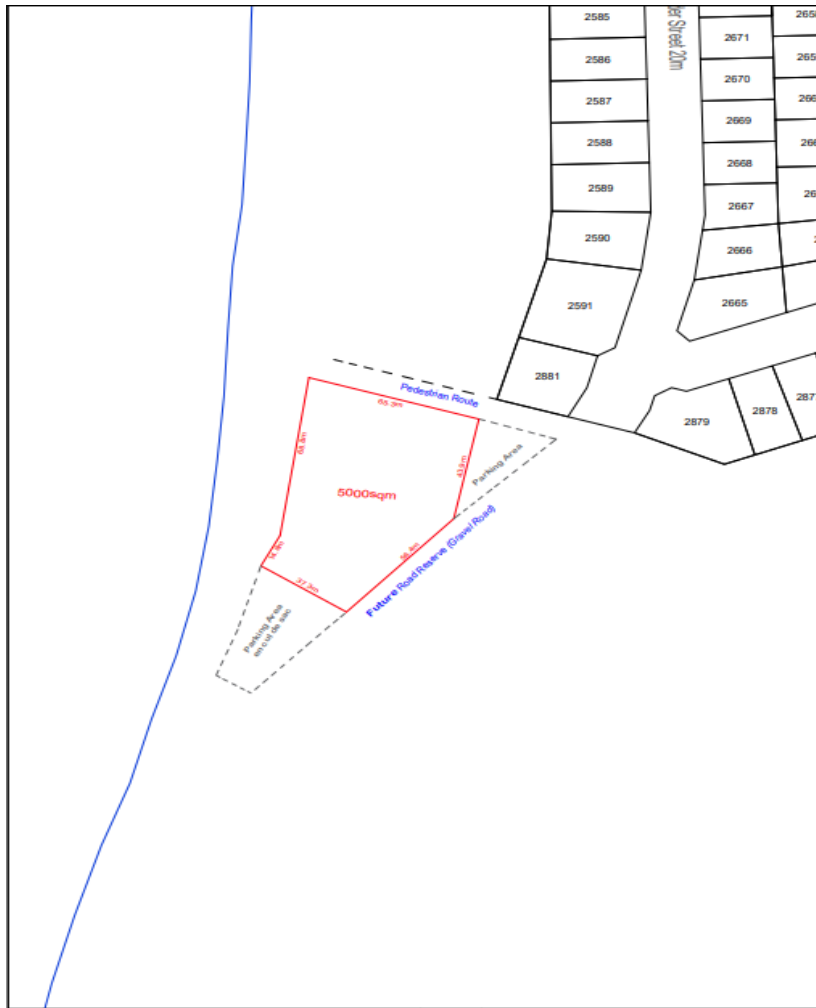


ENVIRONMENTAL MANAGEMENT PLAN

FOR THE PROPOSED RESIDENTIAL PROPERTY DEVELOPMENT ON PORTION 127 HENTIES
BAY TOWNLAND NO. 133 HENTIES BAY TOWNLANDS (MEASURING 5000SQM)



Assessed by:



Proponent:

SX Investments One (Pty) Limited
Farm Kaross #237 Nr Kamanjab,
Namibia

20 April 2021

Title	Environmental Management Plan (EMP) for The Proposed Residential Property Development on Portion 127 Henties Bay Townland No. 133 Henties Bay Townlands (Measuring 5000sqm)
Environmental Practitioner	Nyepez Consultancy cc
Reviewer	Mr. Kluivert Mwanangombe
Client	SX Investments One (Pty) Limited Farm Kaross #237 Nr Kamanjab, Namibia
Status	Final Report
Issue Date	April 20, 2021

TABLE OF CONTENTS

1	INTRODUCTION	4
1.1	PURPOSE OF THE EMP	4
1.1.1	EMP Requirements.....	4
1.1.2	Compliance to the EMP	5
1.1.3	Proponent's Responsibility to the EMP	5
1.1.4	Possible adjustments to the EMP	5
1.1.5	Legal frameworks that are of relevance to this EMP	5
2	PROJECT DESCRIPTION	8
2.1	PROJECT LOCALITY.....	8
2.1.1	Infrastructure.....	9
2.2	IMPACTS ASSOCIATED WITH THE SITE.....	11
2.2.1	Infrastructure development	11
3	ROLE PLAYERS & RESPONSIBILITIES	12
3.1	Roles and Responsibilities.....	12
3.2	Compliance with Requirements	14

1 INTRODUCTION

This document presents the Environmental Management Plan (EMP) to manage the proposed Residential property development on the land zoned undetermined. The proposed location of the development is portion 127 of Henties Bay Townlands No. 133 situated adjacent Henties bay Extension 11 South west of Henties bay townland. The total area size will cover approximately 5000m² excluding the access road. According to the Namibian environmental legislation (Environmental Management Act (No. 7 of 2007)) (EMA) and the EIA Regulations (GN. No. 30 of 2012), an Environmental Management Plan (EMP) is required to obtain an Environmental Clearance Certificate (ECC) from the Ministry of Environment and Tourism (MET) for this type of operation to continue.

NYEPEZ Consultants (NC) has been appointed to develop the requisite EMP as part of the application for an ECC. The EMP is to be implemented to mitigate the potential impacts. The contents of this EMP will be binding on all parties who will have a role to play in the Site operations as stipulated in Sections 3 and will be liable for the rehabilitation measures recommended in Section 4.

1.1 PURPOSE OF THE EMP

The aim of the EMP is to ensure that the activities of the proposed development are conducted as per the requirements of the Namibian Environmental Management Act (No. 7 of 2007) and EIA regulations of 2012. The EMP provides a guideline on how the daily activities should be conducted and also provides a monitoring framework to ensure compliance against the recommended mitigation measures to avert any possible negative impacts.

The 2012 EIA Regulations defines a 'management plan' as: "...a plan that describes how activities that may have significant environments effects on the environment are to be mitigated controlled and monitored."

1.1.1 EMP Requirements

Table 1.1: EMP Requirements as outlined in Section 8 of the EIA Regulations Requirement

(j) a draft management plan, which includes –

(aa) information on any proposed management, mitigation, protection or remedial measures to be undertaken to address the effects on the environment that have been identified including objectives in respect of the rehabilitation of the environment and closure;

(bb) as far as is reasonably practicable, measures to rehabilitate the environment affected by the undertaking of the activity or specified activity to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development; and

(cc) a description of the manner in which the applicant intends to modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation remedy the cause of pollution or degradation and migration of pollutants.

1.1.2 Compliance to the EMP

Contents of this EMP are tailored in accordance with the prevailing EMA Act and the EIA Regulations. The aim is to provide appropriate management measures that would address the identified impacts that the project could bring about as stipulated in the sand mining questionnaire (see attached). The remedial and mitigation measures recommended for rehabilitation (section 4) remain binding to HBG and all employees. Adherence to the specifications identified herein is highly recommended throughout the lifespan of the facility.

It should be noted that the EMP shall not only be limited to the facility operations, but it encompasses the bigger picture. The document serves as the guiding tool to protecting the overall natural, bio-physical and socio-economic environment at large.

1.1.3 Proponent's Responsibility to the EMP

As the proponent, SX Investments One (Pty) Limited shall assume overall responsibility and implementation of the EMP. The development project Manager holds the mandate and sole responsibility of managing the daily operations and shall ensure that any other person (e.g. Casual Workers) is conversant with the contents of the EMP and adhere to the requirements. A copy of the EMP shall be kept at the Site premises and an induction should be conducted with all new employees prior to commencement of their responsibilities.

1.1.4 Possible adjustments to the EMP

The EMP should be considered as an open-ended document that can be updated or amended subject to new information. This is to allow for adjustments in the document as new information is made available and new mitigations where unforeseen environmental impacts arise.

1.1.5 Legal frameworks that are of relevance to this EMP

In addition to the EMA and the Environmental Assessment Policy, there exists a host of legal and policy documents and guidelines that govern environmental management as indicated in Table 1-2. SX Investments One (Pty) Limited has the responsibility to ensure that NO sand mining activities will be conducted and will be carried out during the preparation, construction and operation phase of the proposed development.

Table 1-2: Relevant legislation and the applicability thereof

Legislation considered	Aspect of Project
Regional Councils Act, 1992 (Act No. 22 of 1992)	The Regional Councils Act legislates the establishment of Regional Councils that are responsible for the planning and coordination of regional policies and development. The main objective of this Act is to initiate, supervise, manage and evaluate development in respective regions. Erongo Regional Council is an I&AP to this project and they have No objection to the proposed project proposal. Rights shall be reserved to them should they wish to review the EMP.
Water Resources Management Act (Act No. 11 of 2013)	This Act provides a framework for managing water resources based on the principles of integrated water resources management. It provides for the management, development, protection, conservation, and use of water resources. Furthermore, any watercourse on/or in proximity to the site and associated ecosystems should be protected in alignment with the listed principles. Construction activities pose danger to surface and underground water resources through the inappropriate use of fuels and lubricants. The proponent shall ensure adequate handling of hazardous substances that could pollute water sources.
Pollution Control and Waste Management Bill (in preparation)	This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. The Bill will repeal the Atmospheric Pollution Prevention Ordinance (11 of 1976) (below) when it comes into force. The Bill also provides for noise, dust or odour control that may be considered a nuisance. The Bill would repeal the Atmospheric Pollution Prevention Ordinance (11 of 1976) (below) when it comes into force. Furthermore, the Bill advocates for duty of care with respect to waste management affecting humans and the environment and calls for a waste management licence for any activity relating to waste or hazardous waste management.
Atmospheric Pollution Prevention Ordinance (Act No.11 of 1976)	This Ordinance serves to control air pollution from point sources, but it does not consider ambient air quality. Any person carrying out a 'scheduled process' which are processes resulting in noxious or offensive gases typically pertaining to point source emissions have to obtain a registration certificate from the Department of Health.

	Although we do not anticipate the mining activities to generate excessive dust particles, the proponent should implement the necessary mitigation measures to limit dust emissions to air.
Public Health Act (Act No. 36 of 1919)	The Act serves to protect the public from nuisance and 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. The proponent should ensure that the site workers are provided with protective gear to safeguard their wellbeing. The activities should also be conducted in a manner that does not pose any danger to the public and that any emissions which could be considered a nuisance remain at acceptable levels.
Labour Act (Act No. 6 of 2007)	The 1997 Regulations relating to the Health and Safety of employees at work sets out the duties of the employer, welfare and facilities at the workplace, safety of machinery, hazardous substances, physical hazards, medical provisions, construction safety and electrical safety. Specifically, no employer shall require or permit an employee to work in an environment that is deemed unfit without protective measures in place. The proponent as the employer should adhere with all the requirements of the Act and the associated Regulations.

2 PROJECT DESCRIPTION

2.1 PROJECT LOCALITY

SX Investments One (Pty) Limited proposed development project is located in within the Henties Bay Townland no. 133 southwest of the town. The site is situated adjacent to existing Henties bay Ext 11 called Sunbay. Portion 127 is 5000sqm in size and is situated approximately +-150 to 200 meter from the sea. The site has an existing access well maintained salt gravel road with access to services such as water, electricity and sewerage drainage system.

INDUSTRIAL PROCESS

The Project proponent (SX Investments One (Pty) Limited) intends to establish a residential development on a unserviced portion of land, Portion 127 situated on the Henties bay townland, townland no. 133 southwest of henties bay. This development will comprise a high-class best of the art residential property,

with outbuildings. He proposed development will start construction once the rezoning of the portion is finalized from "Undetermined" to General residential 2, a zoning which caters and accommodates the development of dwelling units and residential accommodation. The proposed residential property development will be about 40m x30 m at the ground level and then reduce in size as it rises. The building will be constructed and designed as follows:

I envisage at the ground floor a foot print of about 40mx30m (4m high)

- First Floor will be Bedrooms (4m High)
- Second Floor – Living space / Kitchen (8m High)
- Master Suite – (4m high)
- Solar on the Roof

2.1.1 Infrastructure

A corrugated iron shed ranging will be used as a storage facility and for worker shed on the site. Both water, electricity and sewer connection are already installed with a water tap suitable for both human and animal consumption.

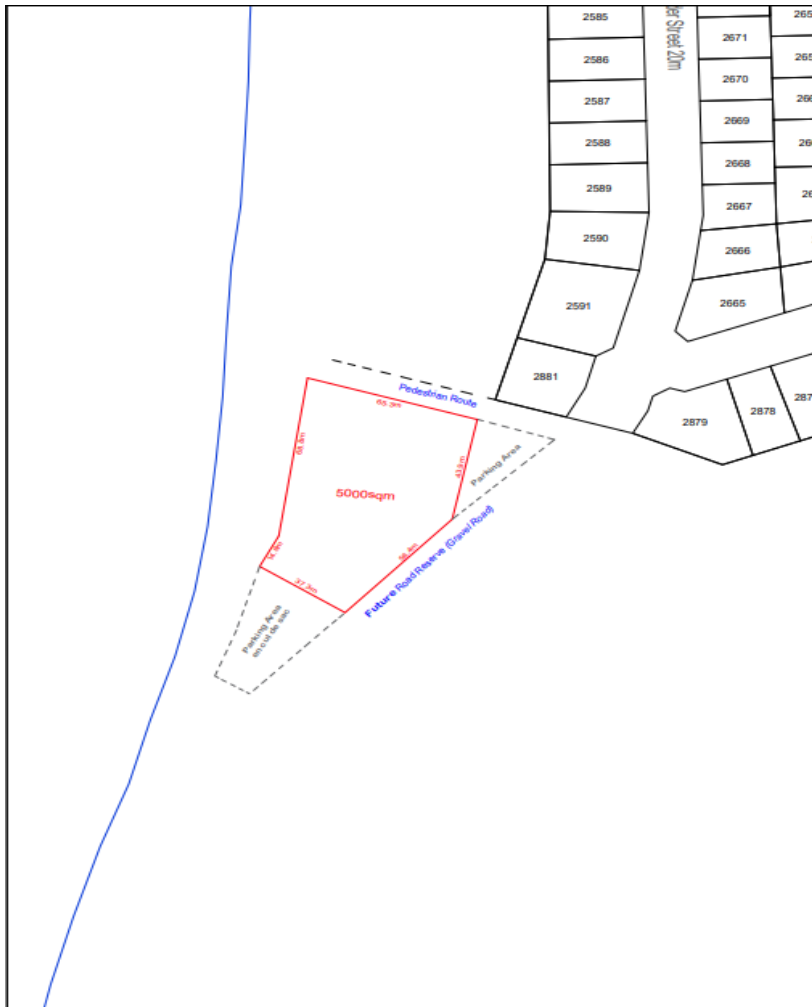


Namibia's economy is highly dependent on a healthy environment however, striking a balance in meeting demands for economic development while maintaining biological and social wellbeing may be a challenge. The current increase in infrastructure development in most Namibian towns has resulted in the high demand for construction material especially bricks. Environmentalists and development sectors should therefore work together and identify synergies to ensure that natural resources are utilised sustainably. Development takes place on land (in the environment) and hence the quest for economic development requires a trade-off with certain parts of the environment in-order for the development to be realized. Meaning, for development to take place, some part of the environment and or the surrounding communities could be affected. However, it is of utmost importance that such impacts are mitigated through effective implementation of the EMP.

2.2 IMPACTS ASSOCIATED WITH THE SITE

2.2.1 Infrastructure development

The development of infrastructure on the national land without authorization as per EMA Act is an illegal practice that is punishable. The Environmental act lists infrastructure development as part of the listed activities that requires undertaking of Environmental Impact Assessment & Environmental Management Plan. Thankfully SX Investments One (Pty) Limited does not develop without following the right procedures However due to the nature of proposed project activities, as such an Environmental Clearance Certificate should be obtained.



3 ROLE PLAYERS & RESPONSIBILITIES

This section outlines the roles and responsibilities of the respective key personnel that would be responsible for effective implementation of the EMP.

3.1 Roles and Responsibilities

Assigning responsibilities is necessary to ensure that key procedures are followed. The overall responsibility to ensure that the EMP is implemented rests with the Site Manager, who shall appoint a team of workers to undertake the actual work.

The key role-players for project implementation are;

- a) An Environmental Compliance Officer (ECO) representing MET for environmental auditing and monitoring;
- b) The Site Manager (or assigned representation by SX Investments One (Pty) Limited)

All instructions and official communications regarding environmental matters shall follow the organisational structure as determined by SX Investments One (Pty Limited). The only exception to this

rule would be in an emergency (defined as a situation requiring immediate action and where failure to intervene timeously would, result in unacceptable environmental degradation), where instructions may be given directly to any other Site personnel.

Project development Site Manager:

The Site Manager will be responsible for the overall daily operations at the facility and shall be responsible to adherence to the EMP throughout the project span. All team members shall be well-versed with the contents of this document. The following are some

key responsibilities;

- Ensure that the works on-site are conducted in an environmentally sensitive manner and in accordance with the requirements of the EMP at all times. Special care shall be taken to prevent irreversible damage to the environment.
- Ensure that all site staff are adequately informed of the requirements of the EMP pertaining to their site role, and that they have attended an environmental induction session (this session must be in the form of a talk and/or a written code of conduct that is clearly explained and understood by the team).

The Environmental Compliance Officer (ECO):

The ECO in the context of this document refers to the party responsible for the environmental compliance and auditing activities required by the EMP for the lifecycle of the Site. The ECO shall be an independent environmental manager. The ECO shall have adequate environmental knowledge to understand the detailed environmental issues associated with the project, and is to be well versed in the contents of the EMP:

- The ECO shall undertake all monitoring and auditing activities to ensure compliance with the EMP.
- The ECO shall inspect the site at any suitable time during operation.
- The ECO shall compile progress reports following any site inspections, Compliance Reports following any non-compliance, and a Closure report following the conclusion of brick making activities.
- The ECO shall liaise closely with the Site Manager and shall provide guidance on any environmental management issues, incidents or emergencies that are brought to their attention.
- The ECO shall assist in providing recommendations for remedial action in the event of any non-compliances.

3.2 Compliance with Requirements

Environmental management is not only concerned with the impacts on the environment, but also with how such operations are carried out. Tolerance with respect to environmental matters applies not only to the finished product but also to the standard of the day-to-day operations as well as the wellbeing of the immediate communities.

The development of an EMP for a project is therefore an important and necessary task that is aimed at assigning responsibilities and mitigation options to a variety of activities. However, it can also be an ineffective tool in the absence of auditing or monitoring activities. Auditing or monitoring activities involve the structured observation, measurement, and evaluation of environmental data over a period of time.

3.2.1 Disciplinary Action

The EMP is a legally binding document. Non-compliance with the EMP shall result in disciplinary action being taken against the perpetrator/s. Such action may take the form of (but is not limited to) financial penalties, legal action, fines and/or suspension of work. The disciplinary action shall be determined according to the nature of the non-compliance or crime, and exact penalties are to the discretion of MET according to the severity of the incident. Measures to be implemented by SX Investments One (Pty) Limited with assistance of monitoring by the ECO are outlined in the Table 3-1 overleaf:

ASSESSMENT OF ENVIRONMENTAL ASPECTS AND PROPOSED MITIGATION MEASURES TO BE PERFORMED BY THE CONTRACTOR AND LAND OWNER DURING ALL PROJECT PHASES

Identified Aspects		Proposed Mitigation Measures	Responsible Party for Mitigation Measures	Proposed Monitoring to be Performed
Occupational Health and HIV and AIDS	Prevalence of HIV might increase due to the project. The immigration of mainly single persons to the construction site presents a perfect opportunity for sex workers and for local community members to engage in unsafe, sex-for-cash sexual relations	HIV/AIDS awareness and prevention, and general hygiene training programmes should be developed and implemented before any construction commences. The main target group is the staff members, but the public may also be encouraged to attend. • Follow up awareness raising and education should be conducted at least every six months	Contractor	Review of the presentation material used for the awareness raising/education session, interviews with construction staff/labourers, and general observations.
Environmental Health and Safety	As a result of increased human population on site and project associated activities, the risk for environmental pollution is high.	• A health & safety and environmental management training session(s) prior to commencing work on	Contractor	Review of the presentation material used for the training, interviews with construction staff/labourers, and

		site shall be conducted for all staff members and sub-Contractors. • A follow up session(s) shall be conducted as needed to ensure all staff members and sub- Contractors have received training.		general observations
Socio-economic well-being	This project has potential to increase local economic growth through employment opportunities and sub-contracting services.	• Semi-skilled and unskilled jobs should target local community members. • The Contractor should meet with local leaders to discuss opportunities for employment of local residents.	Contractor	Confirmation of Contractor's discussions with local leaders
Borrow Pits	The establishment of borrow pits to obtain material to be used for layer works can lead to serious land degradation, injuries to people and livestock, and result in dust exposure.	• Existing borrow pits should be used if possible and no borrow pit will be created. • Borrow pits shall be rehabilitated to the satisfaction of the Resident Engineer and Environmental Manager. • Borrow pits must be trimmed to a low angle of repose to ensure that the site does not pose danger to people and animals. • Borrow pits should not be immediately next to the roads or near areas with high human activities, but should be far away as possible from the roads and residential areas as far as possible. • The Contractor should confirm with the local leadership if certain borrow pits should be	Contractor	Visual inspection prior to excavation, regularly (at least weekly) during construction, and after closure and rehabilitation.

		rehabilitated as water points. • The organic top soil (layer from above ground down to 20 cm below ground) will stripped and be stock piled separately.		
Dust	Dust may be produced during construction and may be worsened when strong winds occur, posing a nuisance and potential health risk to neighbouring communities and staff members.	<ul style="list-style-type: none"> • Excavation, handling and transporting of layer materials must be minimised under high wind conditions. Dust suppression measures may be required, such as sprinkling the construction site with water to suppress the dust. • Dust protection masks must be provided to all staff members working in dust polluted environment. • All vehicles speeds should be controlled to reduced dust production, hence appropriate road signs should be placed to control the traffic speed 	Contractor	Regular visible inspections
Noise	Noise pollution due to heavy-duty equipment and machinery on site. Disturbance of the residents and staff members' exposure to noise in the vicinity of the construction area will have to be taken into account during construction	<ul style="list-style-type: none"> • Ensure engines of construction machinery are fitted with mufflers. • Equipment and machinery operators should be equipped with ear protection equipment. • Operations should be strictly between 07H00 to 19H00. 	Contractor	Inspections, and RE to find out from Contractor his/her daily start and end times.

<p>Safety and Security</p>	<p>Earthmoving equipment used on site may increase the possibility of injuries to both staff members and the public. The presence of equipment and materials not securely stored may encourage</p>	<ul style="list-style-type: none"> • The Contractor must ensure that all staff members are briefed daily about the potential risks of injuries on site. • All staff members shall receive health and safety training prior to working on any construction work. • Flammable materials (e.g. fuel for construction vehicles) should be stored as far as possible from sensitive receptors. • Storage of hazardous materials and substances shall be strictly in accordance with the appropriate risk and fire prevention standards. • Material Safety Data Sheets (MSDS's) for all chemicals and any hazardous substance used on site should be readily available on site at all times. • The Contractor is urged to ensure that adequate emergency facilities, including first aid kits, are available on site. • Adequate traffic and safety signs must be placed at the construction site to warn and inform all stakeholders about the construction and traffic conditions. • The Contractor must adhere to all 	<p>Contractor</p>	<p>Regular inspections and interviewing of staff</p>
----------------------------	--	--	-------------------	--

		relevant laws, regulations, guidelines and policies with regards to labour aspects, health and safety standards. • Development not allowed within 100m of water bodies and river banks.		
General Nuisance of the Construction Activities	Aesthetics and inconvenience caused to persons trying to access/exit the construction site, or other general nuisances arising from the construction activities.	<ul style="list-style-type: none"> • The Contractor should maintain tidiness on site at all times. • Site camps will be properly fenced and no domestic animals are allowed on site without permission from the RE and Contractor. • The Contractor must ensure that all borrow pits are rehabilitated at the end of construction to reduce unwanted aesthetic impacts. • The Contractor should at all times keep “an open-door policy” towards the local community. This will encourage cooperation and strengthen relationships. 	Contractor	Daily inspections and incidents report reviews
Groundwater Contamination	Groundwater contamination can be caused by leakages and spills of fuel and oils from machinery and heavy-duty vehicles during the construction phase. Care must be taken to avoid contamination of soil and groundwater.	<ul style="list-style-type: none"> • Prevent spillages of any grease, oils, chemical or fuel product. Use drip trays during maintenance of vehicles and machinery. • The maintenance area must be equipped with a concrete floor surface to prevent soil and groundwater pollution. • All areas used for storage and cleaning of machinery or 	Contractor	Daily inspection.

		<p>equipment and vehicles must be banded with prescribed height, and covered with an impermeable floor surface. • Polluted soil should be collected and stored into containers and disposed off at appropriate and licenced dumping sites. • Collected waste fuels and oils or waste water contaminated with oils must be stored in containers and disposed off to licenced and appropriate dumping sites. • Domestic and other types of wastewater below prescribed standards cannot be discharged into the environment</p>		
Surface Water Contamination	<p>Surface water contamination can be caused by leakages and spills of fuel and oils from machinery and heavy-duty vehicles during the construction phase. Care must be taken to avoid contamination of soil and surface water</p>	<ul style="list-style-type: none"> • A site which is properly demarcated and lined should be allocated for machinery servicing. • The use of drip trays is highly recommended to prevent soil and water pollution. All spills should be cleaned up as soon as possible, after the incident. • The maintenance area must be equipped with a concrete floor surface to prevent soil and surface water pollution. • All areas used for storage and cleaning of machinery or equipment and vehicles 	Contractor	Daily visual inspection. Surface water quality and soil pollution monitoring

		<p>must be banded, and covered with an impermeable floor surface. • Where concrete is mixed on site, such activities will be carried out to avoid environmental pollution. Thus mixing of concrete will not be done directly on the ground and used cement bags should be stored and disposed off in a manner, which prevent pollution of the surrounding environment. • Polluted soil and water should be collected and stored into containers and disposed off at appropriate Henties bay licenced dumping sites. • Development not allowed within 100m of water bodies and river banks</p>		
Generation of Waste	This can be in a form of contaminated soil, cleared vegetation, rubble, domestic waste and stockpiles	<p>• Stockpiles should be stored and/or disposed in accordance to the relevant policies and guidelines. • Ensure that no excavated soil, refuse or building rubble generated on site are placed, dumped or deposited on adjacent/surrounding properties or land. • Wind and animal proof bins must be provided at demarcated areas. Waste must be</p>	Contractor	Daily inspection and housekeeping procedure and monitoring programs.

		<p>disposed off at a licensed waste disposal site. • Biodegradable waste can be buried in 1.5m depth holes. • Ensure that hydrocarbon contaminated soil is bio-remediate before being disposed in the environment. • No littering or dumping of solid waste of any description is permitted on the site. All litter especially plastics and other materials capable of being dispersed by the wind and constituting hazard to public livelihoods' activities should be collected daily, properly stored before disposed off at an approved dumping site. • Construction waste should be recycled whenever possible, in accordance with the waste management plan. • Domestic wastewater should be collected into appropriate sewage tanks, and treated with appropriate chemicals before discharge at licenced solid waste sites. • Toilets should be provided to male and female staff members at a ratio of 1:20. • No burning of refuse shall be allowed.</p>		
--	--	--	--	--

<p>Protection of Biodiversity and Cultural Heritage</p>	<p>As a result of motorised activities and human presence on site, disturbances can occur that could threaten biodiversity, ecosystems functions and services and cultural heritage.</p>	<p>• Site Management Plans depicting preferred site for construction camps, permanent way for materials collection and storage, no-go sensitive and protected areas, known borrow pits, etc. need to be developed by the Contractor with the assistance of the project engineer. These plans need to be documented, refined, updated, and implemented prior to the commencement of work at any location. • There was no cultural heritage observed during the assessment. The project engineer and the Contractor should regularly communicate with relevant local authorities to identify cultural heritage sites. If such sites are found or excavated, construction should immediately stop and relevant authorities should be informed. Construction works can only resume with written approval from the relevant authorities. • Construction is not allowed within 100m from the river bank</p>	<p>Contractor</p>	<p>Review of the Site Management Plans and daily inspection of the site.</p>
---	--	---	-------------------	--

or within the 1:50 year flood line. • No water should be abstracted from any source without specific written approval from relevant authorities. • Staff members are not allowed to engage in illegal activities

such poaching, illegal harvesting forest products including timber and non-timber productions. • To minimise land degradation, no off-road driving is allowed

except on demarcated access and hauling roads.

• The confines of the site, especially haul and access roads shall be clearly marked and signposted by the Contractor at the direction of the ECO. • Access and haul roads should be rehabilitated by ripping them so to facilitated water penetration and seed bank establishment. • All necessary measures should be implemented to minimise fauna displacement and flora destruction. • No fires are allowed on site at all times, unless dually authorised by the Contractor. • Soils from areas infested with

		<p>invasive flora should not be hauled from those specific areas. The risk of such species dispersing and displacing natural vegetation is very high, thus the ECO should be consulted at all times to ensure that invasive plants are not accidentally dispersed.</p> <ul style="list-style-type: none"> • It is recommended that, for every fruit tree or protected trees removed from the construction site (including from borrow pits, access and hauling roads), 3 fruit trees should be replanted at nearby schools. • Any person or institution or company not complying with these specifications are liable to fines and penalties as indicated in this EMP and other relevant contracts conditions, relevant laws, and regulations. 		
			Contractor	

.....
Nyepz Consultancy CC
Environmental and Management Consultant

