

Environmental Management Plan (EMP)



Construction of Ondjamba Hills Camp in Otjimboyo Conservancy, Erongo Region

Prepared for

**Otjimboyo Conservancy
P.O. Box 72, Uis**

Prepared by



TRINITY ENVIRONMENTAL SOLUTIONS
Email: trinityenvir@iway.na
PO BOX 3559
Windhoek, Namibia

August 2023

**RENEWAL OF THE ENVIRONMENTAL CLEARANCE CERTIFICATE AND
CHANGE IN PROJECT NAME**

TABLE OF CONTENTS

NO.	SECTION	PAGE
1.	INTRODUCTION	2
1.1	Objectives	3
1.2	Summary of the types of construction work to occur	4
2.	LEGISLATIVE FRAMEWORK	5
3.	ROLES AND RESPONSIBILITIES	7
3.1	Otjimboyo Conservancy	7
3.2	Investor - Wild Tented Accommodation Africa (Pty.) Ltd	7
4.	COMMUNICATION, RECORD KEEPING, DOCUMENT CONTROL AND COMMUNITY RELATIONS	9
5.	COMPLIANCE WITH EMP	10
6.	CONCLUSION	11
7.	ASSESSMENT OF ENVIRONMENTAL ASPECTS AND PROPOSED MITIGATION MEASURES TO BE PERFORMED BY THE INVESTOR DURING CONSTRUCTION, OPERATIONAL AND DECOMMISSIONING PHASES	12

1. INTRODUCTION

Prior to Namibia's independence in 1990, communal area residents had few rights to use wildlife. Wild animals were often seen as little more than a threat to crops, livestock and infrastructure, as well as community safety. Ground-breaking legislation passed in the mid-1990s laid the foundation for a new approach to the sustainable use of natural resources. By forming a conservancy, people in communal areas could now actively manage and generate benefits from wildlife and other resources in their area. This led to wildlife recoveries and environmental restoration. While a conservancy is a natural resource management structure, it is defined by social ties. Conservancies unite groups of people with the common goal of managing their resources. Today, there are over 90 communal conservancies registered in Namibia, including the Otjimboyo Conservancy, and they are a key platform for development and community empowerment in Namibia.

Due to the changes in the legislative framework, many Conservancies and individual members of these Conservancies are developing tourism facilities with the support of NGO's, Private Sector and some local community members are even using their own capital to develop ecotourism facilities. The proposed Camp will be constructed by the Otjimboyo Conservancy joint venture with Sense of Africa, trading as Wild Tented Accommodation Africa (Pty.) Ltd.

This initiative is envisaged to operate for at least 30 years and will be an environmental friendly tourist facility for tourists who wish to travel and experience the abundance of wildlife in the Conservancy and is perfectly situated since it is in route to the Brandberg and its famous "White Lady", Messum Crater, Dorob National Park, Skeleton Coast, Kaokoland, Twyfelfontein Heritage Site, Organ Pipes Stones, Burnt Mountain, Petrified Forest, Palmwag, and other sites. The proposed development also aims to provide a foundation for the training of local community members in the hospitality and tourism industry, as well as in wildlife conservation in collaboration with the Conservancy. The Camp will be located approximately 5 km north-west of the main Uis and Sorris-Sorris C35 gravel road.

This local business and environmental education venture by the Conservancy and Wild Tented Accommodation Africa (Pty.) Ltd. Joint Venture, aims to promote and support local conservation while at the same time generate income for the local community, Conservancy and the Investor. The Camp will offer accommodation and services for

clients only booked through Wild Tented Accommodation Africa (Pty.) Ltd. Joint Venture.

The overall design of the camp shall be tastefully constructed in accordance to its surrounds using a low environment impact design and materials, accommodating up to 40 guests, 8 guides, and 10 to 15 camp rotating staff members. The proposed project's physical foot-print will be at maximum 4 ha. Over the next 5 years, at least N\$ 5,000,000.00 will be invested into the business. Average salaries are envisaged to be N\$ 1,500.00 per staff for the first 5 years.

Trinity Environmental Solutions (TES) was appointed by the Investor to conduct an independent Environmental Impact Assessment (EIA) for the development of the Camp. In terms of Namibia's Environmental Management Act (No. 7 of 2007, Section 27(2j)), Government Notice No. 29 Listed Activities, Section 6) and Government Notice No. 30 (EIA Regulations), the above proposed activity constitutes a number of listed activities which require Environmental Clearance prior to commencement of the project. The proposed site area is located at the following geographical coordinates:

Latitude: -20.921785°S

Longitude: 14.912253°E

1.1 Objectives

The objectives of this EMP are to:

- Promote sustainable development by encouraging conservation and mitigation of significant negative impacts to the natural and social environments.
- Inform the Conservancy and their appointed Environmental Manager, and the Investor and their appointed Environmental Control Officer about their roles and responsibilities regarding environmental management in the project.
- Identify specific actions to be taken by the Investor to prevent or minimise negative significant impacts to the natural and social environments.
- Identify laws, regulations and standards that are applicable to the environmental management of this project.
- Describe monitoring and verification procedures to be employed by the Environmental Manager to ensure that the Investor complies with all requirements of the EMP.
- Establish the procedures, fines and penalties that could be applied by the Conservancy and Environmental Manager when the Investor does not comply with the EMP.

1.2 Summary of the types of construction work to occur

Application for the Environmental Clearance from the Directorate of Environmental Affairs (DEA) is being made for the establishment of a 20 tented sites Safari Camp and staff accommodation.

Products and services planned to be offered at the proposed eco-friendly Safari Camp is to include the following:

- Support to anti-poaching and wildlife monitoring activities
- Support to human-wildlife conflict mitigation activities
- Guided Game Drives
- Guided Cultural and Natural Heritage tours
- Restaurant to provide meals and a place of refreshment
- Curio shop with locally sourced handicrafts and products
- Administration area
- Accommodation for visitors and staff.

After extensive research, the Proponent and its partner established a bed limit for the development, which has been determined to accommodate a maximum of 60 people, including both guests and resident staff. Staff housing will be constructed west of the camp about 300m away using similar design and construction materials.

This tourism facility will be an environmental friendly camp for tourists who wish to travel and experience the abundance of wildlife in the area and Damaraland. It will cater for only clients booked through the Joint Venture.

Activities from the facility are proposed to include only day drives in open 4x4 vehicles on existing tourist tracks accompanied by qualified and experienced guides. Accompanied walks with suitably qualified guides will also be possible in some areas.

Environmental friendly ablution facilities will be provided, where wastewater will be collected in septic tanks lined to avoid contamination of soil and groundwater. The facility plans to recycle initially 10% of the grey water and to improve on it in the future. Waste water will be collected in pre-fabricated septic tanks and treated to speed up the decomposition. The design and operations of these septic tanks will comply to the:

- Department of water affairs & forestry code of practice: volume 1.
- Septic tank systems general guidelines (July 2008).

An existing borehole within the area exist but with very low water quality not suitable for human use. Hence new boreholes will be drilled to secure water for both human and wildlife use during the construction and operational phases.

The main tourism season in Namibia is between the months of May to October. This period is dry and tourists visiting the Erongo and Kunene Regions are very aware of the water stress conditions. Additionally, tourists will be regularly educated about saving water and using water sparingly

No permanent structure shall be erected, apart from foundations for the restaurant and tents. The floors of all structures will be concrete and the Camp structure shall consist of pre-manufactured cottage-styled tents with canvas. All the materials to be used can be broken down, destroyed, removed and disposed off very easily without leaving behind any building rubble or any persistent pollutants and waste.

No new roads will be developed, but new 1 m width walkways will be developed in a manner which ensures minimal impact taking the sensitivity of the associated environment into consideration.

2. LEGISLATIVE FRAMEWORK

The proposed project is a listed activity in terms of the Environmental Management Act (No. 7 of 2007, Section 27(2j)), Government Notice No. 29 Listed Activities, Section 6) and Government Notice No. 30 (EIA Regulations). The table below summarises of some of the legislation and policy guidelines that are relevant to the proposed project.

Table 1: Relevant Legislation and Policy Guidelines

Title of legislation, policy or guideline	Implications for proposed project (Please read all Acts with their Regulations)
The Namibian Constitution of 1990	The Constitution clearly indicates that the state shall actively promote and maintain the welfare of the people by adopting policies aimed at management of ecosystems, essential ecological processes and biological diversity of Namibia for the benefit of all Namibians, both present and future.
Water Resources Management Act No. 11 of 2013	This Act protects all water resources in Namibia. The Act also laid down conditions to ensure that proper wastewater treatment is provided, including requirement for wastewater discharge permit from the Directorate of Water Affairs.
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.
Environmental	The Act provides a list of projects requiring an Environmental assessment. It aims to

Management Act No. 7 of 2007	promote the sustainable management of the environment and the use of natural resources and to provide for a process of assessment and control of activities which may have significant effects on the environment.
MET Policy Document - Community-Based Tourism Development (June 1995)	<p>This document contains the approved Ministry policy for providing support to, and encouraging the development of, community-run tourism activities and enterprises on communal land.</p> <p>This policy document provides a framework for ensuring that local communities have access to opportunities in tourism development and are able to share in the benefits of tourism activities that take place on their land.</p> <p>Support for the involvement of rural communities in tourism enterprises is important:</p> <p>a) to implement the government policy of giving communities access to development opportunities and</p> <p>b) because where tourism is linked to wildlife and wild landscapes, the benefits to local communities can provide important incentives for conservation of these resources.</p>
Act No.5, 1996 Nature Conservation Amendment ACT, 1996	<p>This amendment to the Nature Conservation Ordinance of 1975, provide for an economically based system of sustainable management and utilisation of game in communal areas.</p> <p>This amend allows for the formation of Conservancies in communal areas.</p>
Hazardous Substances Ordinance No. 14 of 1974	<p>The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export. Its primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.</p> <p>Hydrocarbons handled during the construction phase may be hazardous thus careful handling and management is vital to prevent spills, explosions, ill-health or death.</p>
Pollution Control and Waste Management Bill of 1999	The Bill promotes sustainable development and the establishment of the Pollution Control and Waste Management Unit; to prevent and regulate the discharge of pollutants to the air, water and land; to make provision for the establishment of an appropriate framework for integrated pollution prevention and control; to regulate noise, dust and odour pollution; to establish a system of waste planning and management; and to enable Namibia to comply with its obligations under international law in this regard.
Draft Wetlands Policy of 2004	This policy strives to complement existing policy instruments regarding sustainable development and sound natural resource management in Namibia. Its implementation provides a platform for the conservation and wise use of wetlands, thus promoting inter- generational equity regarding wetland resource utilisation. Furthermore, it facilitates the Nation's efforts to meet its commitments as a signatory to the International Convention on Wetlands (Ramsar) and other Multinational Environmental Agreements (MEA's).
National Waste Management Policy, 2010	This policy is focusing specifically on Waste Management and use of various technologies waste treatment and disposal to minimize health risks. It is also geared to have a unified waste management system country wide. This policy provides the necessary guidance on the processes related to waste management in the MOHSS, wider Namibia health and social welfare sectors, and other relevant stakeholders. It is taking into consideration the process of integrated waste management from generation to final disposal. This practice also focus on medical, household, mining, agricultural, and construction waste.
Forest Act No. 12 of 2001 and its amendments	The purpose of this Act guides the use and management of forestry and related resources. The aims of the forest management as per the Act, is to achieve manage of forest "for which forest resources are managed and developed, including the planting of trees where necessary, to conserve soil and water resources, maintain biological diversity and to use forest produce in a way which is compatible with the forest's primary role as the protector and enhancer of the natural environment."
National Heritage Act No. 27 of 2004	The Act provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for

	incidental matters.
Labour Act No. 11 of 2007)	Consolidate and amend the labour law; to establish a comprehensive labour law for all employers and employees; to entrench fundamental labour rights and protections; to regulate basic terms and conditions of employment; to ensure the health, safety and welfare of employees; to protect employees from unfair labour practices; to regulate the registration of trade unions and employers' organisations; to regulate collective labour relations; to provide for the systematic prevention and resolution of labour disputes; to establish the Labour Advisory Council, the Labour Court, the Wages Commission and the labour inspectorate; to provide for the appointment of the Labour Commissioner and the Deputy Labour Commissioner; and to provide for incidental matters.
Public Health Act, No. 36 of 1919 and Amendments and Regulations	This Act makes provision for the prevention and control of infectious diseases, venereal diseases and epidemics. It also regulates sanitation, food and public water supplies.

3. ROLES AND RESPONSIBILITIES

The EMP requires the involvement of multiple stakeholders: The Conservancy and the Investor. The following are the responsibilities of the different key stakeholders:

3.1 Otjimboyo Conservancy

- Review reports regarding the implementation of the EMP.
- Following the guidelines of the EMP, give warnings and impose fines and penalties on the Investor when the Investor neglects to implement the EMP satisfactorily.

3.2 Investor - Wild Tented Accommodation Africa (Pty.) Ltd)

The following are the responsibilities of the Investor:

- Fully implement the conditions stipulated in the Authorisation and Record of Decision issued by Environmental Commissioner/Directorate of Environmental Affairs (DEA) and any other competent regulatory body having authority over the project or the activities concerned.
- Fully implement the EMP and ensure compliance throughout the project duration.
- Appoint an Environmental Control Officer who is to oversee all aspects of the implementation of the EMP and communicate with the Conservancy on all EMP-related issues.

***Please note that due to the nature of this proposed development, an experienced and qualified Investor's staff may execute the duties described below for the Environmental Control Officer, rather than the Investor appointing an independent, full time Environmental Control Officer for the project.**

- Prepare and submit a monthly report concerning environmental management, health and safety to be reviewed on request by the Competent Authority (Environmental Commissioner) and by the Conservancy. The report content should cover: any training performed; status of training received by all staff and the Investor's Contractors staff; copies of the Investor's weekly Site Inspection Forms; summary of any issues or incidents concerning environmental management or health & safety, and what the Investor has done to address the issues and incidents that have been identified by the Investor or by the Conservancy.
- Ensure that all employees and Contractors on site are informed about environmental and health & safety responsibilities, practices and procedures.
- Perform daily inspections to monitor environmental management and health & safety performance.
- Notify the Conservancy immediately in the event of any accident or infringements of the EMP and ensure appropriate remedial action is taken.
- Notify the Conservancy at least 10 working days in advance of any activity s/he has reason to believe may have significant adverse environmental impacts, so that mitigatory measures may be implemented timeously.
- Identification and enforcement of environmental "No-Go" areas (to be approved by the Conservancy).
- Ensure that stockpiles and construction waste is stored and disposed off according to the agreed upon plan.
- Undertake rehabilitation of all areas affected by construction activities to restore them to an acceptable state, as determined by a Competent Authority and the Conservancy.

4. COMMUNICATION, RECORD KEEPING, DOCUMENT CONTROL AND COMMUNITY RELATIONS

The Investor will perform the following types of communication and record keeping:

- Shall ensure that all his/her senior staff and Contractors staff are familiar with the contents of the EMP and other relevant Plans.
- Keep record of significant incidents (e.g. spills, impacts, complaints and illegal transgressions, as recorded in the weekly Site Inspection Forms) as well as corrective and preventive actions taken, for submission to the Conservancy at the scheduled monthly meetings along with copies of the Site Inspection Forms. The Investor shall inform the Conservancy immediately about any emergencies (including spillages) on site and along the transport routes. The Investor shall also submit a full report on the handling of the emergency as soon as possible (i.e. within the following hours or days). The following details shall be discussed in the report:
 - Nature and cause of environmental damage.
 - Type of material spilled and volume spilled.
 - Description of clean-up activities, and restoration actions taken and/or to be taken.
- Keep a register of public complaints in which all complaints are recorded, as well as action taken. The Investor shall notify the Conservancy of any relevant complaints lodged by a third party and provide appropriate information for inclusion in the Investor's monthly environmental management and health & safety report.
- Submit a monthly written report to the Conservancy that provides details on the compliance with the EMP and environmental & health & safety performance. The monthly report on environmental management and health & safety shall include:
 - Findings of the weekly Site Inspection Forms.
 - Notice of any major incidents and complaints and follow up actions taken.
 - Documentation of variations to the EMP, non-compliances and corrective action.
 - Confirmation that appropriate environmental and health & safety training of personnel has been, and is being, undertaken.
 - Confirmation that emergency procedures are in place and have been effectively communicated to all personnel.

The Investor shall also facilitate an ongoing and constructive relationship with neighbouring communities. This will include the following actions:

- Where necessary, erect and maintain information boards in appropriate positions/locations. Such boards shall also include contact details where members of the public may address any complaints or comments they may have.
- The public shall be kept informed of any activities that may cause a disturbance, such as dust, poor bypass roads, loud and noisy construction activities.
- The Investor shall maintain a Public Complaints Register in which all complaints are recorded.

5. COMPLIANCE WITH EMP

The Investor shall ensure that all staff, suppliers, etc. are familiar with, understand, and adhere to this EMP. Failure by any employee of the Investor, Sub-consultants, Suppliers to comply with the EMP shall be considered sufficient cause for the Conservancy to instruct the Investor to have the relevant employee removed from the site. The Conservancy may also order the Investor to suspend part or all of the works if there is non-compliance with the EMP. Such suspension shall be lifted only when the offending procedure or requirement is corrected and/or if required remedial measures are put in place.

6. CONCLUSION

The Environmental Management Plan (EMP) will form a basic tool for reducing the magnitude of impacts and suggesting practical measures to attain this. It is also used to measure compliance by the applicant. It is this tool that gives guidance during monitoring, auditing and taking corrective actions during its implementation, thereby ensuring continuous monitoring of the environment. This EMP was developed after an environmental assessment was performed. Any conditions of the Authorisation received from the Competent Authority should be incorporated and implemented by the Investor to complement this EMP.

Key sustainability principles to be emphasised include:

- Development must not irreversibly degrade the natural, built, socio-economic and governance resources on which it is based.
- Current actions should not cause irreversible damage to natural and other resources, as this potentially prevents the realisation of future sustainable options.
- Where there is uncertainty about the impact of activities on the environment, caution should be in favour of the environment.
- Land use and environmental planning need to be integrated.
- Immediate and long-term actions need to be identified and planned for, so that urgent needs can be met while still progressing towards longer-term sustainable solutions.

This EMP should be implemented throughout the project life-cycle, e.g. during pre-construction, construction, operation and decommissioning, in order to minimize negative impacts and enhance positive ones. It is intended that this EMP is a practical working document which sets out the guidelines for effective mitigation.

7. ASSESSMENT OF ENVIRONMENTAL ASPECTS AND PROPOSED MITIGATION MEASURES TO BE PERFORMED BY THE INVESTOR DURING CONSTRUCTION, OPERATIONAL AND DECOMMISSIONING PHASES

Identified Aspect		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 local community members to engage in unsafe, sex-for-cash sexual relations.	<ul style="list-style-type: none"> 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. 	The Investor	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.	<ul style="list-style-type: none"> A health & safety and environmental management training session(s) prior to commencing work on site shall be conducted for all staff members and sub-consultants. A follow up session(s) shall be conducted as needed to ensure all staff members and sub-The Investor have received training. 	The Investor	Review of the presentation material used for the training, interviews with construction staff/labourers, and general observations.
Socio-economic well-being	This project has potential to increase local economic growth through employment opportunities and sub-contracting services.	<ul style="list-style-type: none"> Semi-skilled and unskilled jobs should target local community members. The Investor should meet with local leaders to discuss opportunities for employment of local residents. 	The Investor	Confirmation of the Investor' discussions with local leaders.

Identified Aspect		Proposed Mitigation Measures	Responsible Party for Mitigation Measures	Proposed Monitoring to be Performed
Dust	Dust may be produced during construction and may be worsened when strong winds occur, posing a nuisance and potential health risk to area users 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. 	The Investor	Regular visible inspections
Noise	Noise pollution due to heavy-duty equipment and machinery on site. Disturbance of the wildlife 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. 	The Investor	Regular inspections.

Identified Aspect		Proposed Mitigation Measures	Responsible Party for Mitigation Measures	Proposed Monitoring to be Performed
Safety and Security	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 theft.	<ul style="list-style-type: none"> • The Investor 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 Investor 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 Investor must adhere to all relevant laws, regulations, guidelines and policies with regards to labour aspects, health and safety standards. 	The Investor	Regular inspections and interviewing of staff

Identified Aspect		Proposed Mitigation Measures	Responsible Party for Mitigation Measures	Proposed Monitoring to be Performed
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 Investor should maintain tidiness on site at all times. • Site camps will be properly marked to allow for better controls over access to the area. • The Investor must ensure that all borrow pits are rehabilitated at the end of construction to reduce unwanted aesthetic impacts. • The Investor should at all times keep “an open door policy” towards the local community. This will encourage cooperation and strengthen relationships. 	The Investor	Daily inspections and incidents reports 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 equipment and vehicles must be bunded 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 licensed dumping sites. • Collected waste fuels and oils or waste water contaminated with oils must be stored in containers and disposed off to licensed and appropriate dumping sites. 	The Investor	Daily inspection.

Identified Aspect		Proposed Mitigation Measures	Responsible Party for Mitigation Measures	Proposed Monitoring to be Performed
Surface Water Contamination	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.	<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 must be bunded, 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 and licensed dumping sites. 	The Investor	Daily visual inspection. Surface water quality and soil pollution monitoring.

Identified Aspect		Proposed Mitigation Measures	Responsible Party for Mitigation Measures	Proposed Monitoring to be Performed
Generation of Waste	This can be in a form of contaminated soil, rubble, domestic waste and stockpiles.	<ul style="list-style-type: none"> • 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 disposed off at a licensed waste disposal site. • 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. • Toilets should be provided to male and female staff members at a ratio of 1:10. • No burning of refuse shall be allowed. 	The Investor	Daily inspection and housekeeping procedure and monitoring programs.

Identified Aspect		Proposed Mitigation Measures	Responsible Party for Mitigation Measures	Proposed Monitoring to be Performed
Protection of Biodiversity and Cultural Heritage	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.	<ul style="list-style-type: none"> • Site Management Plans depicting preferred site for construction camps, permanent way for materials collection and storage, no-go sensitive and protected areas, known materials/borrow pits, etc. need to be developed by The Investor with the assistance of the Conservancy. These plans need to be documented, refined, updated, and implemented prior to the commencement of work at any location. • <i>There is a large rock at Latitude -20.921860, Longitude 14.913325 with rock paintings. The National Heritage Council (NHC) instructed that no construction take place within 50m to 100m of this location. The Investor should communicate immediately to the NHC if more cultural heritage sites or objects are found. If new such sites or objects 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.</i> • 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 	The Investor	Review of the Site Management Plans and daily inspection of the site.

		<p>except on demarcated access and hauling roads.</p> <ul style="list-style-type: none"> • The confines of the site, especially haul and access roads shall be clearly marked and signposted by The Investor at the direction of the Conservancy. • 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 Investor. • Soils from areas infested with 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 Conservancy should be consulted at all times to ensure that invasive plants are not accidentally dispersed. • 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. 		
--	--	--	--	--

