein
- The Das Alte Fort Museum situated in prominent position atop a hill in Grootfontein



- The Baobab Tree, romantically called 'Tree 1063', is located on the Farm Keibeb, which is about 60km north of Grootfontein on the "Maanlig" road, (Road number 2848).
- The Gaub Cave which is located on the historical farm Ghaub.

No known heritage sites are however located within the proposed development area. If any heritage or cultural significant artefacts are found during the construction of the proposed township establishment, construction must stop, and the National Heritage Council of Namibia should be immediately notified.

3.2 BIOPHYSICAL ENVIRONMENT

3.2.1 Air Quality

Air quality in Okakarara is characterised to be comparatively good. With any construction activity will result the creation of fugitive dust which may both be a nuisance and a health risk. Dust may be generated by a variety of activities on site, but taking the already high background dust levels into consideration, the increase resulting from this activity will be negligible under normal circumstances or when considered in combination with other activities.

3.2.2 Climate

Okakarara has a humid subtropical climate with hot summers and relatively mild winters (with warm days and chilly to cool nights). It borders on a semi-arid climate. The average maximum temperature varies between 20°C and 35°C with the average minimum temperature between 8 and 20°C. See **Figure 4** for temperature data from weather stations in the vicinity of Okakarara. See **Figure 5** for average rainfall data for the area.

Max, Min and Average Temperature

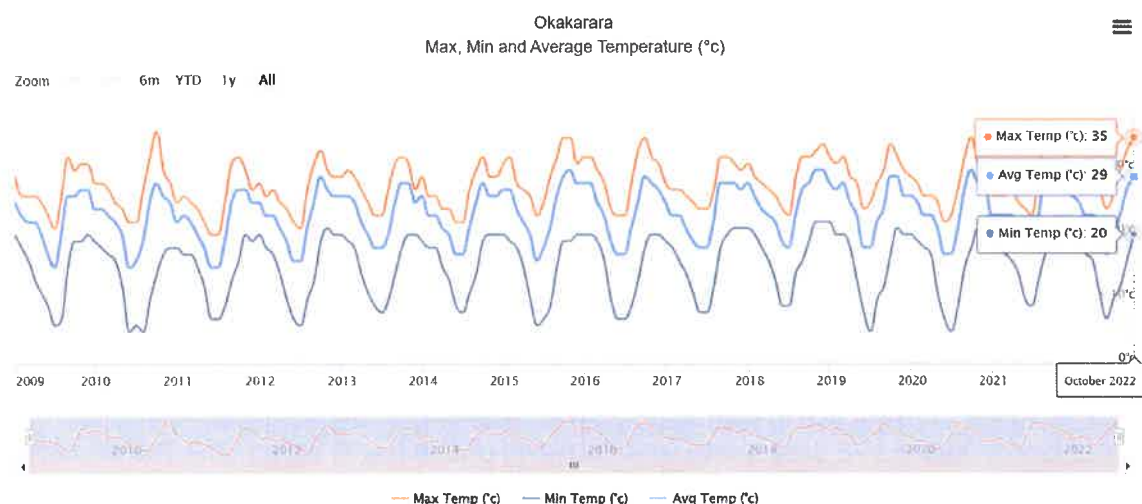


Figure 4: Average monthly temperatures for Okakarara (<https://www.worldweatheronline.com/okakarara-weather-averages/otjozondjupa/na.aspx>)



Rainfall and Rain Days

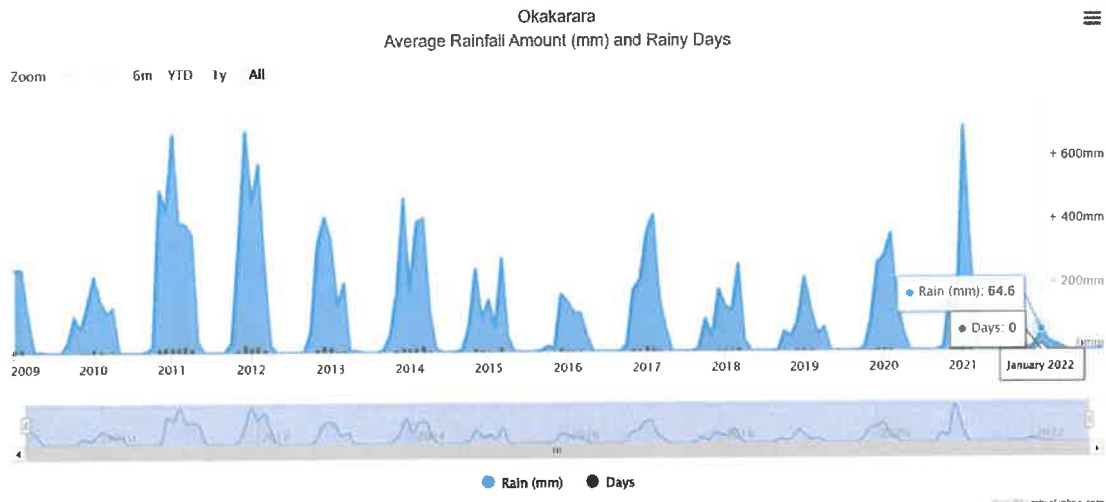


Figure 5: Average monthly Rainfall for Okakarara (<https://www.worldweatheronline.com/okakarara-weather-averages/otjozondjupa/na.aspx>)

3.2.3 Topography, Hydrogeology and Geology

The topography of the Otjozondjupa Region is noticeably flat. The Otjozondjupa Region lies on the western edge of a vast basin of sand, and it is this sand that determines much about the vegetation, wildlife, farming and mineral potential of the region. Groundwater is generally available throughout the Region, and the quality of water is also generally good. Higher yielding aquifers are present in several areas: around Grootfontein, Leonardville, Hochfeld and in the Eiseb (Mendelson, 2006). Potable water for Okakarara is supplied by Namwater. The development site is not susceptible to flooding and a good drainage system must be designed and installed to ensure that the roads and ervens direct rain water to the reticulation system of the town.

3.3 TERRESTRIAL ECOLOGY

The eastern two-thirds of the Otjozondjupa Region are dominated by savannas characteristic of Kalahari Sands, with more broad-leaf deciduous trees in the north and more thorny species in the south. The western parts are covered in thorny species growing on more rocky, shallow soils. These areas are the most degraded in the country as a result of bush encroachment. This problem is largely and directly due to a lack of fires in these areas used for livestock farming; farmers prevent fires and there is little grass to burn anyway because of heavy grazing (Mendelson, 2006).

Grootfontein and Tsumeb falls within the arid Savanna Biome and the vegetation of the region can broadly be classified as Mountain Savanna or, more recently, Dolomite Karstveld (Burke et al, 2002). Due to the comparatively high rainfall and unique dolomite lithology of the area, it is recognised as a centre of plant species diversity in Namibia (Maggs et al, 1998).



The vegetation in the Grootfontein-Tsumeb-Otavi area specifically has largely been disturbed as a result of mining operations and urbanisation, the typical vegetation of the dolomite karstveld has largely been replaced by ornamentals within the towns. The vegetation on the hills is typical of that found in the Otavi Mountains and is dominated by species such as *Terminalia pruinoides* (Purple Pod Terminalia), *Croton gratissimus* (Lavender Croton) and *Sclerocarya birrea* (Marula),

The project area is currently free of any developments. The surrounding land uses are mostly residential and Townlands which are often zoned as "Undetermined". Undetermined refers to land which is reserved for future development. **See Figure 6** below for a general view of the site.



Figure 6: Pictures of the proposed site

In terms of the natural environment, the project area is currently vacant. The site in question will be cleared to allow for the development of the new township establishment and as a result there are no current issues reflecting environmental matters to be considered as indicated in Figure 6 above. The site area is relatively flat with a slope interval of less than approximately 1:100 and classified relatively of sandy soils. The project area is not subject to severe flooding during the rainy season.

3.4 SURROUNDING LAND USE

The portion of land in question is currently vacant. The portion of land in question is presently covered with bushes. The surrounding land use in close proximity is characterized by residential properties, business and institutional. In time the area will become more developed, and the feel of a proper township will be established as is the case for the surrounding land uses.



4 PROJECT DESCRIPTION

4.1 PROJECT COMPONENTS

The proposed project involves the subdivision of the Remainder of Okakarara Town and Townlands No. 517 into Portion 14 and Remainder on a 4 Ha Virgin Land Parcel for the development of ultra-low- and low-cost housing in the Otjozondjupa Region, Namibia. Okakarara Town Council had reserved the portion of land in question for “Residential” purposes as evidenced by the few housing structures in the vicinity. While some new township establishments have taken place in Okakarara, most extensions were focused on formalizing the existing homesteads hence the limited vacant new properties in Okakarara.

4.1.1 Remainder of Okakarara Town and Townlands No. 517 into Portion 14 and Remainder Description

The project has the aim to:

- Provide affordable serviced Erven,
- Contribute to the diversification of the local economy of Okakarara Town

4.1.1.1 SITE DETAILS

Comprising of the following erven namely, Single Residential, 90 (40,805m²), General Business, 2 (2,366m²), Public Open Spaces (10,873m²) and a Road Reserve (20,294m²). Individual Single Residential erven varying between 457m² - 521m²

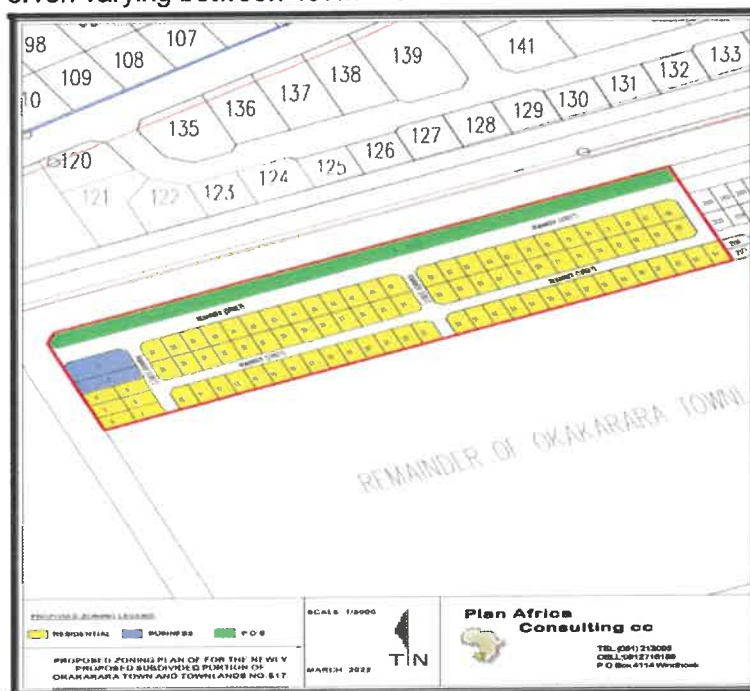
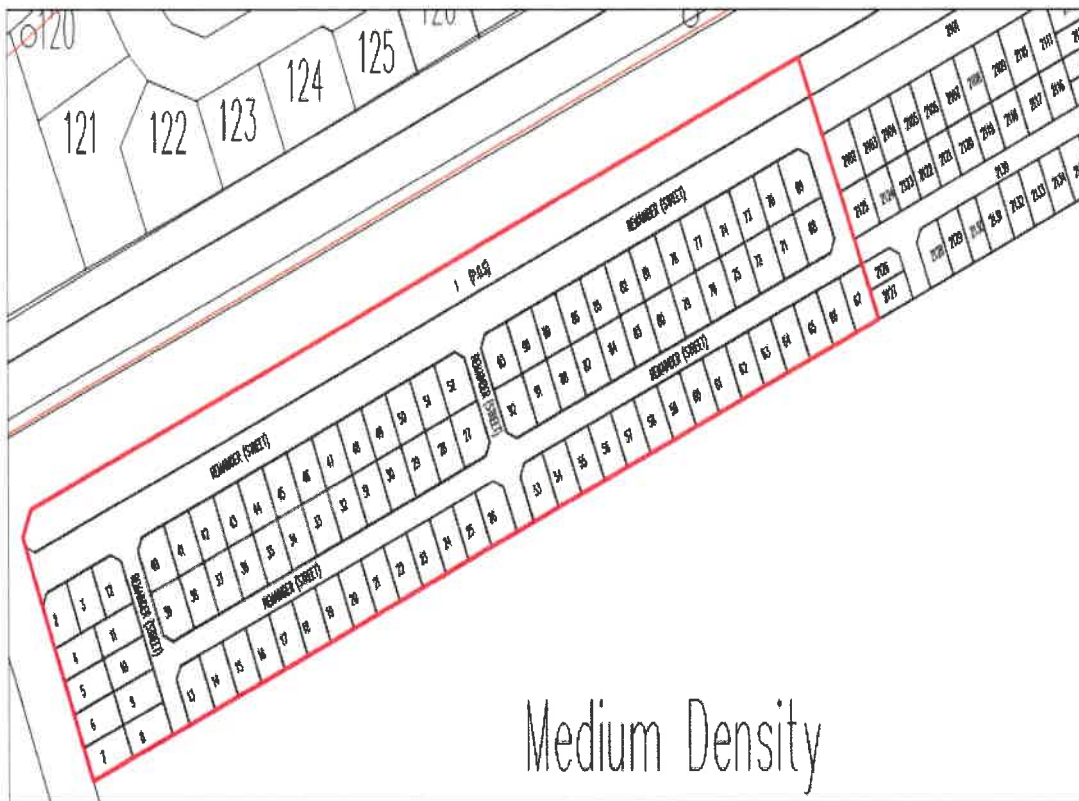




Figure 7: Subdivision map of Remainder of Okakarara Town and Townlands No. 517 into Portion 14 and Remainder (PAC, 2022)





<p>PROPOSED SUBDIVISION OF OKAKARARA MEDIUM RESIDENTIAL AREA INTO 11 PORTIONS AND MORE AND THE REMAINDER</p>	<p>Subdivision Information</p> <p>Total Portion Area= 74337m² = 7.4 ha Total Res Designed Area= 43169m² = 4.3 ha Total P.O.S Area = 10873m² = 1.0 ha Portion Remainder (Streets) = 20286m² = 2.0 ha</p> <p>Total number of Erves = 93 Sizes = 2462m² - 2521m² in extent</p>	<p>SCALE: 1:2500</p>  <p>TIN</p> <p>MARCH, 2022</p>	<p>Plan Africa Consulting cc</p>  <p>TEL:061 212086 CELL:0812716189 P.O.Box 4114 Windhoek</p>
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Erf list for the Proposed Township Establishment on a Portion of Okakarara Town and Townlands No.517					
Erf No.	Land Use	Erf Size (m ²)	Erf No.	Land Use	Erf Size (m ²)
1	P.O.S	10873	46	Residential	464
2	Business	1431	47	Residential	464
3	Business	935	48	Residential	465
4	Residential	469	49	Residential	519
5	Residential	469	50	Residential	487
6	Residential	468	51	Residential	457
7	Residential	468	52	Residential	457
8	Residential	470	53	Residential	457
9	Residential	470	54	Residential	457
10	Residential	480	55	Residential	457
11	Residential	461	56	Residential	457
12	Residential	461	57	Residential	458
13	Residential	461	58	Residential	458
14	Residential	461	59	Residential	458
15	Residential	461	60	Residential	458
16	Residential	461	61	Residential	458
17	Residential	462	62	Residential	458
18	Residential	461	63	Residential	458
19	Residential	462	64	Residential	458
20	Residential	462	65	Residential	514
21	Residential	462	66	Residential	521
22	Residential	462	67	Residential	467
23	Residential	492	68	Residential	461
24	Residential	513	69	Residential	461
25	Residential	459	70	Residential	466
26	Residential	459	71	Residential	466
27	Residential	459	72	Residential	461
28	Residential	459	73	Residential	462
29	Residential	475	74	Residential	465
30	Residential	475	75	Residential	478
31	Residential	459	76	Residential	478
32	Residential	458	77	Residential	478
33	Residential	458	78	Residential	478
34	Residential	457	79	Residential	461
35	Residential	458	80	Residential	462
36	Residential	511	81	Residential	462
37	Residential	517	82	Residential	464
38	Residential	463	83	Residential	463
39	Residential	463	84	Residential	462
40	Residential	463	85	Residential	462
41	Residential	464	86	Residential	463
42	Residential	464	87	Residential	463
43	Residential	477	88	Residential	462
44	Residential	477	89	Residential	516
45	Residential	464	90	Residential	516

Utility Table for a Portion of Okakarara Town and Townlands No.517				
Erf No.	Land Use	No. of Erven	Erf Size (m ²)	%
4 - 90	Residential	87	40 805	55
2 & 3	Business	2	2 366	3
1	P.O.S	1	10 873	15
	Streets		20 294	27
Total		90	74 338	100



Table 3: IMPORTANT SALIENT AND FACTS

DESCRIPTION OF IMPROVEMENTS	
A vacant single residential allotment being a subdivision of OKAKARARA TOWN & TOWNLANDS NO. 517, situated in the town of OKAKARARA that will be subdivided into 90 Freehold Allotments.	
DESCRIPTION OF PROPERTY – ERF SIZES	
Single Residential	40,805 m ²
General Business	2,366 m ²
Public Open Spaces	10,873 m ²
Road Reserves	20,294 m ²
Total (Including Road Reserve)	74,338 m ²
SUMMARY OF IMPROVEMENTS	
Tenure	Freehold

A) AMENITIES

All applicable amenities such as schools, places of worship, etc. are available in close proximity.

B) TOPOGRAPHY

Nearly level in contour average sized allotments.

C) SERVICE INSTALLATIONS

Area to be fully serviced by the Developer with water, electricity, storm water drainage and refuses removal and will be characterized by gravel roads.

D) NEIGHBOURHOOD AND ZONING

Will be a new developing middle to high end area that will comprise of various zoned areas as per the description in the Important Salient and Facts. Neighbourhood can be classified as a middle to an above middle-income area.



4.1.1.2 PROPERTY DETAILS

Table 4: Property Details

Deeds Registry	Windhoek			
Region	Otjozondjupa			
Registration Division	"D"			
Local Authority	Okakarara Town Council			
Title Deed Number:	Tbc			
Registered Owner:	Unknown			
Purchase Price:	Unknown			
Registration Date:	Tbc			
Property Description	A Portion of Okakarara Town & Townlands No. 517			
Extent	74,338	m ²	7.4338	Hectares
Servitudes	Standard as per title deed			
Zoning	Single Residential			

4.1.2 Engineering Services

The subdivided Remainder of Okarara Town and Townlands No. 517 into Portion 14 and Remainder will be connected to the services network of the town of Okakarara. The internal street design, road construction, sewage, water, streetlights and electricity services of the development will be undertaken by the developer as per the Council agreement with the developer.

4.1.3 Access to the development

Access to the development can be obtained from the C22 Main Road which can be described as one of the major arterial roads in the town of Okakarara that allows for easy access to the CBD area and various other suburbs within the town of Okakarara.

4.2 Alternative

The Okakarara town Council considered two options upon the development proposal by the proponent, the one was to subdivide the townlands into a portion that will be offered to the developer, and the other was to rezone another already existing land parcel to the proposed land use. The remainder was already ear-marked for low-cost housing development hence making it the preferred option; additionally, it would mean that a similar size of land has been saved from anthropogenic interference.

4.3 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 residents of Okakarara will continue to have limited affordable residential developments and no added growth within the town. In addition, if the residential developments do not commence there will continue to be a demand for housing in Okakarara. With no development, there will be no added associated economic investment in the town and no potential regeneration. Furthermore no construction or operational jobs will be created.



5 PUBLIC PARTICIPATION PROCESS

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

Table 5: Table of Public Participation Activities

ACTIVITY	REMARKS
Placement of site notices/posters in Okakarara	See Annexure A
Placing advertisements in two newspapers namely the Confidante and The Windhoek Observer	See Annexure B
Written correspondence to any registered Interested and Affected Parties via Email	See Annexure D

5.1 ENVIRONMENTAL ASSESSMENT PHASE 2

The second phase of the PPP involved the lodging of the FESR to the public for comment via the online MEFT: DEA eia portal for 21 days. I&APs had until **11th February 2022** to submit comments or raise any issues or concerns they may have regarding the proposed project. No comments or concerns were raised during this period.

6 ASSESSMENT METHODOLOGY

This chapter describes 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, 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



CRITERIA	CATEGORY
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
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 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 <u>actually</u> 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



CRITERIA	CATEGORY
	<p>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.</p> <p>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.</p>

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 KMN Properties and Investment CC as the proponent, and the 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 **Figure 8** below). 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:



Figure 8: Mitigation Hierarchy

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 minimisation: 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.

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 ENVIRONMENTAL IMPACTS AND POSSIBLE MITIGATION AND MANAGEMENT MEASURES

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 proposed site to be submitted to MEFT: DEA for consideration. In turn, MEFT: DEA's decision on the environmental acceptability of the proposed project and the setting of conditions of authorization (should the project be authorized) will be informed by this chapter, amongst other information contained in this EA Report.

7.1 CONSTRUCTION PHASE IMPACTS ON THE BIOPHYSICAL ENVIRONMENT

Biodiversity which refers to the uncounted variety of living things on earth, play an essential role in providing breathable air, conserving soils and stabilizing climates. Its significance to human society cannot be overstated; hence the effective use of biodiversity at all levels, such as genes, species etc is regarded as a precondition for sustainable development (UNEP, 2010). It is therefore imperative that with the growth of the property industry in Namibia, impacts on biodiversity are avoided and minimised through responsible project development.

7.1.1 Fauna and Flora Impacts

The proposed site on which the development will take place can be described as relatively flat and with a low level of vegetation growth. The area is covered for the most part with grass, *Acacia* species and Makalani palms (*Hyphaene petersiana*) are the dominant tree species on the proposed site although spread sporadically. None of these plants are protected or listed in the Namibian Red list. No large animals are found on the site; however there may be smaller vertebrae fauna associated with the site.

7.1.2 Surface and Ground Water Impacts

With regards to the proposed site, there are currently no visible surface water bodies to be considered. However, surface water impacts can be encountered during the construction phase if development takes place within the rainy season. The risk of contaminating such surface water can be increased by accidental spillage of oils and fuels and any other equipment used during construction.

7.1.3 Soil 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 and the site is cleared of all vegetation to allow for the development as there will be no shrubs or trees to hold the soil together.



7.2 CONSTRUCTION PHASE IMPACTS ON THE SOCIO-ECONOMIC ENVIRONMENT

7.2.1 Heritage Impacts

No major historical activity is known to have taken place in proximity to the site. Section 3.1.2 provides an overview of the archaeological and heritage context of Okakarara and the Otjozondjupa Region.

7.2.2 Health, Safety and Security Impacts

Due to a high demand of local construction workers during the construction of the proposed project, there may be an inflow of temporary construction workforce in the town of Okakarara. Experience with other construction projects in a developing-world context has shown that, where construction workers have the opportunity to interact with local community, a significant risk is created for the development of social conditions and sexual behaviors that contribute to the spread of HIV and AIDS.

In response to the threat the pandemic poses, MEFT developed a policy on HIV and AIDS. This policy, which was developed with support from USAID, GTZ and the German Development Fund, provides for a non-discriminatory work environment and for workplace programs managed by a Ministry-wide committee. The MEFT has also recently initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.

7.2.3 Traffic Impacts

Traffic is expected to increase during the construction phase of the project. Due to the nature of the project a number of trucks will be required to deliver, handle and position construction materials. Not only will the increase in traffic result in associated noise impacts, it will also impact on the roads in the area.

7.2.4 Noise Impacts

The construction of the services will result in associated noise impacts. These noise impacts will mainly be during the construction phase and would be associated with construction machinery and noise from construction vehicles. The impact will be more limited to the short-term construction phase.

7.2.5 Dust and Emission Impacts

The movement of vehicles, excavation, stockpiles and spoils during the construction phase could result in dust and emission impacts, if not managed correctly. An increase in traffic will also result in more dust and emission. Dust could impact negatively on the health of the nearby community and workers. Dust and emission impacts are primarily associated with the construction phase.



7.2.6 Construction Site

The construction phase will result in additional people on-site, who will require access to various services such as potable water for domestic and construction purposes, temporary toilets during the construction phase, and solid waste management for domestic and construction waste.

7.2.7 Storage and Utilisation of Hazardous Substances

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 impact on the surrounding environment, if these substances spill and enter the environment.

7.2.8 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.

7.3 OPERATIONAL PHASE IMPACTS

During the operational phase a large area of land will change to make way for the residential developments.

7.3.1 Surface and Ground Water Impacts

There are currently no visible surface water bodies to be considered with regard to the proposed site as there are no perennial water sources in the area. However, during rain events water accumulates in the *iishanas*.

7.3.2 Visual and Sense of Place Impacts

The proposed site which is intended for the development is currently vacant and undeveloped and will now be developed with residential dwellings. Individuals who frequent the area on a regular or infrequent basis will experience a change in their sense of place of the area. The extent of this disturbance will depend on how highly they valued the initial aesthetic quality of the site.

7.3.3 Traffic Impacts

During the operational phase it is expected that there will be an increase in vehicle traffic. This will have a potential impact on the traffic movement in the area and on the internal roads. This will mainly be the vehicles used for private use by the residents of the area.

7.3.4 Noise Impacts

The operation of various types of activities within the development area will result in associated noise impacts. Operational noises associated with the proposed development are currently unknown, but are expected to be within normal township noise levels.



7.3.5 Dust and Emission Impacts

The air quality in the area is considered to be fairly good. This is based on the fact that not many commercial activities that generate dust or emissions are taking place. The operation of various types of activities within the development area will result in associated dust and emission impacts, if not managed correctly. Dust and emissions associated with the proposed new townships development will mostly be generated by vehicle movement.

7.3.6 Existing Services Infrastructure Impacts

The proposed developments will make use of added infrastructure specifically regarding electricity and water. Once the houses have been developed, it will be incumbent on each new property owner to apply for the appropriate services such as electricity and water, and the required demand for their specific activity. It is important to note that the country in general is constrained and faced with a crisis in terms of water and electricity availability; and an increased demand for these amenities will further add to the predicament. The additional demand is expected to be fairly Medium-Low.

7.3.7 Social Impacts

The development is expected to provide the residents of Okakarara with proper affordable housing, and the related services. This will enhance the quality of life of the residents and help in attracting more investors and in turn uplift the general economy of the town.

7.4 CUMULATIVE IMPACTS

The cumulative impact of the proposed developments in regards to the degradation of the fairly-disturbed project area of which the exact type of residential structures are not yet known are 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 development..

7.5 SUMMARY OF POTENTIAL IMPACTS

A summary of all the potential impacts from the proposed project assessed above is included in **Table 7** 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 potential impacts of the proposed development

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
CONSTRUCTION PHASE										
Biophysical (Flora)	Portion 14 & Remainder	No mitigation	Local	Medium-Low	Short term	Medium-Low	Probable	Certain	Reversible	Medium-Low (-ve)
	No go	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
Biophysical (Fauna)	Portion 14 & Remainder	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	No go	Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
Surface and Ground Water	Portion 14 & Remainder	No mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	Mitigation	Local	Very low	Short term	Very low	Probable	Certain	Reversible	Very low (-ve)
Soil	Portion 14 & Remainder	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	No go	Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
Heritage	Portion 14 & Remainder	No mitigation	Local	Medium	Short term	Medium	Probable	Certain	Reversible	Medium (-ve)
	No go	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
Health, Safety and Security	Portion 14 & Remainder	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	No go	Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
Traffic Impacts	Portion 14 & Remainder	No mitigation	Local	Very low	Short term	Very low	Probable	Certain	Reversible	Very low (-ve)
	No go	Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
Noise Impacts	Portion 14 & Remainder	No mitigation	Local	Medium	Short term	Medium-Low	Probable	Certain	Reversible	Medium-Low (-ve)
	No go	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
Dust and Emission Impacts	Portion 14 & Remainder	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	Neutral	Probable	Certain	Reversible
OPERATIONAL PHASE										
Surface and Ground Water	Portion 14 & Remainder	No mitigation	Local	Medium	Medium term	Medium	Probable	Certain	Reversible	Medium (-ve)
	No go	Mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
		No mitigation	Local	Neutral	Medium term	Medium term	Neutral	Probable	Certain	Reversible
Land Use	Portion 14 & Remainder	Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
	No go	No mitigation	Local	Medium	Medium term	Medium	Probable	Certain	Reversible	Medium (-ve)
		Mitigation	Local	Low	Medium term	Medium term	Low	Probable	Certain	Reversible
Visual & Sense of Place	Portion 14 & Remainder	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
	No go	Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		No mitigation	Local	Medium-Low	Medium term	Medium term	Medium-Low	Probable	Certain	Reversible
Traffic Impacts	Portion 14 & Remainder	Mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Very Low	Medium term	Very Low	Probable	Certain	Reversible	Very Low (-ve)
		Mitigation	Local	Neutral	Medium term	Medium term	Neutral	Probable	Certain	Reversible
Noise Impacts	Portion 14 & Remainder	No mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	Mitigation	Local	Very Low	Medium term	Very Low	Probable	Certain	Reversible	Very Low (-ve)
		No mitigation	Local	Neutral	Medium term	Medium term	Neutral	Probable	Certain	Reversible
Dust & Emissions	Portion 14 & Remainder	Mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Very Low	Medium term	Medium term	Very Low	Probable	Certain	Reversible
Existing Services	Portion 14 & Remainder	No mitigation	Local	Low	Medium term	Medium - Low	Probable	Certain	Reversible	Medium-Low (-ve)
	No go	Mitigation	Local	Very Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
		No mitigation	Local	Neutral	Medium term	Medium term	Neutral	Probable	Certain	Reversible
Social impact	Portion 14 & Remainder	Mitigation	Local	High	Long term	High (+)	Probable	Certain	Reversible	High (+)
	No go	No mitigation	Local	High	Long term	High (+)	Probable	Certain	Reversible	High (+)
		Mitigation	Local	High	Long term	Long term	High (+)	Probable	Certain	Reversible



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



8 CONCLUSION

8.1 CONSTRUCTION PHASE IMPACTS

With reference to **Table 7**, 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 the EMP (**Annexure F**), the significance of the construction phase impacts is likely to be reduced to a **Low (negative)**.

8.2 OPERATIONAL PHASE

The most significant impact **high (positive)** is the social impact directly associated with the provision of residential properties and related services. This will enhance the quality of life of the residents and help in attracting more investors and in turn uplift the general economy of the town. It is envisaged that the provision of the new development and the construction of roads and bulk services in Okakarara will underpin the growth and expansion of the town and create a more sustainable livelihood for the community socially and economically.

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: DEA to be able to determine the environmental acceptability of the proposed project.

It is acknowledged that the project details (especially in regards to service infrastructure) 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 FESR 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 the EMP (**Annexure F**), the significance of the construction and operational phase impacts is likely to be reduced to a **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: DEA could be enforced as Conditions of Approval in the Environmental Authorisation, should MEFT: DEA issue a positive Environmental Authorisation.

It is strongly advised that KMN Properties and Investment CC appoint a properly qualified consulting engineer to design and supervise the construction of the bulk infrastructure services, including the storm water infrastructure.

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 is 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, as the provision of the additional residential properties and the related municipal services is highly important for the community to enhance their livelihoods, which in turn will also uplift the general economy of the town, it will also result in the expansion and population of the Okakarara town. The significance of the social impact was therefore deemed to be **High (positive)**.

The “no go” alternative on the other hand was deemed to have a **High (negative)** impact, as all the social benefits resulting from the provision of services and additional residential erven would not be realised.

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

8.6 WAY FORWARD

The Final Scoping Report will now be submitted to MEFT: DEA for consideration and decision making. If MEFT: DEA approves or requests additional information / studies all registered I&APs and stakeholders will be kept informed of progress throughout the assessment process.



9 REFERENCES

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