

ENVIRONMENTAL MANAGEMENT PLAN

FOR THE
PERMANENT CLOSURE OF ERF 326, KAISOSI AS A "PUBLIC OPEN SPACE" IN
RUNDU TOWN, KAVANGO EAST REGION.



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LIST OF ABBREVIATIONS

TERMS	DEFINITION
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
DEA	Department of Environmental Affairs
PPPPs	Projects, Plans, Programs and Policies
NDC	Namibia Development Consultants
SANS	South African National Standards
I&APs	Interested and Affected Parties
PM	Particulate Matter
NPC	Nghivelwa Planning Consultants
NHE	National Housing Enterprise

GRN	Government of the Republic of Namibia
MEFT	Ministry of Environment, Forestry and Tourism

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1. INTRODUCTION AND BACKGROUND

The National Housing Enterprise has constructed a house on Erf 326, Kaisosi and subsequently allocated and sold the property to a private individual who is a beneficiary of low cost housing in Rundu Town, Okavango East Region. Erf 326, Kaisosi currently measure 980m² in extent and is zoned for “Public Open Space” purposes. In order for the transfer of Erf 326, Kaisosi to be finalized, the statutory town planning process of permanent closure of Erf 326 as a “Public Open Space” and subsequent rezoning to “Residential” should first be completed and any permanent closure of a public open space requires an Environmental Clearance Certificate.

Nghivelwa Planning Consultants, a Town and Regional Planning and Environmental Management Consultancy firm has been appointed to conduct an Environmental Impact Assessment and Environmental Management Plan (EMP) for the proposed permanent closure of Erf 326, Kaisosi as a “Public Open Space” and subsequent rezoning to “Residential”. The Environmental Impact Assessment has been conducted to meet the requirements of the Namibia’s Environmental Management Act (No. 7 of 2007).

Erf 326, Kaisosi is owned by the National Housing Enterprise and currently measure ±980m² in extent. It is situated in Kaisosi Proper on the eastern side of Rundu Town, Kavango East Region as shown in Figure 1 below. There is currently a house that is constructed on Erf 326, Kaisosi and is occupied by the beneficiary of the property. The GPS coordinates of the location of the proposed project site are: 17° 54.377'S, 19° 47.974'E.

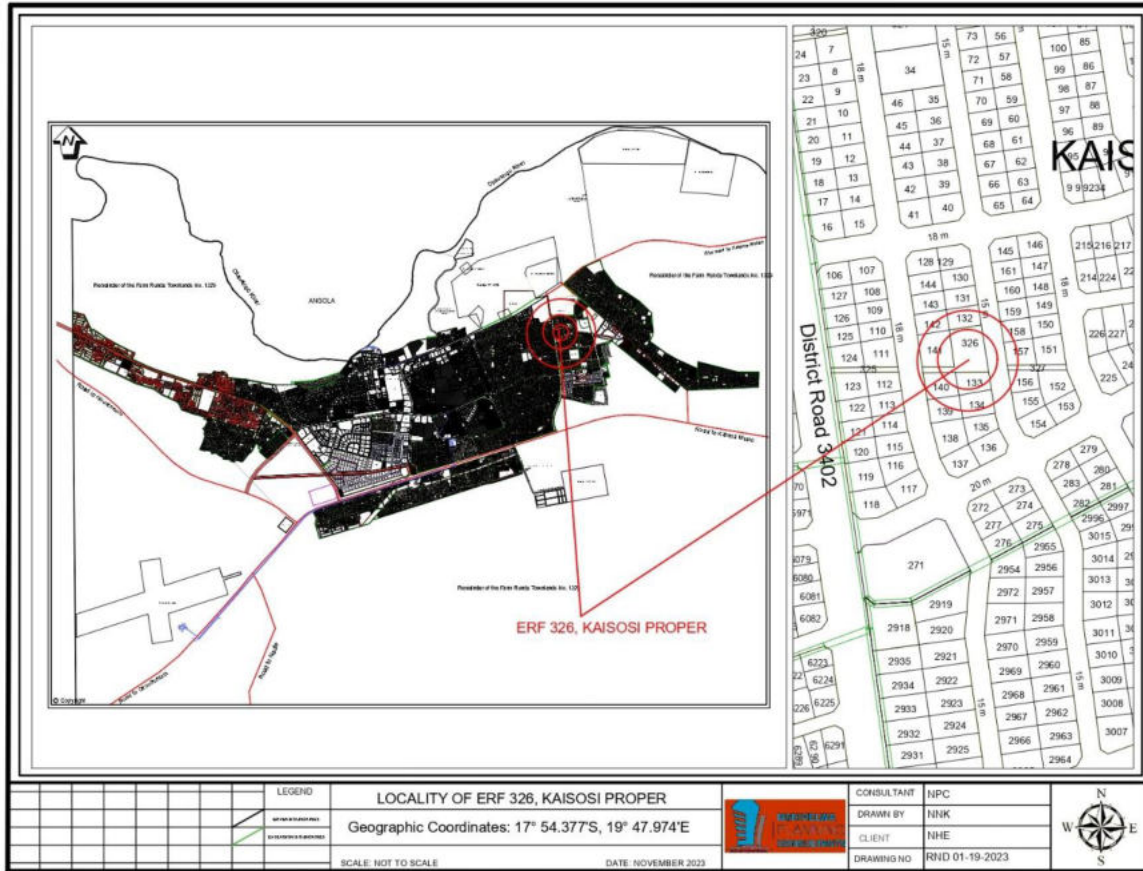


Figure 1: Locality Plan

The purpose of the EMP report is to proactively address potential problems before they occur. This will ensure that unnecessary damage to the environment during the construction phase is avoided. Moreover, mitigation measures will be implemented to minimize environmental degradation.

2. PROJECT DESCRIPTION

The proposed activity is for the permanent closure of Erf 326, Kaisosi as a “Public Open Space” and subsequent rezoning to “Residential” for the formalization of a house already constructed on the property. The activity does not involve the construction of bulk services such as sewer water reticulation, electricity supply, streets, Water and constructions of a new dwelling.

This EMP includes the maintenance of the site during the operational phase such as sewer reticulation, waste disposal and noise pollution control as well as the maintenance of the afore-

mentioned services. The bulk municipal services have already been provided for Erf 326, Kaisosi and are already being maintained by the Rundu Town Council. The land is currently used for residential purposes and no further construction of municipal bulk services or residential buildings will be constructed after the EIA is concluded.

3. SCOPE

The framework within which this Environmental Management Plan Report (EMP) is developed includes identifying various activities, their occurrence in the construction process and the likely impacts that are associated with those activities. It is therefore necessary to subcategorize the EMP report into Pre-Construction, Construction and Post-Construction activities.

The first category of the EMP report that deals with the pre-construction activities identifies the impacts and mitigation measures that will need to be employed before the construction of the proposed project commences. However, this project entails the closure of a public open space to formalize a house that is already constructed on the property. Thus, this stage will not be covered in this EMP.

The second category of the EMP report that deals with the construction activities and the mitigation measures that will need to be implemented to reduce the severity of the impacts the proposed development may have on the surrounding environment. However, this project entails the closure of a public open space to formalize a house that is already constructed on the property. Thus, this stage will not be covered in this EMP.

Therefore, this EMP will only cover the third category of the EMP that addresses the rehabilitation measures that will need to be implemented once the construction is completed, to ensure that the impact of the proposed rehabilitation on the environment is minimized. Furthermore, it will discuss activities that need to be undertaken to ensure that no environmental degradation occurs as a result of this project.

The Environmental Impact Assessment study report includes an impact assessment and their mitigation measures of the three phases of the proposed project after the following was conducted:

- Field investigations (site assessment),
- Identifying and involving all stakeholders in the Environmental Impact Assessment process by expressing their views and concerns on the proposed project;
- Identify all potential significant adverse environmental and social impacts of the project and recommend mitigation measures to be well described in the Environmental Monitoring Plan (EMP);
- Coordination with the proponent, regarding the requirements of law of Namibia’s Environmental Management Act (No. 7 of 2007) and other relevant policies and administrative framework.
- Consultation of the Terms of Reference for the Environmental Impact Assessment study.
- A review of the policy, and relevant legislations
- Provision of overall assessment information of the social and biophysical environments of the affected areas by the proposed development.

The Environmental Management Plan (EMP) aims to take a pro-active route by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigating measures might be included if necessary.

4. POLICY AND OTHER RELEVANT LEGISLATIONS

The following legislation is used to guide the permanent closure of public open space processes in Namibia.

SUBJECT	INSTRUMENTS AND CONTENT	APPLICATION TO THE PROJECT
The Constitution of the Republic of Namibia	General human rights – eliminates discrimination of any kind	Ensure these principles are enshrined in the documentation of the

	The right to a safe and healthy environment Affords protection to biodiversity	project
Environmental Management Act EMA (No 7 of 2007)	Requires that projects with significant environmental impact are subject to an environmental assessment process (Section 27). Details principles which are to guide all EAs.	Ensure that the closure of the public open space is carried out within the parameters of the Act.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 487)	Details requirements for public consultation within a given environmental assessment process (GN 30 S21). Details the requirements for what should be included in a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).	Ensure that the permanent closure of the public open space aligns with the EIA regulations.
Forestry Act No 27 of 2004	Provision for the protection of various plant species	Some species that occur in the area are protected under the Forestry Act and a permit is therefore required to remove the species
Hazardous Substances Ordinance 14 of 1974:	Control of substances which may cause injury or ill-health or death of human beings because their toxic, corrosive, irritant, strongly sensitizing or flammable nature	The waste generated on site and at the campsite should be suitably categorised/classified and disposed of properly and in accordance with the Measures outlined in the Ordinance.

The Nature Conservation Ordinance (No. 4 of 1975)	Prohibits disturbance or destruction of protected birds without a permit. Requires a permit for picking (the definition of “picking” includes damage or destroy) protected plants without a permit	Protected plants will have to be identified during the planning phase of the project. In case there is an intention to remove protected species, then permits will be required.
Forestry Act 12 of 2001 Nature Conservation Ordinance 4 of 1975	Prohibits the removal of any vegetation within 100 m from a watercourse (Forestry Act S22(1)). Prohibits the removal of and transport of various protected plant species.	Even though the Directorate of Forestry has no jurisdiction within townlands, these provisions will be used as a guideline for conservation of vegetation.
Convention on Biological Diversity, 1992	Protection of biodiversity of Namibia	Conservation-worthy species not to be removed if not absolutely necessary.
Water Resources Management Act 11 of 2013	The Act provides for the management, protection, development, use and conservation of water Resources; to provide for the regulation and monitoring of water services.	Obligation not to pollute surface water bodies
National Heritage Act 27 of 2004	Section 48(1) states that “A person may apply to the [National Heritage] Council [NHC] for a permit to carry out works or activities in relation to a protected place or protected object	Any heritage resources (e.g. human remains etc.) discovered during construction requires a permit from the National Heritage Council for relocation
Labour Act 11 of 2007	Details requirements regarding minimum wage and working conditions (S39-47).	Employment and work relations

Health and Safety Regulations GN 156/1997 (GG 1617	Details various requirements regarding health and safety of labourers.	Protection of human health, avoid development at areas that can impact on human health.
Public Health Act 36 of 1919	Section 119 states that “no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”	Ensure that all contractors involved during the construction, operation and maintenance of the proposed project comply with the provisions of these legal instrument
Water Resources Management Act 11 of 2013	Prohibits the pollution of underground and surface water bodies (S23(1)). Liability of clean-up costs after closure/ abandonment of an activity (S23(2)).	The protection of ground and surface water resources should be a priority. The main threats will most likely be concrete and hydrocarbon spills during construction and hydrocarbon spills during operation and maintenance.
Urban and Regional Planning Act no 5 of 2018	Details the functions of the Urban and Regional Planning Board including their consideration when assessing an application for the rezoning and closure of a public open space (S3)	The proposed layout and land use should be informed by environmental factors such as water supply, soil etc. as laid out in Section 3 of the act.
Local Authorities Act no 23 of 1992	Details the procedures to be followed for the permanent closure of public open spaces in Local Authority Areas.	The public must be informed on the permanent closure of public open spaces.

Table 1: Relevant legislation

5. MANAGEMENT PRINCIPLES

These guideline principles will form the basis for environmental management on site. Should these principles require modification or additions during the project this should be done at the discretion of the responsible person, who will ensure that any modifications are communicated, explained to and discussed with all affected parties (i.e. the National Housing Enterprise, Rundu Town Council, Nghivelwa Planning Consultant, other service providers, and any affected party who requests this information).

The environmental operational procedures and environmental issues are identified and managed, under different phases of the project. The different phases are:

- Pre-construction;
- Construction Phase;
- Operational Phase; and
- Decommissioning Phase

However, this project entails the formalization of a house already constructed on a public open space and will only focus on the operational and possible decommissioning phase of the EMP.

a) Environmental Issues to be managed

i) Operational Phases

The National Housing Enterprise will ensure that the following actions are implemented during the operational phase by establishing accountability and responsibility between the different role players.

b) Consultation with Interested and Affected parties (IAPs)

Establish an open communication channel between the developer (National Housing Enterprise) and IAPs such that any queries, complaints or suggestions can be dealt with quickly and by the appropriate person(s).

6. ROLES AND RESPONSIBILITIES

This section describes the roles and responsibilities of the key stakeholders involved in the development, implementation and review of the EMP.

Competent Authority

The Department of Environmental Affairs: Ministry of Environment and Tourism is responsible for the review of the EMP documents it is the competent authority.

National Housing Enterprise (Applicant)

The role of the applicant is as follows:

- The National Housing Enterprise as the applicant, should hire suitably qualified person(s) and assign them with the responsibility to ensure implementation of the EMP, and should:
- Know the contents and implications of the EIA and monitor the implementation of EIA findings using the EMP.
- Revise the EMP as required and inform the relevant parties of the changes.
- The applicant should review reports regarding the implementation of the EMP and ensure that the EMP is being implemented in a satisfactory manner.
- Give warning and impose fines and penalties on the Contractor if the Contractor neglects to implement the EMP satisfactorily.
- Protect the environment and rehabilitate the environment as prescribed in the EIA.

National Housing Enterprise (Project Manager)

The Applicant will appoint the Project Manager. The role of the project manager will be:

- Liaising directly with the relevant authorities with respect to the preparation and implementation of the EMP and meeting the conditions documented in the environmental clearance certificate.
- Bear the overall responsibility for managing the project contractors and ensuring that the environmental management requirements are met.
- Inform the contractors of the EMP and Environmental clearance certificate obligations.
- Approve all decisions regarding environmental procedures and protocols that must be followed.
- Have the authority to stop any construction in contravention with the EMP and RoD.
- In consultation with the Environmental Control Officer (ECO) has the authority to issue fines for transgressions of basic conduct rules and/or contravention of the EMP.
- Maintain open and direct lines of communication between the proponent, Contractor and Interested and Affected Parties (I&APs) with regards to environmental matters.
- Attend regular site meetings and inspections where required.

7. PHASES OF THE PROJECT

The Operational Phase

The pro-active measures taken during the planning and construction phases will minimize the potential environmental impacts emanating during the operational phase. This, in turn, will minimise the risk and reduce the monitoring effort, but it does not make monitoring obsolete.

Impacts	Description	Mitigation	Monitoring	Responsible Body
Storm water	Storm water usually runs off the area and flow into the water bodies without the need for treatment. This can pollute the water bodies like creeks, lakes and rivers and have adverse effects on their chemical as well as biological make up of natural water bodies. Storm water drainage and collection must accommodate the storm water during the rainy season.	Storm water drains constructed along the streets in the development be channelled through the natural water courses, excess storm water to be collected for consumption and recreational use. Storm water will be collected through network of storm drains from gardens, parking areas, paved and unpaved areas, and roadways. The storm water drainage system should have the capacity to prevent flooding of the site and surrounding areas.	Strict operational times. Regular inspection. By Engineer (Technical team) and ECO	National Housing Enterprise / Rundu Town Council
Commercialization of the area	This project will contribute to the improvement of the services and infrastructure for the surrounding communities,	Residents to be provided with all the basic amenities and utilities required by the community for them to live a higher quality life style.	Regular inspection by Engineer and ECO	National Housing Enterprise / Rundu Town Council

	as it will provide more social services within the area.	Jobs emanating from the construction and operation of the proposed development will be outsourced to small medium enterprises in the area.		
Improved aesthetic look of the area	The formalization of a house on the proposed site is essential to improve the aesthetics of the area while turning it into an environmentally friendly settlement with improved infrastructure services	<p>Create awareness among the residents about energy conservation and other resources as well as to implement measures to prevent or minimize any adverse effects on the environment.</p> <p>Public open space and recreational erven should be vegetated to look greener and to minimize soil exposure to erosion.</p> <p>Ensure proper and regular maintenance of the area.</p> <p>No illegal dumping of waste should be allowed</p>	Regular visual inspection by EO	National Housing Enterprise / Rundu Town Council

<p>Increased employment opportunities</p>	<p>The formalization of a house will offer employment opportunities through the maintenance of municipal services.</p>	<p>The principles of gender equality, maximizing local employment should be implemented in the provision of jobs.</p> <p>It is recommended to prioritize local people during the recruitment process.</p> <p>The increased investments from private businesses and public sector will see the increase of employment opportunities in the areas and this will also increase the economy of the town.</p> <p>Jobs for maintenance of infrastructure and services will be maintained. These jobs might be made available to existing labour thereby creating long term employment.</p>	<p>Monitored once off by the ELO</p>	<p>Appointed Contractor/ ELO or National Housing Enterprise / Rundu Town Council</p>
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		Jobs for security personnel to patrol the properties will be maintained. Equity and transparency, should be considered when recruiting new people.		
Traffic	Potential impact due to increase in traffic because of the formalization of the residential property.	Sidewalks for pedestrians should be provided along the property. Appropriate road signs and markings should be provided throughout the township. Signs should be provided at intersections particularly at higher order intersections.	Regular inspection By Engineer and EO	National Housing Enterprise / Rundu Town Council
Waste management		During the operations phase, the Rundu Town Council waste management team will service the existing township. Rundu Town Council to develop a formal waste collection strategy and that the waste is to be collected	Regular inspection By EO	Rundu Town Council

		regularly and to be disposed of at an authorized disposal site. Illegal dumping of waste in any form is prohibited.		
Land use	<p>The proposed development will result in a change in land use and it will impact positively on the socio-economic development side as the formalization of land uses in Kaisosi will increase the values of surrounding land uses thus, increasing the economic power in the area.</p> <p>The formalization of residential land uses will also lead to security of land tenure in the area and will increase the wealth of the inhabitants.</p>	<p>The formalized land uses will ensure the conformity of Rundu Zoning Scheme and the land uses on the ground leading to orderly development in the area.</p> <p>The formalized land uses will lead to increased investment from public and private sectors.</p> <p>The formalization of land uses will lead to increased employment opportunities.</p> <p>The formalization of land uses will lead to inhabitants to have security of land tenure.</p>	Monitored by the Project Manager	Rundu Town Council / National Housing Enterprise

8. ENVIRONMENTAL MONITORING PLAN

Environmental monitoring plan is part of the EMP performance assessment and will need to be compiled and submitted as determined by the Environmental Commissioner. The process of monitoring performances against the objectives and documenting all environmental activities is part of internal and external auditing. This will be coordinated by the Environmental Control Officer (ECO) / External Consultant / Suitable qualified in-house resource person. The table below outline the type of information that shall need to be recorded on a regular basis by the Environmental Control Officer (ECO) as part of the monitoring process of the activities and the effects.

Mitigation	Compliance	Follow-up action required	By whom	By When	Completed
Is there an Environmental awareness training programme?					
How many people have been given environmental awareness training?					
Is a copy of the EMP on site?					
How effective is the awareness training?					

Do people understand the contents of the EMP?					
If not, where are the weaknesses?					
Ask 3 people at random various questions about the EMP.					