

NOVEMBER 2025

Environmental Management Plan for

Subdivision of Erf 1697, Oshakati North Extension 8 into Erf A, and the Remainder, Permanent Closure of Erf A as a Public Open Space, Rezoning of Erf A from Public Open Space to "Single Residential"



Prepared for: Oshakati Town Council

Private Bag: 5530, Oshakati

Contact Person: Alina Amwaama

Contact number: 065 229500

Email: AlinaAmwaama@oshtc.na



Prepared by: Thavira Enterprises

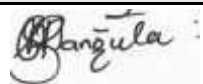
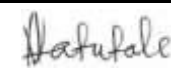
Contact Person: Thandiwe Mbangula

Physical Address: No 200 Long Island Street, Windhoek

Contact number: +264858004613

Email: thaviraenterprises@gmail.com

PROJECT DETAILS

Title	<ul style="list-style-type: none"> Subdivision of Erf 1697, Oshakati North Extension 8 into Erf A, and the Remainder, Permanent Closure of Erf A as a Public Open Space, Rezoning of Erf A from Public Open Space to "Single Residential" 		
Report Status	Final Report- APP 006798		
Proponent	Oshakati Town Council Private Bag: 5530, Oshakati Contact Person: Alina Amwaama Contact Number: 065 229500 Email: AlinaAmwaama@oshtc.na		
Environmental Assessment Practitioner	Thavira Enterprises Contact Person: Thandiwe Mbangula Physical Address: No 200 Long Island Street, Windhoek Contact number: +264858004613 Email: thaviraenterprises@gmail.com		
Report Date	November 2025		
	Name	Signature	Date
Authors	Thandiwe N Mbangula		November 2025
Reviewer	Victoria P Hatutale		November 2025

LEGAL NOTICE

This report or any portion thereof and any associated documentation remain the property of **Thavira Enterprises** until the mandator effects payment of all fees and disbursements due to **Thavira Enterprises** in terms of the **Thavira Enterprises Conditions of Contract and Project Acceptance Form**. Notwithstanding the aforesaid, any reproduction, duplication, copying, adaptation, editing, change, disclosure, publication, distribution, incorporation, modification, lending, transfer, sending, delivering, serving or broadcasting must be authorised in writing by **Thavira Enterprises**

TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROPOSED DEVELOPMENT	2
2.1 Subdivision	3
2.2 Proposed Permanent Closure and Rezoning	3
3. ROLES AND RESPONSIBILITIES	4
3.1 Proponent's Representative	4
3.2 Environmental Control Officer	4
3.3 Contractor	5
4. MANAGEMENT ACTIONS	6
4.1 Assumptions and Limitations	6
4.2 Applicable Legislation	6
4.3 Planning and Design Phase	11
4.4 Construction Phase	12
4.5 Operation and Maintenance Phase	22
4.6 Decommissioning Phase	23
5. CONCLUSION	23

1. INTRODUCTION

The Oshakati Town Council, hereinafter referred to as the proponent intends to undertake the following activities:

- **Subdivision of Erf 1697, Oshakati North Extension 8 into Erf A, and the Remainder**
- **Permanent Closure of Erf A as a Public Open Space**
- **Rezoning of Erf A from Public Open Space to “Single Residential”**

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).

An Environmental Management Plan (EMP) represents a central outcome of the EIA process, as it brings together all proposed mitigation and monitoring measures, outlines when they should be carried out, and specifies who is responsible for each action. This EMP sets out the required mitigation and monitoring interventions for the various phases of the development.

- a) **Planning and Design** – this phase precedes construction and involves the essential legislative and administrative processes required for the preparation of erven, alongside the development of engineering designs. It also includes the preparation of construction tender documentation;
- b) **Construction** – this phase covers the period in which the proponent, having completed the required legislative and administrative steps, appoints a contractor to undertake the development and related construction activities, including any additional works required within the development area;
- c) **Operation and Maintenance** – this phase refers to the period during which the facility and its associated infrastructure are fully operational and subject to ongoing maintenance.

The decommissioning of these developments is not envisaged however in the event that this should be considered some recommendations have been outlined in Table 7.

2. PROPOSED DEVELOPMENT

Oshakati, like many urban centres in Namibia, continues to navigate challenges related to land administration and the orderly delivery of serviced residential land. Erf 1697, Oshakati North Extension 8 currently accommodates an existing homestead that has been established on a portion of the property over time. The proposed subdivision of Erf 1697 into Erf A and the Remainder, together with the permanent closure of Erf A as a Public Open Space and its subsequent rezoning to “Single Residential”, seeks to formalise this existing land-use situation.

Formalisation is essential both for effective urban management and for ensuring that long-standing occupants gain secure tenure. By enabling the occupant to purchase the newly created erf from Council and have it zoned for lawful residential use, the application directly supports improved land governance, enhances property rights, and aligns the current use with the Town Planning Scheme. Although Erf 1697 is designated as Public Open Space, this portion has never functioned as accessible communal land due to the presence of the homestead. The proposed actions therefore regularise land-use patterns, support controlled neighbourhood development, and contribute to the broader municipal objective of ensuring that land within Oshakati North Extension 8 is used efficiently, transparently, and in accordance with approved planning frameworks. A locality map is provided below (Figure 1).

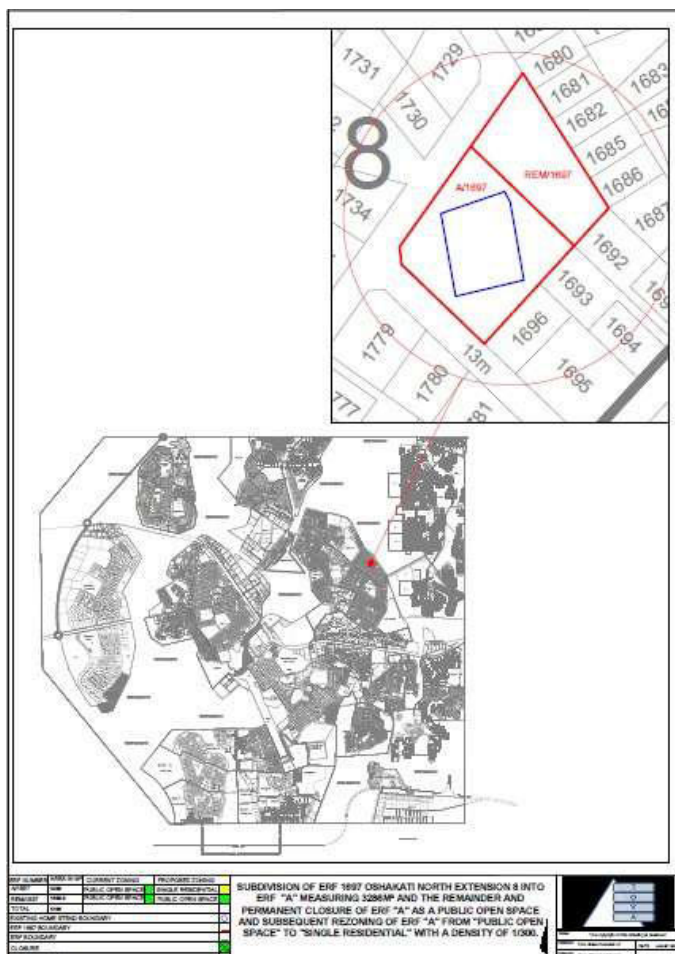


Figure 1: Locality Map of Erf 1697, Oshakati Extension 7

2.1 Subdivision

Erf 1697, measuring approximately 5,186 m², is proposed to be subdivided into two portions: Erf “A” and the Remainder. Erf “A” will measure 3286.0 m², while the Remainder will retain a size of 1899.9 m². The subdivision is intended to formalise the existing homestead and facilitate its purchase by the owner.

Table 1: Proposed Subdivision

Erf No.	Size (m ²)	Current Zoning	Proposed Zoning
Erf A	3286	Public Open Space	Single Residential
RE/1697	1900	Public Open Space	Public Open Space
Total	5186		

2.2 Proposed Permanent Closure and Rezoning

The proposed subdivision of Erf 1697 will result in Erf A, being permanently closed as a “Public Open Space” being rezoned from Public Open Space to Single Residential with a density of 1:300. This rezoning will align the use of the property to the stipulations of the Oshakati Zoning Scheme. The change in zoning reflects the actual land use and ensures that the erf is legally aligned with its intended purpose as a residential property. The remainder of Erf 1697, will retain its Public Open Space zoning. This portion will continue to provide public open space functions.

3. ROLES AND RESPONSIBILITIES

The proponent, Oshakati Town Council, holds overall responsibility for ensuring that the EMP is implemented throughout the project's entire life cycle, from the planning and design stage through to eventual decommissioning, should this become necessary in the future. As the project advances, specific duties will be delegated accordingly. The effective execution of the EMP will therefore depend on the roles fulfilled by the following key individuals:

- Proponent's Representative;
- Environmental Control Officer; and
- Contractor (Construction and Operations and Maintenance)

3.1 Proponent's Representative

The proponent is required to appoint a designated member of staff to oversee all aspects of the development across its various phases, including the management of any outsourced contractual work. This individual, referred to in the EMP as the Proponent's Representative (PR), may be appointed for the full duration of the project or replaced at different stages, such as having one PR for construction and another for the operation and maintenance phase. The responsibilities of the PR include:

Table 2: Responsibilities of PR

Responsibility	Project Phase
Making sure that the necessary approvals and permissions laid out in Table 3 are obtained/adhered to.	Throughout the lifecycle of the proposed development.
Monitoring the implementation of the EMP monthly.	During Construction as well as during Operation and maintenance.
Suspending/evicting individuals and/or equipment not complying with the EMP	During Construction as well as during Operation and maintenance.
Issuing fines for contravening EMP provisions	During Construction as well as during Operation and maintenance.

3.2 Environmental Control Officer

The PR must appoint an independent external consultant to oversee the on-site implementation of the EMP during both the construction and the operation and maintenance phases. This consultant, referred to in the EMP as the Environmental Control Officer (ECO), may be retained for the full duration of the project or replaced between phases, depending on the preference of the PR or the proponent. The ECO will be responsible for the following functions during the construction and the operation and maintenance phases:

- Managing and facilitating communication between the proponent, the PR, contractors, and Interested and Affected Parties (I&APs) regarding all matters related to the EMP.
- Conducting regular site inspections, recommended at least once per week, across all construction and infrastructure maintenance areas to assess and audit compliance with the EMP.
- Supporting the contractor in identifying and implementing practical solutions to issues arising from EMP requirements.
- Advising the PR on the removal of any personnel or equipment that fail to comply with the provisions of the EMP.
- Providing recommendations to the PR on the issuing of fines in cases where the EMP is contravened.
- Carrying out an annual review and bi-annual audit of the EMP, and advising on necessary amendments or additions to strengthen the document.

3.3 Contractor

Contractors appointed by the proponent assume direct responsibility for implementing all provisions set out in the relevant sections of this EMP. They are also accountable for ensuring that any subcontractors engaged for specific tasks comply with the applicable EMP requirements. Table 5(Construction phase management actions) outlines the responsibilities of contractors during the construction phase, while Table 6 (Operation and maintenance phase management actions) applies to those appointed for the operation and maintenance phase. To support effective environmental management, these EMP provisions must be incorporated into all contracts relating to outsourced construction, operational, and maintenance activities. The tables presented in the following chapter (Chapter 4) provide detailed management measures aligned with the roles and responsibilities described above.

4. MANAGEMENT ACTIONS

The purpose of the management actions outlined in this chapter is to prevent potential impacts wherever feasible, and, where avoidance is not possible, to minimise their significance through appropriate mitigation measures. The tables that follow set out the recommended actions required to manage the impacts identified in the scoping-level Environmental Assessment for these developments. For clarity and effective implementation, the management actions are arranged according to the relevant project phase.

- Applicable legislation (Table 3);
- Construction phase management actions (Table 5);
- Operation and maintenance phase management actions (Table 6); and
- Decommissioning phase management actions (Table 7).
- The proponent is expected to review these commitments thoroughly and formally acknowledge their responsibility for implementing the specific management actions set out in the tables below.

4.1 Assumptions and Limitations

This EMP has been prepared with consideration of the following assumptions and limitations:

- The EMP is based on the scoping-level Environmental Assessment (EA) undertaken for the proposed development. Thavira cannot be held liable for any consequences arising from alterations to the approved layout.
- It is assumed that most construction labourers will be recruited from within the Oshakati townlands, and that any migrant workers, where applicable, will be accommodated in existing facilities within Oshakati.

4.2 Applicable Legislation

Legal provisions that have relevance to various aspects of these developments are listed in Table 3 below.

Table 3: Legislation applicable to 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	Sustainable development should be at the forefront of this development.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	biological diversity” and sustainable use of the country’s natural resources.	
Environmental Management Act No. 7 of 2007 (EMA)	Section 2 outlines the objective of the Act and the means to achieve that. Section 3 details the principle of Environmental Management	The development should be informed by the EMA.
EIA Regulations GN 28, 29, and 30 of EMA (2012)	GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.	The following listed activities are triggered by the proposed development: Activity 10.1 (a) Land use and Development Activities
Convention on Biological Diversity (1992)	Article 1 lists the conservation of biological diversity amongst the objectives of the convention.	The project should consider the impact it will have on the biodiversity of the area.
Draft Procedures and Guidelines for conducting EIAs and compiling EMPs (2008)	Part 1, Stage 8 of the guidelines states that if a proposal is likely to affect people, certain guidelines should be considered by the proponent in the scoping process.	The EA process should incorporate the aspects outlined in the guidelines.
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 construction and operation of the development.
The Ministry of Environment and	MET has recently developed a policy on HIV and AIDS. In	The proponent and its contractor must adhere to

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Tourism (MET) Policy on HIV & AIDS	addition, it has also initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.	the guidelines provided to manage the aspects of HIV/AIDS. Experience with construction projects has shown that a significant risk is created when migrant construction workers interact with local communities.
Urban and Regional Planning Act No 5 of 2018	To consolidate the laws relating to urban and regional planning; to provide for a legal framework for spatial planning in Namibia; to provide for principles and standards of spatial planning; to establish the urban and regional planning board; to decentralise certain matters relating to spatial planning; to provide for the preparation, approval and review of the national spatial development framework, regional structure plans and urban structure plans; to provide for the preparation, approval, review and amendment of zoning schemes; to provide for the establishment of townships; to provide for the alteration of boundaries of approved townships, to provide for the disestablishment of approved townships; to provide for the change of name of approved townships; to provide for the subdivision and consolidation of land; to provide for the alteration, suspension and deletion of conditions relating to land; and to provide for incidental matters.	The proposed development must adhere to the provisions regarding the subdivision and rezoning of land.
Local Authorities Act No. 23 of 1992	The Local Authorities Act prescribes the manner in which a	The development must comply with provisions of

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	town or municipality should be managed by the Town or Municipal Council.	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	<ul style="list-style-type: none"> - Section 3.1 deals with width of proclaimed roads and road reserve boundaries - Section 27.1 is concerned with the control of traffic on urban trunk and main roads - Section 36.1 regulates rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads - Section 37.1 deals with Infringements and obstructions on and interference with proclaimed roads. 	Adhere to all applicable provisions of the Roads Ordinance.
Public and Environmental Health Act of 2015	This Act (GG 5740) provides a framework for a structured uniform public and environmental health system in Namibia. It covers notification, prevention and control of diseases and sexually transmitted infections; maternal, ante-natal and neo-natal care; water and	Contractors and users of the proposed development are to comply with these legal requirements.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	food supplies; infant nutrition; wastemanagement; health nuisances; public and environmental health planning and reporting. It repeals the Public Health Act 36 of 1919 (SA GG 979).	
Nature Conservation Ordinance no. 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants must be managed within the legal confines.
Water Quality Guidelines for Drinking Water and Wastewater Treatment	Details specific quantities in terms of water quality determinants, which wastewater should be treated to before being discharged into the environment.	These guidelines are to be applied when dealing with water and waste treatment
Environmental Assessment Policy of Namibia (1995)	The Policy seeks to ensure that the environmental consequences of development projects and policies are considered, understood and incorporated into the planning process, and that the term ENVIRONMENT is broadly interpreted to include biophysical, social, economic, cultural, historical and political components.	This EIA considers this term of Environment.
Water Resources Management Act No. 11 of 2013	Part 12 deals with the control and protection of groundwater Part 13 deals with water pollution Control	The pollution of water resources should be avoided during construction and operation of the development. Should water need to be abstracted, a water abstraction permit will be required from the Ministry of Water, Agriculture and Forestry.
Forest Act 12 of 2001 and Forest Regulations of 2015	To provide for the establishment of a Forestry Council and the appointment of certain officials; to consolidate the laws relating to	Protected tree and plant species as per the Forest Act No 12 of 2001 and Forest Regulations of 2015 may not

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	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.	be removed without a permit from the Ministry of Agriculture, Water and Forestry.
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.

4.3 Planning and Design Phase

The CR should ensure that the management actions detailed below should be adhered to

during the period before the construction for the proposed development starts.

Table 4: Planning and design management actions

Aspect	Management Actions
Visual Impacts	<ul style="list-style-type: none"> - 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).

4.4 Construction Phase

The management actions listed in Table 4-2 apply during the construction phase. This table may be used as a guide when developing EMPs for other construction activities within these development areas.

Table 5: Construction phase management actions

Environmental Feature	Impact	Management Actions	Responsible Person
EMP training	Lack of EMP awareness and the implications thereof.	<p>All construction workers are to undergo EMP training that should include as a minimum the following:</p> <ul style="list-style-type: none"> • Explanation of the importance of complying with the EMP. • Discussion of the potential environmental impacts of construction activities. • Employees' roles and responsibilities, including emergency preparedness. • Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities. 	Contractor, PR
Conservation of vegetation	Loss of biodiversity	<ul style="list-style-type: none"> • Prevent the destruction of protected and endemic plant 	Contractor

		<p>species.</p> <ul style="list-style-type: none"> • Prevent contractors from collecting wood, veld food, etc. during the construction phase. • Recommend the planting of local indigenous species of flora as part of the landscaping as these species would require less maintenance than exotic species. • Prevent the introduction of potentially invasive alien ornamental plant species such as; Lantana, Opuntia, Prosopis, Tecoma, etc.; as part of the landscaping as these species could infest the area further over time. • Protected trees and plants are not to be removed without a valid permit from the local Department of Forestry. 	
Lay-down areas and materials camp	Loss of biodiversity	<p>Suitable locations for the contractors lay-down areas and materials camp should be identified with the assistance of the PR and the following should be considered in selecting these sites:</p> <ul style="list-style-type: none"> • The areas designated for the services infrastructure should be used as far possible. • Second option should be degraded land. • Avoid sensitive areas (e.g. rivers/drainage lines). 	Contractor and PR
Hazardous waste	Contamination of surface and groundwater sources.	<ul style="list-style-type: none"> • All heavy construction vehicles and equipment on site should be provided with a drip tray. • All heavy construction vehicles should be maintained regularly to prevent oil leakages. • Maintenance and washing of construction vehicles should take place only at a designated workshop area and should not take place on open soil. 	Contractor

Water, Sewage and grey water	Contamination of surface and groundwater sources and water wasting	<ul style="list-style-type: none"> • The wash water (grey water) collected from the cleaning of equipment on-site should not be left standing for long periods of time as this promotes parasite and bacterial proliferation. • Grey water should be recycled: <ul style="list-style-type: none"> o Used for dust suppression; o Used to water a vegetable garden, or to support a small nursery; o Used (reused) to clean equipment. • Grey water that is not recycled should be removed on a regular basis. • No dumping of waste products of any kind in or in close proximity to water bodies. • Heavy construction vehicles should be kept out of any 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 in Oshakati. 	Contractor
------------------------------	--	--	------------

		<ul style="list-style-type: none"> • Construction workers should be given ablution facilities at the construction sites that are located at least 30 m away from any surface water and ground water resources and should be 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. 	
General waste	Visual impact and soil contamination	<ul style="list-style-type: none"> • The construction site should be kept tidy at all times. • All domestic and general construction waste produced on a daily basis should be cleaned and contained daily. • No waste may be buried or burned. • Waste containers (bins) should be emptied regularly and removed from site to a recognised (municipal) waste disposal site. • All recyclable waste needs to be taken to the nearest recycling depot where practical. • A sufficient number of separate bins for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such. • Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter. • No waste may remain on site after the completion of the project. 	Contractor
Topsoil	Loss of topsoil and associated opportunity	<ul style="list-style-type: none"> • When excavations are carried out, topsoil should be stockpiled in a demarcated area. • Stockpiled topsoil should be used 	Contractor

	costs	to rehabilitate post-construction degraded areas and/or other nearby degraded areas if such an area is located a reasonable distance from the stockpile.	
Rehabilitation	Visual impact	<ul style="list-style-type: none"> • Upon completion of the construction phase consultations should be held with the local community/property owner(s) regarding the postconstruction use of remaining excavated areas (if applicable). • In the event that no postconstruction uses are requested, all excavated/degraded areas need to be rehabilitated as follows: <ul style="list-style-type: none"> o Excavated areas may only be backfilled with clean or inert fill. No material of hazardous nature (e.g. sand removed with an oil spill) may be dumped as backfill. o Rehabilitated excavated areas need to match the contours of the existing landscape. o The rehabilitated area should not be higher (or lower) than nearby drainage channels. This ensures the efficiency of revegetation and reduces the chances of potential erosion. o Topsoil is to be spread across excavated areas evenly. o Deep ripping of areas to be rehabilitated is required, not just simple scarification, so as to enable rip lines to hold water after heavy rainfall. o Ripping should be done along slopes, not up and down a slope, which could lead to enhanced erosion. 	Contractor, PR
Road safety	Injury or loss of life	<ul style="list-style-type: none"> • Demarcate roads to be used by construction vehicles clearly • Off-road driving should not be 	Contractor

		<p>allowed.</p> <ul style="list-style-type: none"> • All vehicles that transport materials to and from the site must be roadworthy. • Drivers that transport materials should have a valid driver's license and should adhere to all traffic rules. • Loads upon vehicles should be properly secured to avoid items falling off the vehicle. 	
Safety around work sites	Injury or loss of life	<ul style="list-style-type: none"> • Excavations should be left open for the shortest time possible. • Excavate short lengths of trenches and box areas for services or foundations in a manner that will not leave the trench unattended for more than 24 hours. • Demarcate excavated areas and topsoil stockpiles with danger tape. • All building materials and equipment are to be stored only within set out and demarcated work areas. • Only road construction personnel will be allowed within these work areas. • Comply with all waste related management actions stated above in this table. 	Contractor
Ablutions	Noncompliance with Health and Safety Regulations	<ul style="list-style-type: none"> • Separate toilets should be available for men and women and should clearly be indicated as such. • Portable toilets (i.e. easily transportable) should be available at every construction site: <ul style="list-style-type: none"> o 1 toilet for every 15 females. o 1 toilet for every 30 males. o Sewage needs to be removed on a regular basis to an approved (municipal) sewage disposal site in Oshakati. o Alternatively, sewage may be pumped into sealable containers and stored until it can be removed. 	Contractor

		<ul style="list-style-type: none"> Workers responsible for cleaning the toilets should be provided with environmentally friendly detergents, latex gloves and masks. 	
Open fires	Injury or loss of life	<ul style="list-style-type: none"> No open fires may be made anywhere on site. 	Contractor
General health and safety	Injury or loss of life	<ul style="list-style-type: none"> A fully stocked first aid kit should permanently be available on-site as well as an adequately trained member of staff capable of administering first aid. All workers should have access to the relevant personal protective equipment (PPE). Sufficient potable water reserves should be available to workers at all times. No person should be allowed to smoke close to fuel storage facilities or portable toilets (if toilets are chemical toilets – the chemicals are flammable). No workers should be allowed to drink alcohol during work hours. No workers should be allowed on site if under the influence of alcohol. Building rubble and domestic waste should be stored in skips. 	Contractor
Dust	Nuisance and health impacts	<ul style="list-style-type: none"> A watering truck should be used on gravel roads with the heaviest vehicle movement especially during dry and windy conditions. However, due consideration should be given to water restrictions during times of drought. The use of waterless dust suppression means (e.g. lignosulphonate products such as Dustex) should be considered. Cover any stockpiles with plastic to minimise windblown dust. Dust protection masks should be provided to workers if they 	Contractor

		complain about dust.	
Noise	Nuisance impacts	Work hours should be restricted to between 08h00 and 17h00 where construction involving the use of heavy equipment, power tools and the movement of heavy vehicles is less than 500 m from residential areas. If an exception to this provision is required, all residents within the 500 m radius should be given 1 week's written notice.	Contractor
Recruitment of labourers	Negative conflict regarding recruitment	<p>The Contractor should adhere to the below provision as a minimum for the recruitment of labour:</p> <ul style="list-style-type: none"> • Adhere to the legal provisions in the Labour Act for the recruitment of labour (target percentages for gender balance, optimal use of local labour and SME's, etc.). • Recruitment should not take place at construction sites. • Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside these agreed upon procedures. • Contractors should give preference in terms of recruitment of subcontractors and individual labourers to those who are qualified and from the Oshakati project area and only then look to surrounding towns. • Clearly explain to all jobseekers the terms and conditions of their respective employment contracts (e.g. period of employment etc.) – make use of interpreters where necessary. 	Contractor
Communication plan	Negative conflict with I&APs	The Contractor or proponent should draft a Communication Plan, which should outline as a minimum the following:	Contractor

		<ul style="list-style-type: none"> • How Interested and Affected Parties (I&APs), who require ongoing communication for the duration of the construction period, will be identified and recorded and who will manage and update these records. • How these I&APs will be consulted on an ongoing basis. • Make provision for grievance mechanisms – i.e. how concerns can be lodged/ recorded and how feedback will be delivered as well as further steps of arbitration in the event that feedback is deemed unsatisfactory. 	
General communication	Negative conflict with I&APs	<ul style="list-style-type: none"> • The PR must appoint an ECO to liaise between the Contractor, I&APs, Developer. • The Contractor shall at every monthly site meeting report on the status of the implementation of all provisions of the EMP. • The Contractor should implement the EMP awareness training as stipulated above in this table. • The Contractor must list the I&APs of the project and their contact details with whom ongoing communication would be required for the duration of the contract. This list, together with the Communication Plan must be agreed upon and given to the PR before construction commences. • The Communication Plan, once agreed upon by the Developer, shall be legally binding. • All communication with the I&APs must take place through the ECO. • A copy of the EMP must be available at the site office and should be accessible to all I&APs. • Key representatives from the abovementioned list need to be 	Contractor, ECO, PR

		<p>invited to attend relevant monthly site meetings to raise any concerns and issues regarding project progress.</p> <ul style="list-style-type: none"> • The Contractor should liaise with the Developer regarding all issues related to community consultation and negotiation before construction commences. • A procedure should be put in place to ensure that concerns raised have been followed-up and addressed. • All people on the I&APs list should be informed about the availability of the complaints register and associated grievance mechanisms in writing by the PR prior to the commencement of construction activities. 	
Archaeology	Loss of heritage resources	<ul style="list-style-type: none"> • Should a heritage site or archaeological site be uncovered or discovered during the construction phase of the project, a “chance find” procedure should be applied in the order they appear below: <ul style="list-style-type: none"> o If operating machinery or equipment, stop work; o Demarcate the site with danger tape; o Determine GPS position if possible; o Report findings to the construction foreman; o Report findings, site location and actions taken to superintendent; o Cease any works in immediate vicinity; o Visit site and determine whether work can proceed without damage to findings; o Determine and demarcate exclusion boundary; o Site location and details to be added to the project’s Geographic Information System (GIS) for field confirmation by archaeologist; 	Contractor

		<ul style="list-style-type: none"> o Inspect site and confirm addition to project GIS; o Advise the National Heritage Council of Namibia (NHCN) and request written permission to remove findings from work area; and o Recovery, packaging and labelling of findings for transfer to National Museum. • Should human remains be found, the following actions will be required: <ul style="list-style-type: none"> o Apply the chance find procedure as described above; o Schedule a field inspection with an archaeologist to confirm that remains are human; o Advise and liaise with the NHCN and Police; and o Remains will be recovered and removed either to the National Museum or the National Forensic Laboratory. 	
--	--	---	--

4.5 Operation and Maintenance Phase

The management actions included in Table 6 below apply during the operation and maintenance phase of these developments.

Table 6: Operation and maintenance phase management actions

Environmental Feature	Impact	Management Actions	Responsible Person
EMP training	Lack of EMP awareness and the implications thereof	All contractors appointed for maintenance work must ensure that all personnel are aware of necessary health, safety and environmental considerations applicable to their respective work.	Contractor
Water	Surface and groundwater contamination	Ensure that surface run-off water accumulating on-site are channeled and captured through a proper storm water management system to be	Proponent, Contractor,

		treated in an appropriate manner before disposal into the environment.	
Aesthetics	Visual impacts	<p>The proponent should consult with a view to incorporate the relevant local/national/international development guidelines which addresses the following:</p> <ul style="list-style-type: none"> • The incorporation of indigenous vegetation into development. • To mark the area with appropriate road warning signs (e.g. the road curves to the left/right) 	Proponent
Waste	Pollution	<ul style="list-style-type: none"> • Waste is to be disposed of as per the municipal waste disposal management regulations. • No waste may be buried or burned on site. • The subject site is to be kept tidy at all times. 	Proponent

4.6 Decommissioning Phase

Decommissioning of the development is not anticipated, as the proposed infrastructure is intended to serve as a permanent installation. However, should decommissioning occur at any point in the future, the following management actions will apply.

Table 7: Decommissioning phase management actions

Environmental Feature	Management Actions
Decommissioning activity	Many of the mitigation measures prescribed for the construction activities for these developments (Table 5 above) would be applicable to some of the decommissioning activities. These should be adhered to where applicable.

5. CONCLUSION

The management actions set out in this report are intended to support the avoidance, control, and mitigation of potential environmental impacts arising from the proposed activities. Provided that the measures outlined in this EMP are properly implemented and monitored, Thavira Enterprises is confident that the risks identified in the Scoping Report can be reduced to acceptable levels.