

Environmental Assessment Scoping Report for

October 2025

*Proposed Township
Establishment and Layout
approval of Rose Valley and
Rose Valley Extension 1,
Gobabis, Omaheke Region*

APP-006545

Prepared for: Shack Dwellers Federation of
Namibia

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PROJECT DETAILS

Title	Environmental Scoping Report for the: ▪ Proposed Township Establishment and Layout approval of Rose Valley and Rose Valley Extension 1, Gobabis, Omaheke Region		
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EXECUTIVE SUMMARY

Introduction

The Shack Dwellers Federation of Namibia hereinafter referred to as the proponent intends to undertake the following activities:

- **Subdivision of the Farm Gobabis Townlands No. 114 into Portion A, B and the Remainder;**
- **Layout approval and township establishment on Portion A of the Farm Gobabis Townlands No. 114 to become known as Rose Valley;**
- **Layout approval and township establishment on Portion B of the Farm Gobabis Townlands No. 114 to become known as Rose Valley Extension 1.**

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) which may not be undertaken without an Environmental Clearance Certificate (ECC).

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 (MEFT: DEA).

Project Description

The Shack Dwellers Federation of Namibia (SDFN), supported by the Namibia Housing Action Group (NHAG), is a community network that helps low-income Namibians access land, housing, and services. The Gobabis Municipal Council has allocated 5 hectares of land in Rose Valley Extension 1 to SDFN and NHAG for the development of low-income housing.

The project will establish a formal township, creating residential erven for SDFN members who are typically excluded from the formal housing market. By providing secure tenure and affordable land, the initiative promotes social inclusion, dignity, and long-term stability, while enabling residents to invest in their homes and communities.

For the municipality, the township creates rateable properties, generating revenue for reinvestment into public services and infrastructure.

This collaboration advances affordable housing, sustainable urban development, and improved living conditions for low-income households in Gobabis.

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 **25 July 2025**;
- Notices were placed in The New Era Newspaper dated **29 July 2025** and **05 August 2025** and The Namibian newspapers dated **30 July 2025** and **06 August 2025**, briefly explaining the activity and its locality, inviting members of the public to register as I&APs (**Appendix B**);
- Notices were fixed at the project site (see **Appendix A**); and
- A public meeting was held on **12 August 2025** in Gobabis (see **Appendix C**).

Public consultation was carried out according to the Environmental Management Act's EIA Regulations. After the initial notification, I&APs were given two weeks to submit their comments on the project (until **03 September 2025**).

The Draft Scoping Report was circulated from the **26 September 2025** until **10 October 2025** so that the public could review and comment on it. The comment period remained open until the final scoping report was submitted to MEFT.

Conclusions and Recommendations

None of the negative construction phase impacts were deemed to have a high significance 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)**.

The most significant **Medium (positive)** impact is the social impact directly associated with the intended development of the townships which aims to offer residential opportunities for the residents in Gobabis.

It is recommended that this project be authorised because should the development not proceed the subject area will remain undeveloped. Potential job opportunities may be available to the local people of Gobabis during construction. The significance of the social impact was therefore deemed to be **Medium (positive)**.

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 an 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
IUCN	International Union for Conservation of Nature
MET	Ministry of Environment and Tourism
MET: DEA	Ministry of Environment and Tourism: Department of Environmental Affairs
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

The Shack Dwellers Federation of Namibia hereinafter referred to as the proponent intends to undertake the following activities:

- **Subdivision of the Farm Gobabis Townlands No. 114 into Portion A, B and the Remainder;**
- **Layout approval and township establishment on Portion A of the Farm Gobabis Townlands No. 114 to become known as Rose Valley;**
- **Layout approval and township establishment on Portion B of the Farm Gobabis Townlands No. 114 to become known as Rose Valley Extension 1.**

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) which may not be undertaken without an Environmental Clearance Certificate (ECC).

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 10.1 (a) Infrastructure	The construction of oil, water, gas and petrochemical and other bulk supply pipelines;	The proposed project involves the installation of bulk services.
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 route determination of roads.

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: DEA).

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

Portion A and B of the Farm Gobabis Townlands No. 114, designated for the proposed township establishments of Rose Valley Proper and Extension 1, is situated to the east of Gobabis town. It lies south of the B6 Road (T0602) leading to Buitepos and is located less than 500m east of the already established township of Nossobville, as depicted in **Figure 1 & 2** below.

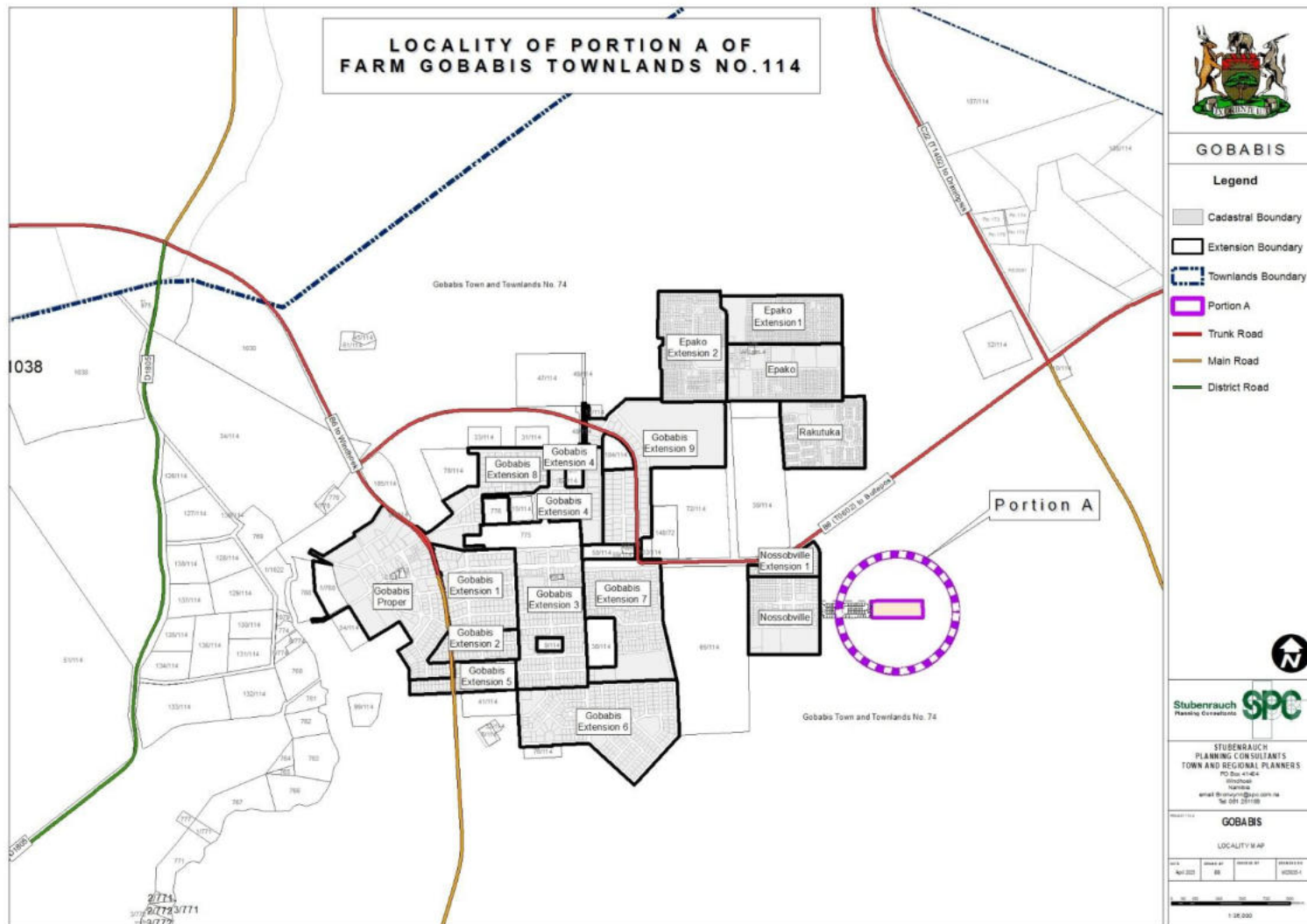


Figure 1: Locality of Portion A of the Farm Gobabis Townlands No. 114

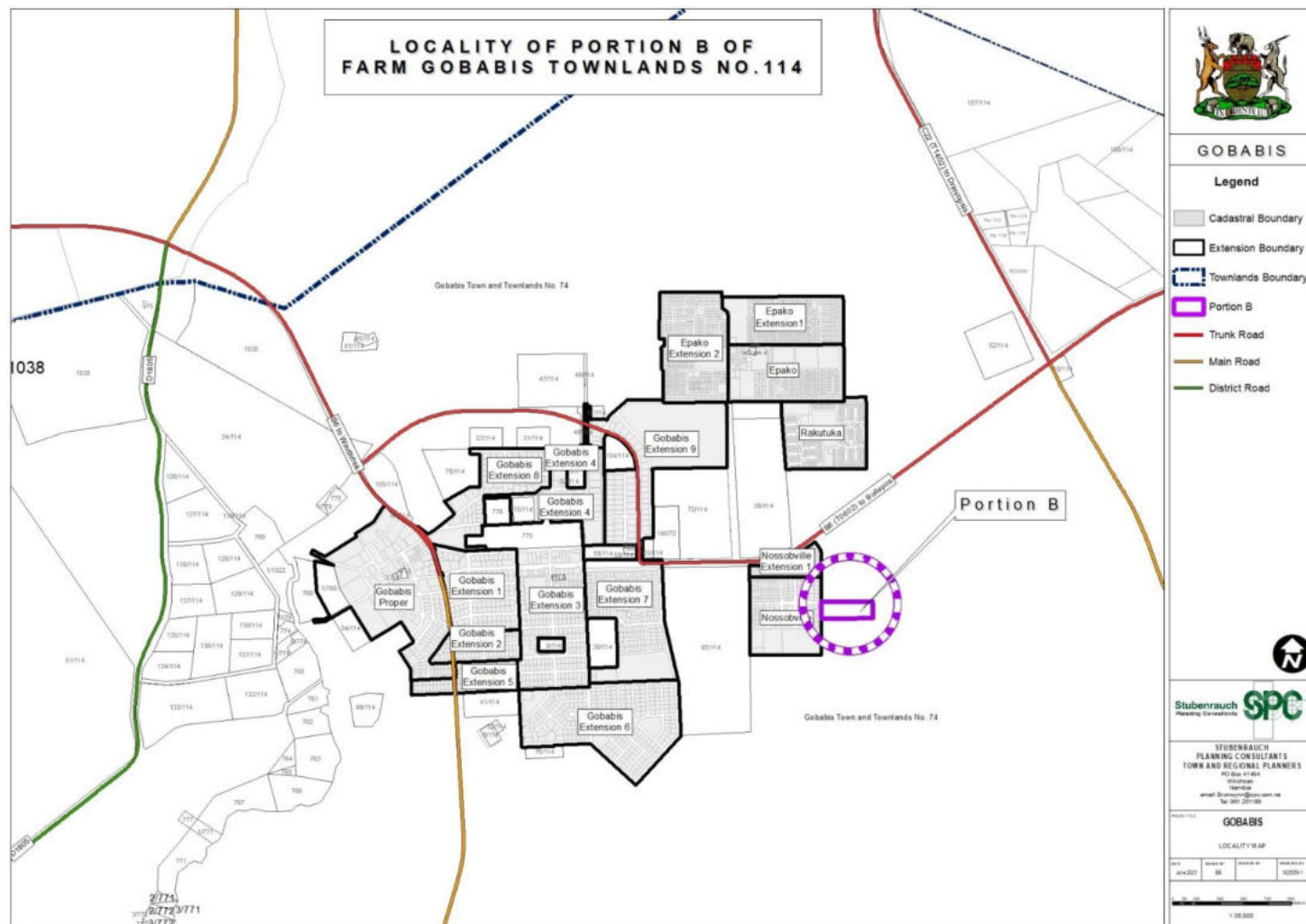


Figure 2: Locality of Portion B of the Farm Gobabis Townlands No. 114

1.3 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:

- **Subdivision of the Farm Gobabis Townlands No. 114 into Portion A, B and the Remainder;**
- **Layout approval and township establishment on Portion A of the Farm Gobabis Townlands No. 114 to become known as Rose Valley;**
- **Layout approval and township establishment on Portion B of the Farm Gobabis Townlands No. 114 to become known as Rose Valley Extension 1.**

1.4 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 Gobabis were however taken into consideration with the design perspective. Various layout alternatives were initially considered by the proponent, also taking terrain and environmental constraints into account, thus the current design plans being the most feasible result.

1.5 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

Section	Description	Section of FESR/ 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 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	Refer to Chapter 4

Section	Description	Section of FESR/ Annexure
	that the proposed activity or alternatives have on the environment and on the community that may be affected by the activity;	
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, erection or decommissioning associated with the undertaking of the proposed listed activity;	Refer to Chapter 7
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 activity was triggered by the proposed development: Activity 10.1 (a) Infrastructure Activity 10.1 b) Infrastructure Activity 10.2 (a) Infrastructure
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	The EA process should incorporate the aspects outlined in the guidelines.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	should be considered by the proponent in the scoping process.	
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.
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 are to be submitted to NAMPAB and Townships Board respectively.
Urban and Regional Planning Act 5 of 2018	The Act provides 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	The subdivision of land and establishment of townships is to be done in accordance with the act.

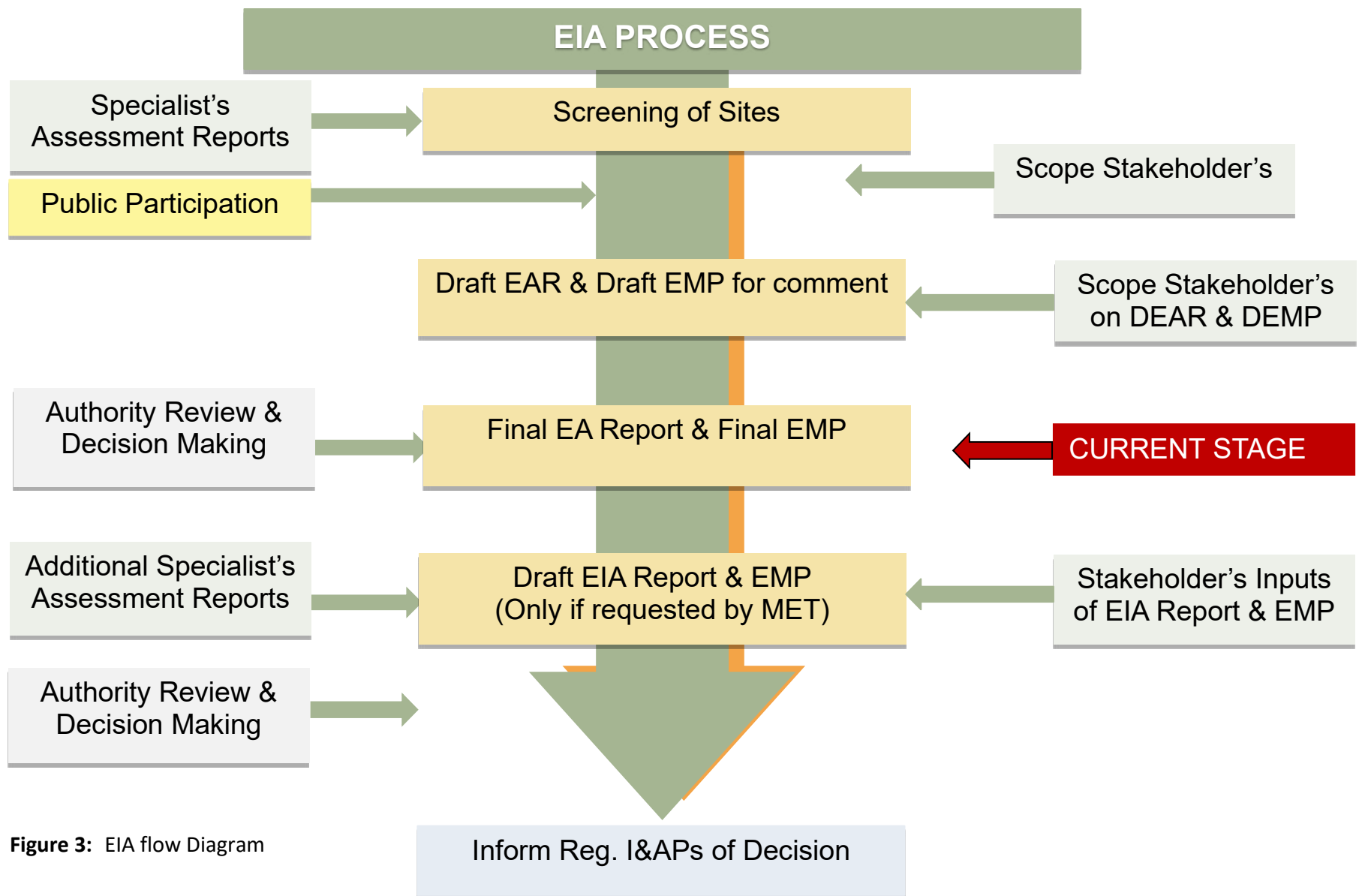
LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	plans and urban structure plans; to provide for the preparation, approval, review and amendment of zoning schemes; to provide for the establishment of townships; to provide for the alteration of boundaries of approved townships, to provide 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, 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.	Adhere to all applicable provisions of the Roads Ordinance.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	- 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.	
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 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	This EIA considers this term of Environment.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	ENVIRONMENT is broadly interpreted to include biophysical, social, economic, cultural, historical and political components.	
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 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. 1 of 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.	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 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	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).

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	Part V - air pollution by fumes emitted by vehicles.	
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.
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.



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 2023 Namibia Population and Housing Census (Namibia Statistics Agency, 2023), and presented from a local and regional perspective.

Table 4: Statistics of Gobabis and Omaheke Region (Namibia Statistics Agency, 2023)

OMAHEKE REGION	
ATTRIBUTE	INDICATOR
Population	102 881
Females	48 535
Males	54 346
Males per 100 Females	112
Literacy rate of 15 years old and above	76.0%
People above 15 years who have never attended school	21.6%
People above 15 years who are currently attending school	13.3%
People above 15 years who have left school	63.9%
Population under 5 years	15.1%
Population aged 5 to 14 years	21.3%
Population aged 15 to 34 years	34.1%
Population aged 35 to 59 years	22.4%
Population aged 60 years and above	7.0%
Income from wages & Salaries	50.4%
Income from Old Age Pension	13.9%
Income from Business, Non-Farming	5.0%
Income from Farming	9.3%
GOBABIS	
ATTRIBUTE	INDICATOR
Population	35 452
Male	17 470
Female	17 982

3.1.2 Archaeological and Heritage Context

No archaeological and heritage sites are known to be located within the proposed development area. The project management should however be made aware of the provisions of the National Heritage Act regarding the prompt reporting of archaeological finds.

3.2 BIO-PHYSICAL ENVIRONMENT

3.2.1 Climate

The climate of the subject area can be described as a semi-arid climate prevailing (Köppen climate classification BWh), with very hot summers and extremely warm winters (with warm days and cold nights). Average annual temperatures are usually more than 22°C, with average maximum temperatures between 34°C and 36°C and average minimum temperatures between 6°C and 8°C (Mendelsohn, Jarvis, Roberts, *et al.*, 2002).

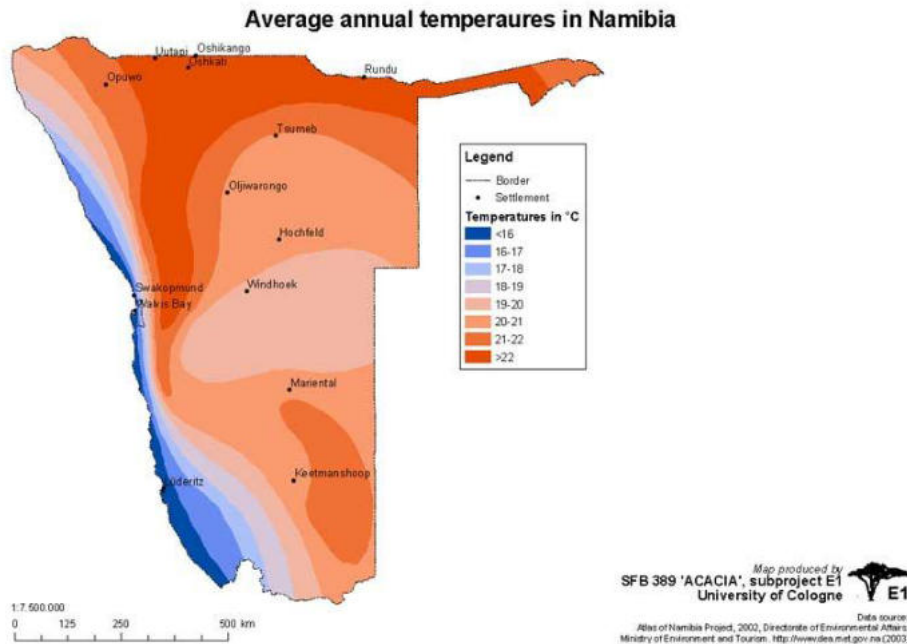


Figure 4: Annual average temperature (http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/e1_download_climate_e.htm#temperature_annual)

The subject area generally experiences more rainfall than the south and west of the country with an average rainfall of 350 to 400 mm as indicated in **Figure 4** below.

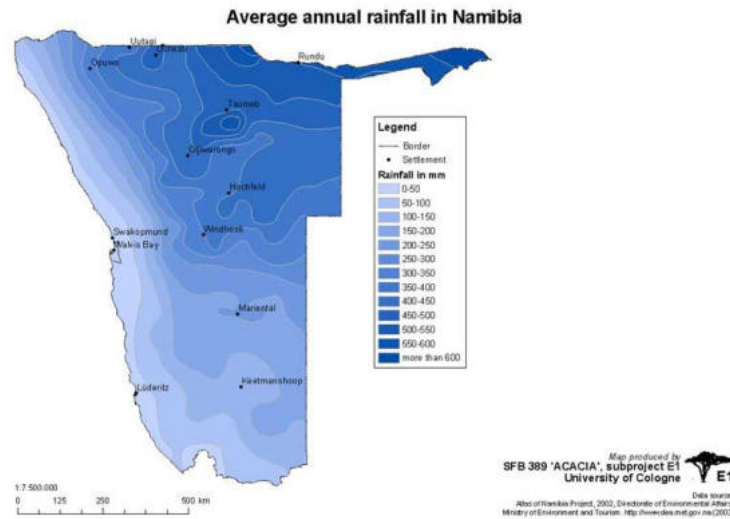


Figure 5: Average annual Rainfall (http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/pics/climate/rainfall-annual.jpg)

3.2.2 Topography, Geology and Soils

The Omaheke Region forms part of the Kalahari Group Geological division depicted in pale yellow in **Figure 5** below. The sands are often windblown (aeolian), forming flat to gently undulating plains interrupted by some dunes, fossil drainage channels (omiramba), and depressions/pans (Mendelsohn *et al.*, 2002).

The slope of the subject area is generally flat, and the soil conditions and topography are suitable for the proposed township development.

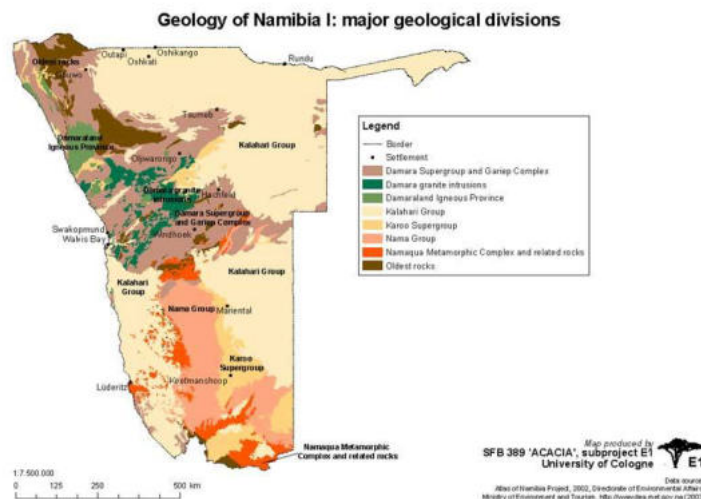


Figure 6: Geology of Namibia (http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/pics/physical/geology.jpg)

3.2.3 Hydrology and Hydrogeology

In terms of groundwater, the area falls mainly within the Hochfeld – Dordabis – Gobabis area (shaded light blue on the map) as depicted in **Figure 6** below. The groundwater of the Hochfeld Dordabis is mostly found in fractured rock aquifers beneath the sands (particularly in the underlying Damara Supergroup formations).

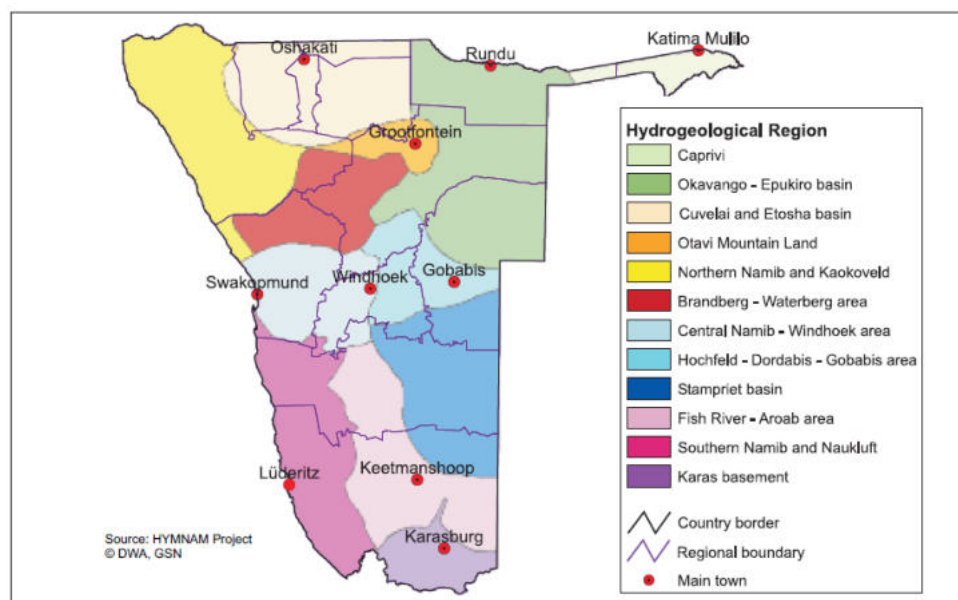


Figure 7: Groundwater basins and hydrogeological regions in Namibia

The groundwater area stretches east of Windhoek to the Botswana border, covering most of the Omaheke Region. It lies between the northern Omaheke–Epukiro Kalahari basins and the Stampriet artesian basin, making it a transitional hydrogeological zone. Alluvial aquifers found along ephemeral rivers such as the Seeis and White Nossob. Alluvium is shallow (10–15 m thick) but allows high abstraction rates and is recharged by floods.

Gobabis is supplied mainly from groundwater boreholes north-east of town, supplemented historically (and occasionally) by the Otjivero Dam. The reliable supply comes from fractured quartzite aquifers and Kalahari porous sands, which receive recharge from local rainfall and ephemeral rivers. (Ministry of Agriculture Water and Rural Development, 2011). Surface water is not a reliable long-term supply: ephemeral rivers / omirambas will provide water only during wet periods. Year-round or dry season flows are rare or absent. Existing dams on these ephemeral rivers (if any for Gobabis area, e.g. Otjivero Dam) will depend heavily on occasional rains upstream, so storage fill is irregular. Pans, small catchment ponds, earth dams can help with livestock or temporary supplies but are insufficient for large scale domestic or town supply unless supplemented by groundwater. High losses via evaporation and seepage into sandy soils further reduce usable volumes.

Omaheke rarely experiences widespread flooding, but omirambas and ephemeral rivers can flood seasonally after heavy rains. These floods are usually short-lived but ecologically and hydrologically important, recharging groundwater and providing grazing. In contrast, the north of Namibia (Cuvelai basin) experiences major annual floods that affect thousands of people. (Mendelsohn et al., 2002)

Lower lying areas within town coupled with increasing run-off during flood occurrences pose a challenge for stormwater management. As such it is essential that stormwater management systems be implemented within town. Flooding occurring results mainly from local run-off that cannot drain away (Lithon Project Consultants, 2016).

The subject area is not subject to flooding. Provision for storm water run-off can however be made within the new street reserves to be created.

3.3 TERRESTRIAL ECOLOGY

3.3.1 Flora and Fauna

Mendelsohn & el Obeid (2005) describe the Omaheke region's flora as characteristic of a semi-arid savanna environment, with vegetation strongly influenced by soil type, terrain, and moisture availability. The flora predominantly includes trees like *Combretum imberbe* (Leadwood), *Acacia tortilis*, and various *Acacia* species such as *Acacia mellifera* (blackthorn). Shrubs and grasses are less dense, contributing to a semi-open bushland structure. The region also contains floodplains and omiramba systems with distinct vegetation including grasses like *Eragrostis* species and shrubs adapted to these conditions. Wetland vegetation can be found in specific areas such as along the Omuramba Omatako, with associated wetland plants.

Regarding fauna, although Mendelsohn & el Obeid (2005) do not provide a detailed species list specific to the Omaheke region here, the habitat supports fauna typical of the semi-arid savanna and Kalahari biome that includes widespread mammals adapted to this environment. The overall biodiversity is shaped by the type of vegetation communities and the availability of water, with some areas suffering from issues like bush encroachment and overgrazing which affect the ecosystem dynamics.

In summary, the Omaheke region's ecological composition includes a mix of savanna tree species, shrubs, and grasses adapted to semi-arid conditions along with specific wetland vegetation in floodplain areas, supporting fauna typical of the Central Kalahari biome (Mendelsohn *et al.*, 2002).

4 PROJECT DESCRIPTION

4.1 PROJECT COMPONENTS

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

- **Subdivision of the Farm Gobabis Townlands No. 114 into Portion A, B and the Remainder;**
- **Layout approval and township establishment on Portion A of the Farm Gobabis Townlands No. 114 to become known as Rose Valley;**
- **Layout approval and township establishment on Portion B of the Farm Gobabis Townlands No. 114 to become known as Rose Valley Extension 1.**

These components will be described in further detail below, in terms of their design, layout and footprint.

4.2 ALTERNATIVES

As pointed out in Section 1.4 above various layout alternatives were initially considered by the proponent, ultimately resulting in the final layouts.

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 land would remain unformalized. The proposed township would thus not be developed, and the town would thus not be able to benefit from the proposed development.

4.3 THE PROPOSED DEVELOPMENT

The Shack Dwellers Federation of Namibia (Proponent), founded in 1998, is a community-driven network of housing savings schemes that enables low-income Namibians—especially those residing in informal settlements—to gain access to secure land, affordable housing, and essential services. Supported by the Namibia Housing Action Group (NHAG), the Federation has expanded significantly and now comprises nearly 1,000 savings groups operating across all 14 regions of Namibia. The Municipal Council of Gobabis passed a resolution allocating 5 hectares of land to the SDFN and NHAG for the development of low-income housing.

The establishment of the townships will lead to the creation of individual erven, paving the way for the construction of low-income housing for members of the Shack Dwellers Federation of Namibia

(SDFN). These beneficiaries are often excluded from the formal housing market due to their limited access to credit from private financial institutions.

By offering secure tenure and affordable land, the project integrates these individuals and families into the formal housing sector, advancing social inclusion and economic empowerment.

Access to homeownership instills a sense of dignity, stability, and responsibility, while also encouraging personal investment in community development. It facilitates the transfer of wealth across generations and motivates residents to maintain and upgrade their homes, thereby supporting the long-term sustainability of the township.

From the perspective of the municipality, the township establishments offers long-term financial and administrative advantages. Once the erven are formally registered, they become rateable properties, contributing to the local revenue stream. These funds can be reinvested into vital public services and infrastructure improvements, such as road maintenance, enhanced stormwater management, and the revitalisation of communal spaces like parks and community centres.

The overall design of the layout for Rose Valley and Extension 1 is guided by biophysical factors and environmental considerations. However, the primary determinants of the design as discussed and agreed upon with the client, are as follows:

- (a) Make provision for optimum number of residential erven in the layout;
- (b) Provide residential erven with sizes no less than 350m²;
- (c) Make provision for a 15m wide access street; and
- (d) Make provision for a 20m wide street to carry traffic out of the township.

4.3.1 The Subdivision of the Farm Gobabis Townlands No. 114 into Portion A, B and the remainder

In order to make land available for the proposed township establishments, subdividing the Farm Gobabis Townlands No. 114 as depicted in **Figure 8 & 9** below is necessary.

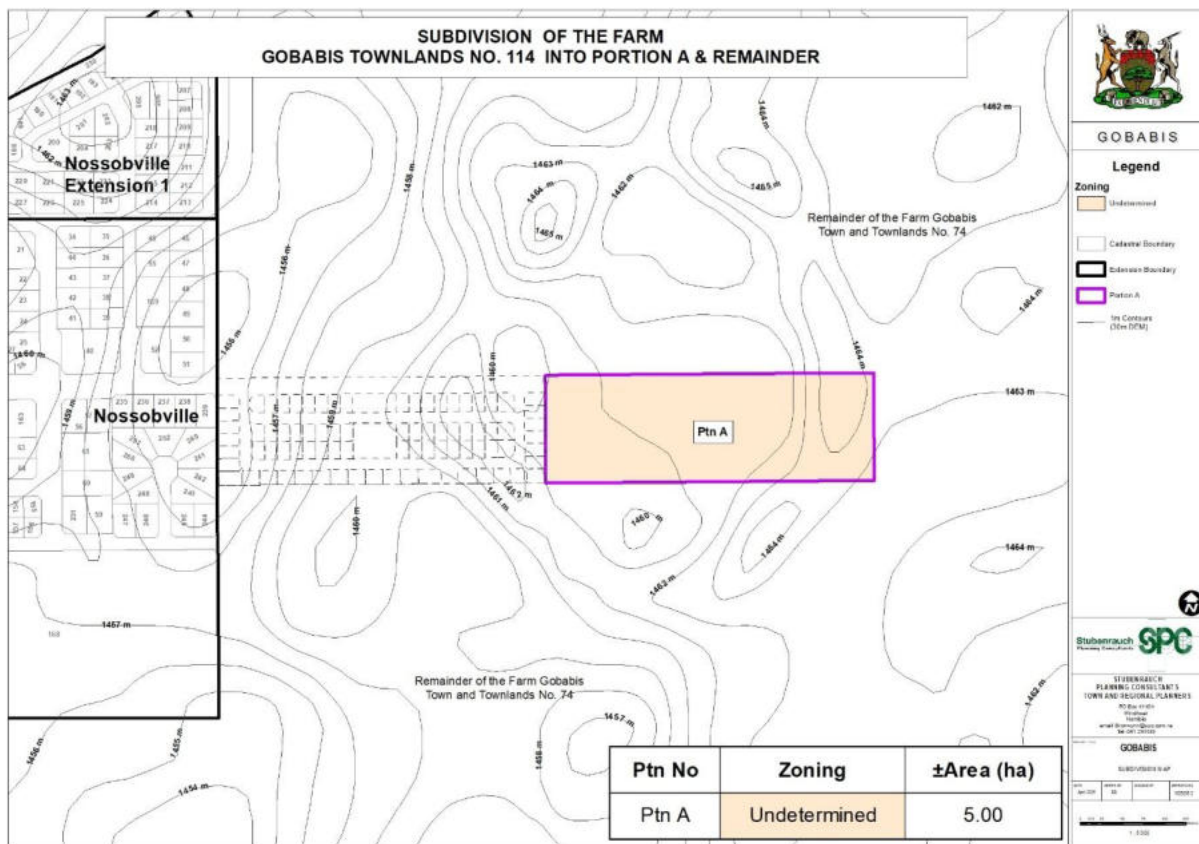


Figure 8: Subdivision of the Farm Gobabis Townlands No. 114 into Portion A, B and the Remainder

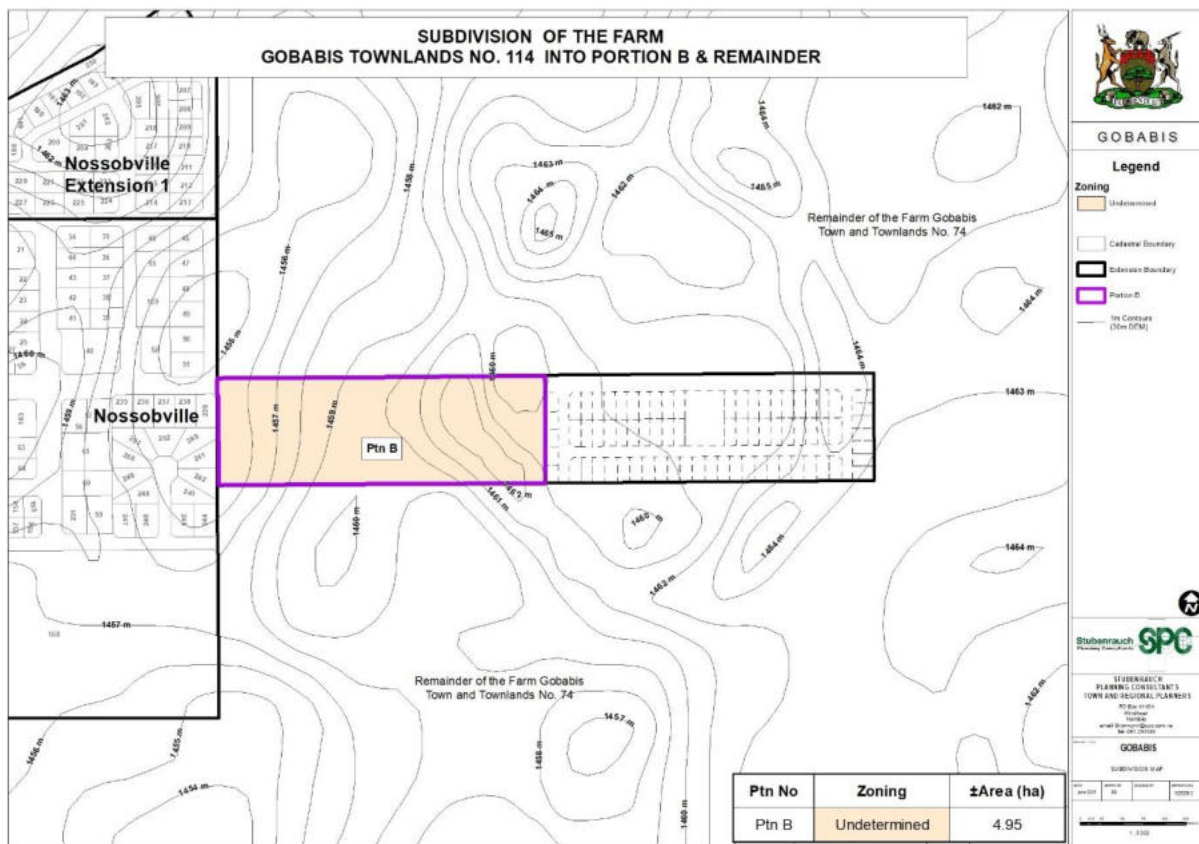


Figure 9: The Subdivision of the Farm Gobabis Townlands No. 114 into Portions B & Remainder

4.3.2 The layout plan for Rose Valley

The layout for Rose Valley responds to the planning brief provided to SPC by the SDFN which has the aim to mainly provide residential properties in support of the low-income sector.

Residential erven

Rose Valley is to comprise of 74 erven and the remainder (street). The proposed layout has a strong residential component thus comprising of single residential erven of a total of 73 erven.

Public open space

Within the proposed layout for the Rose Valley Township, a single Public Open Space (POS) erf which is identified as Erf 74 has been included. This erf is designed to function as a multifunctional public space, with the potential to serve as a playground, community garden, and pedestrian walkway. By

offering a safe and pleasant route through the block, it enhances walkability within the township, encouraging residents to move around on foot rather than relying on vehicles. This not only promotes healthier lifestyles but also strengthens social interaction.

The inclusion of a walkway within the multifunctional public open space supports the principle of walkability, which refers to how easy and safe it is for people to walk within a neighbourhood.

Street

Four (4) streets are made provision for within the layout and the average street width of the Rose Valley township is approximately 17 m, with 15m wide internal access streets as well as a 20 wide street on the northern boundary of the layout.

While the 15m wide street is designed to primarily provide access to the internal neighbourhood and the individual erven, the 20m wide street serves as a collector of traffic from the township to the rest of the town.

The street layout is designed in such a manner that it accommodates connectivity to any other future development. These street widths are sufficient for the intended development. The street layout is designed to facilitate easy connection to future townships and to accommodate the natural topography, promoting efficient stormwater drainage.

Additionally, the street layout is designed in a manner that is cost efficient for installation engineering services.

Table 3: Summary Table

Zoning	No of Erven	± Total Area(ha)	% of Total Area
Residential	73	3.23 (1:300)	55.50
Public Open Space	1	0.30	1.83
Street	Remainder	2.29	39.35
TOTAL	74 & Remainder	5.82	100.00

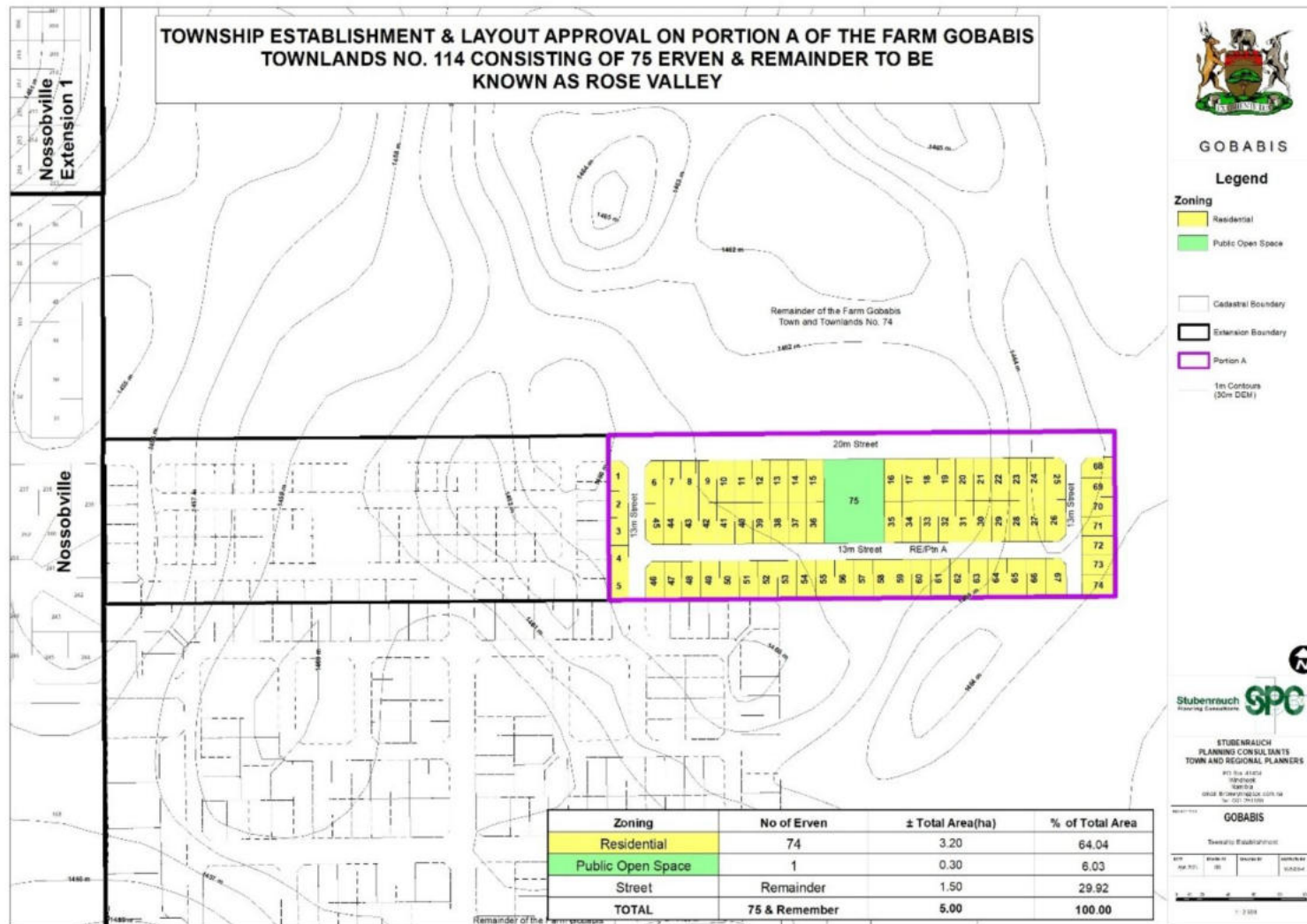


Figure 10: Township Establishment and Layout Approval on Portion A

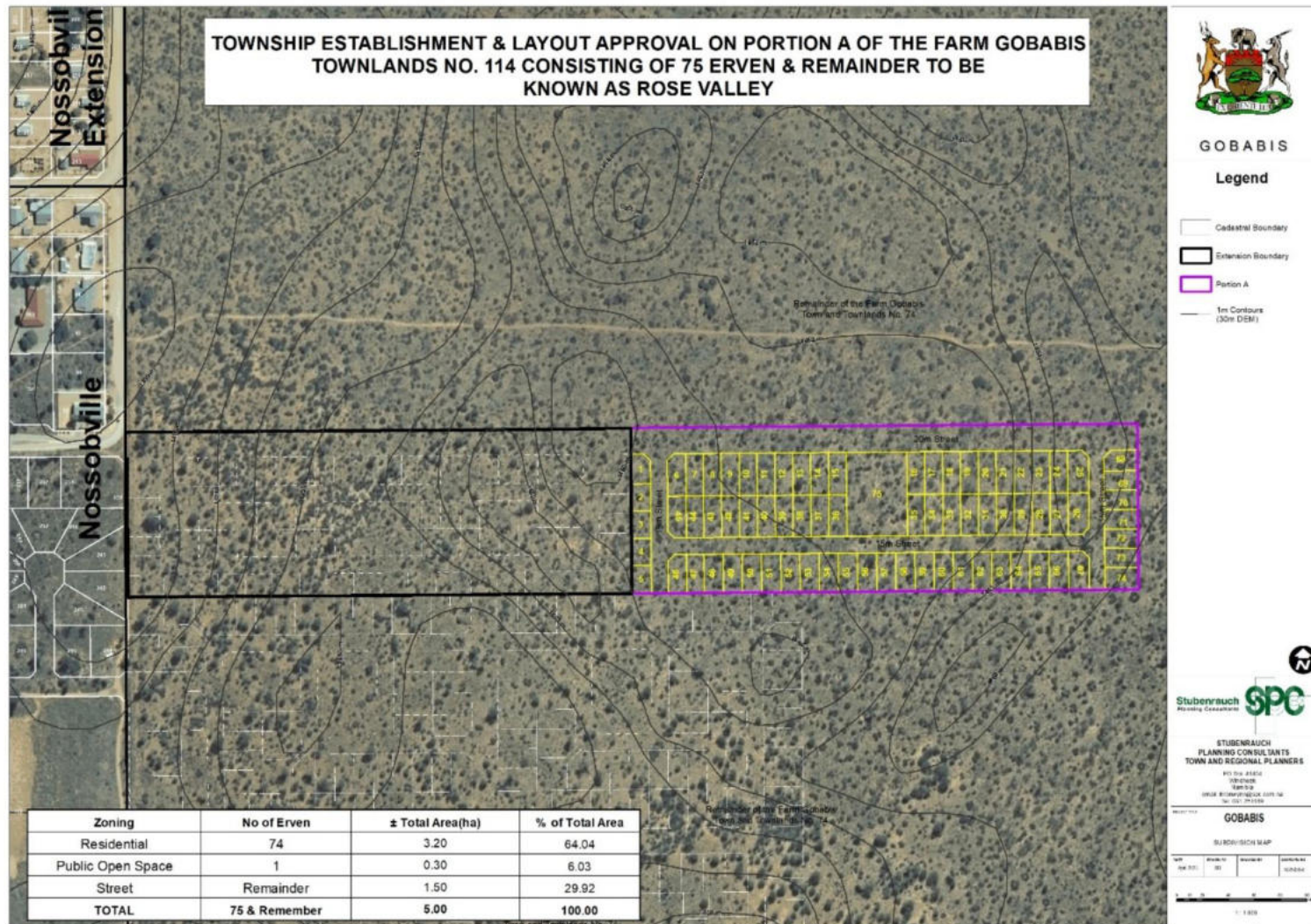


Figure 11: Township Establishment and Aerial Layout Approval on Portion A

4.3.3 The Layout Plan for Rose Valley Extension 1

The layout for Rose Valley Extension 1 responds to the planning brief provided by the Proponent which has the aim to mainly provide residential properties in support of the low-income sector.

Residential erven

Rose Valley Extension 1 is to comprise of 100 erven and the remainder (street). The proposed layout has a strong residential component thus comprising of single residential erven.

Public open space

Within the proposed layout for the Rose Valley Township, two Public Open Spaces (POS) are planned. These erven are designed to function as multifunctional public spaces, with the potential to serve as a playground, sports field, community garden, and pedestrian walkway. This not only promotes healthier lifestyles but also strengthens social interaction.

Street

The average street width of the Rose Valley township is approximately 13m wide internal access streets as well as a 20m wide street on the northern boundary of the layout.

The streets within the layout take up (25.06%) of the total land area. These street widths are sufficient for the intended development. The street layout is designed to facilitate easy connection to future townships and to accommodate the natural topography, promoting efficient stormwater drainage.

The **Table 5** and **Figures 11 & 12** below indicate the layout and zonings of the erven to be created within the proposed township.

Table 5: Summary Table

Zoning	No of Erven	± Total Area(ha)	% of Total Area
Residential	98	3.30	69.20
Public Open Space	2	0.28	5.87
Street	1	0.16	3.39
Street	Remainder	1.03	21.67
TOTAL	101 & Remainder	4.77	100.00

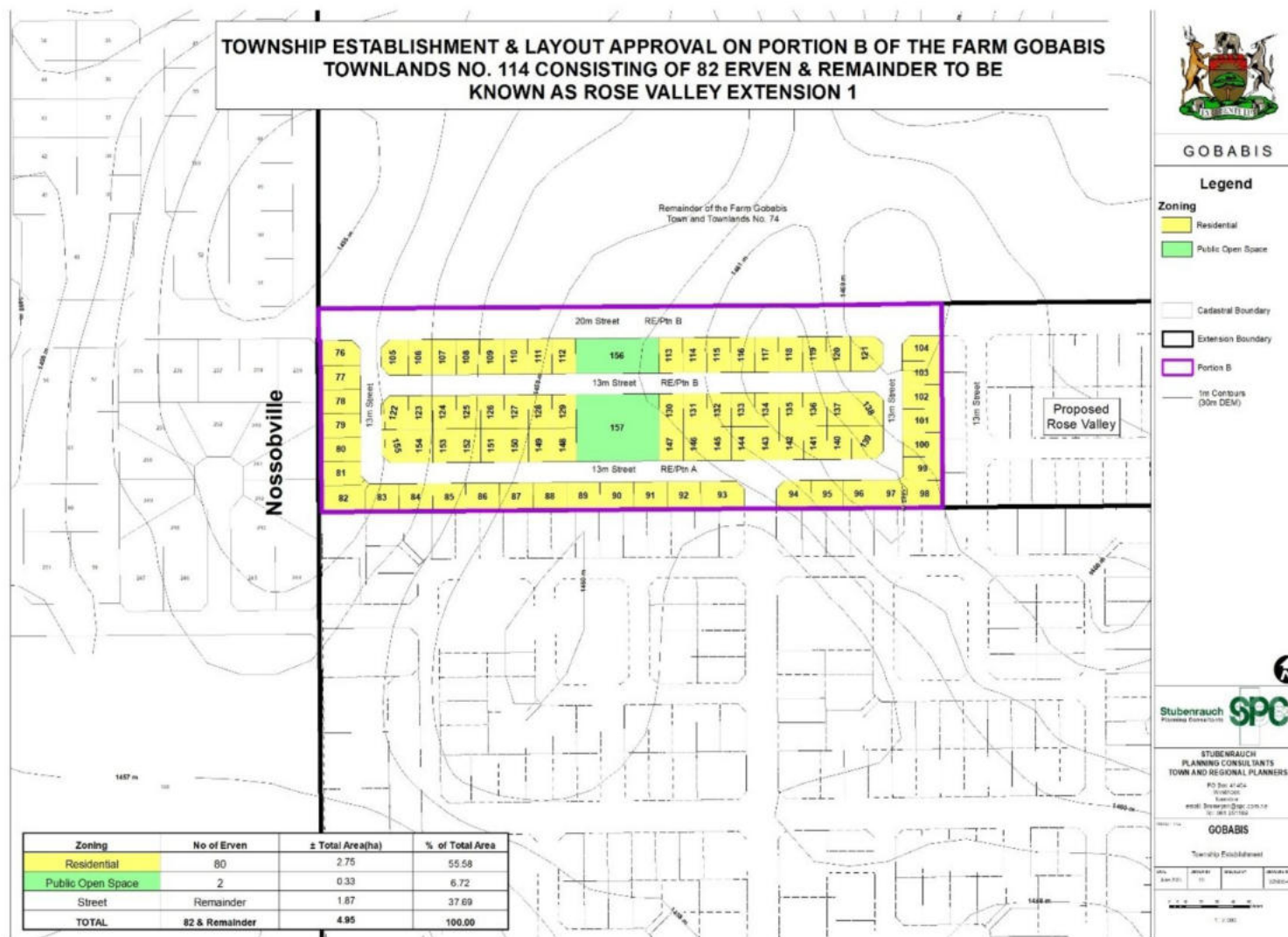


Figure 12: Layout of Rose Valley Extension

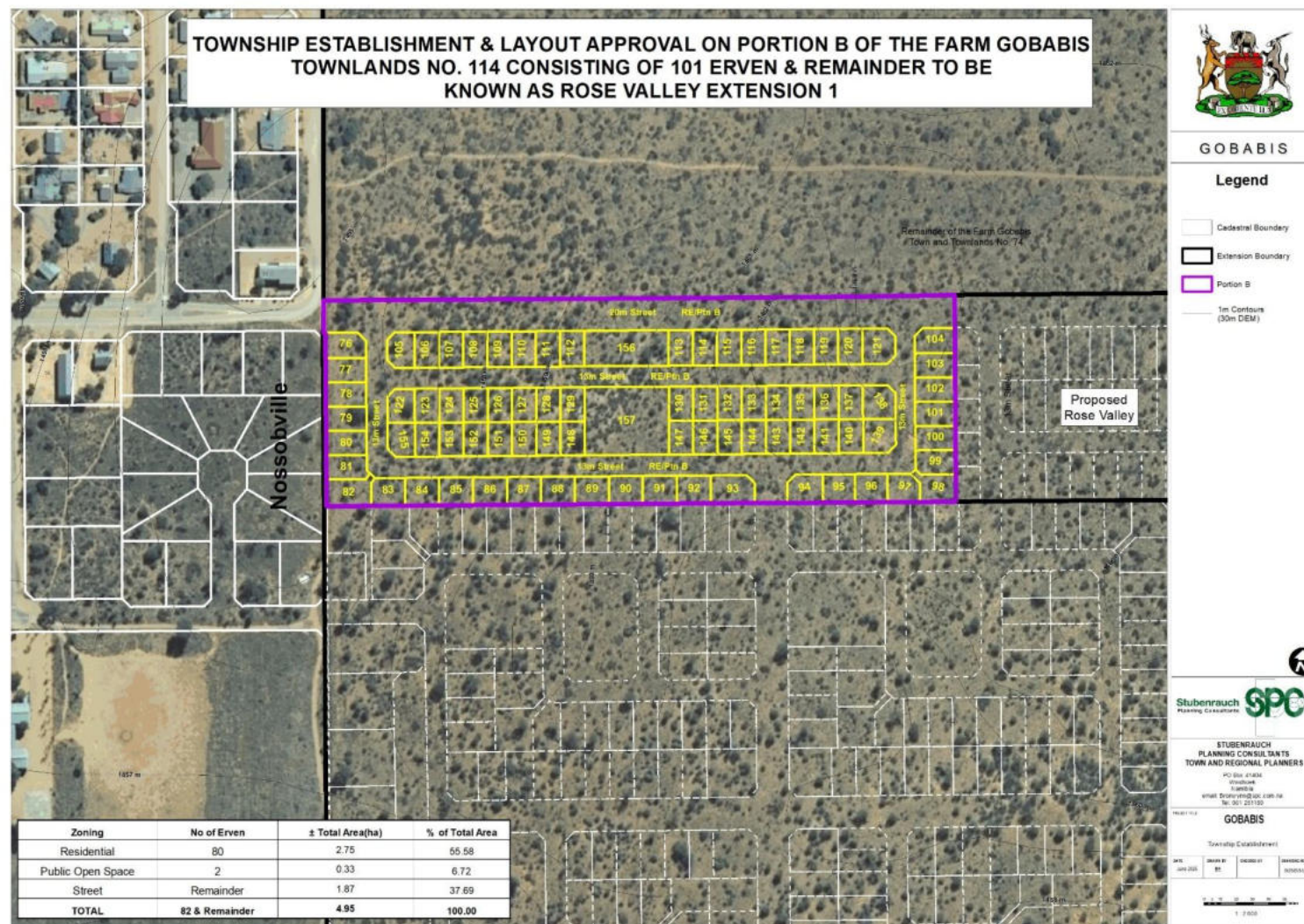


Figure 13: Aerial Layout of Rose Valley Extension

4.3.4 Engineering Services and Access Provision

Electricity

The proposed townships to be established on the Farm Gobabis Townlands No. 114 will be connected to the municipal electricity distribution grid which currently provides electrical power to the town of Gobabis.

Water and sewer

The proposed townships will be connected to the municipal reticulation system of water and sewer provided by the Municipal Council of Gobabis, which is to be extended to the proposed townships.

Storm Water

Stormwater is to be drained as per the natural drainage system on the site and additional storm water drainage and management measures will be employed in accordance with the Municipal Council of Gobabis Drainage System.

Access

Access to the development will be provided via the 20m and 13m wide streets.

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 6** below for the activities undertaken as part of the public participation process. The I&APs were given time to comment from **25 July 2025 to 25 August 2025**.

Table 6: Table of Public Participation Activities

ACTIVITY	REMARKS
Placement of site notice/poster in Gobabis	See Annexure A
Placing advertisements in two newspapers namely the Namibian and New Era (30 July 2025 and 06 August 2025)	See Annexure B
Written notice to surrounding property owners and Interested and Affected Parties via Email (30 July 2025)	See Annexure C
A public meeting held on 07 August 2025 at 12h00 at Gobabis	See Annexure C

Based on the public participation data, it shows that there were no major issues raised by the I & APs in line with the proposed development. The general public and all stakeholders attended the meeting raised no environmental concerns regarding the development.

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 was informed of the availability of the DESR for public comment *via* a letter/email dated **26 September 2025**. An Executive Summary of the DESR was also be included in the letters to the registered I&APs. I&APs had until **10 October 2025** 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 7**.

Table 7: 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 <u>occurring</u>	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 despite 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 considering 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 10** 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.

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.

Restoration: This step is taken to improve degraded or removed ecosystems following exposure to impacts that cannot be completely

Figure 14: Mitigation Hierarchy

avoided or minimized. 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: DEA for consideration. In turn, MEFT: DEA'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.

7.2 PLANNING AND DESIGN PHASE IMPACTS

7.2.1 Traffic Impacts

The intended development may have an impact on traffic in the subject area. The traffic is not expected to increase significantly as the erven are located in proximity to an already developed area within the town.

7.3 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.

7.3.1 Flora and Fauna Impacts (Biodiversity)

There are trees located on the subject erf. The trees located on the subject site should be accommodated in the proposed use for the area. 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.

It is anticipated that the proposed development area and associated infrastructure (e.g. water, sewage, access route, etc.) 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.

7.3.2 Surface and Ground Water Impacts

Surface and groundwater impacts may be encountered during the construction and operation 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. This risk is minimized by the fact that the construction phase will be a short-term activity.

7.3.3 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.

7.4 CONSTRUCTION PHASE IMPACTS ON THE SOCIO-ECONOMIC ENVIRONMENT

7.4.1 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.

7.4.2 Health, Safety and Security Impacts

Working conditions on site need to ensure that the health and safety of construction workers are always ensured. The use of local labour during construction is strongly encouraged 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.

7.4.3 Traffic Impacts

Traffic can be expected to increase slightly during the construction phase 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, it will also impact on the roads in the area.

7.4.4 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.

7.4.5 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.

7.4.6 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 if not managed well are likely to create an opportunity for water wastage; litter; solid and human waste pollution. As such the mitigation measures outlined in the EMP are to be adhered to to minimise these impacts.

7.4.7 Storage and Utilization 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.

7.4.8 Waste Impacts

During construction waste may be generated on site. Waste generated during construction must be disposed of at the nearest approved landfill site.

7.5 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 impacts of the proposed township once operational mostly include the change in sense of place, impacts of noise, dust and emissions. A general overview of potential impacts will be discussed.

7.5.1 Visual Impacts

Once developed, there will be a change in the visual characteristics of the area. 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 area. This impact would mostly affect the surrounding property owners within the neighbourhood and the people who frequently visit the area.

7.5.2 Noise Impacts

The operational activities may result in associated noise impacts, depending on the exact type of activities taking place on the properties. However due to the nature of the land uses proposed for the subject erven it is not expected that the noise levels will be significant if managed well.

7.5.3 Emission Impacts

The air quality in the area is considered to be fairly good. Additional emissions are not expected due to the land uses that are intended for the site.

7.5.4 Social-Economic Impacts

The proposed township establishments will have a significant positive socio-economic impact on the community. By empowering future property owners through home ownership, the development will encourage a sense of stability and investment in the area. Home ownership is a key factor in economic empowerment, providing individuals and families with an asset that can grow in value over time.

Additionally, the establishment of these townships offers a valuable opportunity for the Municipal Council of Gobabis to generate revenue through rates and taxes. Once the erven are registered in separate titles, the council will benefit from a steady stream of income. This income can be reinvested into local infrastructure, services, and community projects, supporting the town's growth and development.

7.6 CUMULATIVE IMPACTS

The cumulative impact 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.

7.7 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.

7.8 SUMMARY OF POTENTIAL IMPACTS

A summary of all the potential impacts from the proposed project assessed above is included in **Table 8**. The **Tables 09 – 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 8: 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. Traffic Impacts	Gobabis	No mitigation	Local	Medium-Low	Short term	Medium	Probable	Certain	Reversible	Medium (-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
CONSTRUCTION PHASE										
1. Biodiversity (Fauna and Flora)	Gobabis	No mitigation	Local	Medium-Low	Short term	Low	Probable	Certain	Reversible	Medium (-ve)
		Mitigation	Local	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
2. Surface & ground water	Gobabis	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
3. Soil erosion	Gobabis	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)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
4. Heritage	Gobabis	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
5. Health, safety and security	Gobabis	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
6. Traffic impacts	Gobabis	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
7. Noise impacts	Gobabis	No mitigation	Local	Medium	Short term	Medium - low	Probable	Certain	Reversible	Medium - Low (-ve)
		Mitigation	Local	Low	Short term	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

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
8. Emissions impacts	Gobabis	No mitigation	Local	Medium	Short term	Low	Probable	Certain	Reversible	Medium - Low (-ve)
		Mitigation	Local	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
9. Municipal services	Gobabis	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. Waste	Gobabis	No mitigation	Local	Low	Short term	Medium	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very low	Short term	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. Hazardous Substances	Gobabis	No mitigation	Local	Low	Short term	Medium	Probable	Certain	Reversible	Low (-ve)
		Mitigation	Local	Very low	Short term	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

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
OPERATIONAL PHASE										
1. Visual & sense of place	Gobabis	No mitigation	Local	Medium	Medium term	Medium	Probable	Certain	Reversible	Medium (-ve)
		Mitigation	Local	Medium-Low	Medium term	Medium-Low	Probable	Certain	Reversible	Medium-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. Noise	Gobabis	No mitigation	Local	Medium-Low	Medium term	Medium-Low	Probable	Certain	Reversible	Medium-Low (-ve)
		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	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
3. Emissions	Gobabis	No mitigation	Local	Medium-Low	Medium term	Low	Probable	Certain	Reversible	Medium-Low (-ve)
		Mitigation	Local	Low	Medium term	Very 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
4. Social impact	Gobabis	No mitigation	Local	Medium	Long term	Medium (+)	Probable	Probable	Reversible	Medium (+)

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

Table 9: Proposed mitigation measures for the planning and design phase

PLANNING AND DESIGN PHASE IMPACTS	
Impact	Mitigation Measures
Traffic	• Ensure that road junctions have good sightlines. • Provide formal road crossings at relevant areas. • Provide for speed reducing interventions such as speed bumps at relevant road sections.

Table 10: Proposed mitigation measures for the construction phase

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
Flora and Fauna	• Prevent the destruction of protected and endemic plant species. • Prevent contractors from collecting wood, veld food, etc. during the construction phase. • Do not clear cut the entire development site, but rather keep the few individual trees/shrubs not directly affecting the developments as part of the landscaping. • The plants that are to be kept should be clearly marked with “danger tape” to prevent accidental removal. • Regular inspection of the marking tool should be carried out. • The very important plants should be “camped off” to prevent the unintended removal or damage to these trees. • Recommend the planting of local indigenous species of flora as part of the landscaping as these species would require less maintenance than exotic species. • Transplant removed plants where possible, or plant new plants in lieu of those that have been removed.

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
	Prevent the introduction of potentially invasive alien ornamental plant species such as; <i>Lantana</i>, <i>Opuntia</i>, <i>Prosopis</i>, <i>Tecoma</i>, etc.; as part of the landscaping as these species could infest the area further over time.
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. - 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	

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
	• 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. • A wellness program should be initiated to raise awareness on health issues, especially the impact of sexually transmitted diseases as described above. • Provide free condoms in the workplace and to local community throughout the construction period and promote their usage. • Facilitate access to Antiretroviral (ARV) medication. • Encourage HIV counselling and testing. • Encourage Voluntary Medical Male Circumcision (VMMC). • Provide awareness on the prevention of mother to child HIV Transmission. • Restrict unauthorized access to the site and implement access control measures. • Clearly demarcate the construction site boundaries along with signage of “no unauthorized 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.

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
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.
Noise	• No amplified music should be allowed on site. • Inform immediate neighbors of construction activities to commence and provide for continuous communication between the neighbors 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 minimize windblown dust. • Provide workers with dust masks.

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

Table 11: Proposed mitigation measures for the operational phase

OPERATIONAL PHASE IMPACTS	
Impact	Mitigation Measures
Visual and Sense of Place	• It is recommended that more 'green' technologies be implemented within the architectural designs and building materials of the development where possible in order to minimise the visual prominence of such a development within the more natural surrounding landscape. • Natural colours and building materials such as wood and stone should be incorporated as well as the use of indigenous vegetation in order to help beautify the development. • Visual pollutants can further be prevented through mitigations (i.e. keep existing trees, introduce tall indigenous trees; keep structures unpainted and minimising large advertising billboards).
Noise	• Do not allow commercial activities that generate excessive noise levels. • Continuous monitoring of noise levels should be conducted to make sure the noise levels does not exceed acceptable limits. • No activity having a potential noise impact should be allowed after 18:00 hours if possible.
Emissions	• Consider tarring of the internal road network. • Manage activities that generate emissions.
Social Impacts	No specific mitigation measures are required, only that the local community be consulted in terms of possible job creation opportunities and must be given first priority if unspecialised job vacancies are available.

8 CONCLUSION

The purpose of this Chapter is to briefly summarise and conclude the FESR 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 significance 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

The most significant **Medium (positive)** impact is the social impact directly associated with the intended development of the township which aims to offer residential opportunities for the residents in Gobabis.

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 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 Chapter 7 as well as in the EMP, 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.

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 subject area will remain vacant and undeveloped. Potential job opportunities may be available to the local people of Gobabis during construction. The significance of the social impact was therefore deemed to be **Medium (positive)**.

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 an 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

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