

**ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE  
SUBDIVISION OF EENHANA TOWNLANDS NO. 859 AND  
CONSTRUCTION AND OPERATION OF A FUEL RETAIL  
STATION AND TRUCK PORT ON PORTION 35 IN EENHANA,  
OHANGWENA REGION**

**ENVIRONMENTAL MANAGEMENT PLAN (EMP)**

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## **DOCUMENT DESCRIPTION**

**PROJECT NAME**                      Subdivision of Eenhana Townlands No. 859 and construction and operation of a fuel retail station and truck port on Portion 35 in Eenhana, Ohangwena Region.

**DOCUMENT**                              ENVIRONMENTAL MANAGEMENT PLAN

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## **LIST OF ACRONYMS**

CEB:	Cuvelai-Etosha Basin
DEAF:	Directorate of Environmental Affairs and Forestry
DWRM:	Directorate of Water Resource Management
EAP:	Environmental Assessment Policy
EIA:	Environmental Impact Assessments
EMA:	Environmental Management Act
EMP:	Environmental Management Plan
EMS:	Environmental Management System
FOG:	Fat, Oil and Grease
HSEQ:	Health, Safety & Environment Quality System
I&APs:	Interested and Affected Parties
ISO:	International Standards Organisation
LNAPL:	Light Non-Aqueous Phase Liquids
MAWLR	Ministry of Agriculture, Water, and land Reform
MEFT:	Ministry of Environment, Forestry and Tourism
MSDS:	Material Safety Data Sheet
MURD:	Ministry of Urban and Rural Development
NORED	Northern Regional Electricity Distributor
PPE:	Personal Protective Equipment
SANS:	South African National Standards
ULP:	Unleaded Petrol
URPB:	Urban and Rural Planning Board
NSA:	Namibia Statistic Agency

# 1. INTRODUCTION AND BACKGROUND

## 1.1 Introduction

Peace Garden Investment (PTY) Ltd, hereinafter referred to as the proponent intends to construct and operate a fuel retail station and truck port on Erf 35 (Portion A) of Eenhana Townlands No. 859. The proposed development site is still undermined; hence town planning procedures will be applied in line with the Townships and Division of Land Ordinance 11 of 1963, as amended and approval will be obtained from the Urban and Rural Planning Board (URPB) under the Ministry of Urban and Rural Development (MURD) for the intended subdivision.

Upon subdivision, Portion 35 will be zoned “Business” in line with Eenhana Town Planning Scheme and will be utilized for the construction and operation of a fuel retail station, a truck port, and associated infrastructures. The intended development will include the followings.

- Fuel station (Canopy, fuel storage tanks, and Pumps)
- Convenient shop and site office
- Truck parking lot (port)
- Tyre fitment
- Ablution facilities (Toilet and shower, septic tank)
- Other general operational activities and maintenance procedures associated with a fuel retail facility

## 1.2 Purpose of the EMP

The Environmental Management Plan (EMP) is an environmental tool that is used to ensure that undue or reasonably avoidable adverse caused by the proposed project are minimized or prevented and the positive benefits of the project are enhanced. An EMP is therefore important in for ensuring that the management actions arising from Environmental Impact Assessment (EIA) processes are clearly defined and implemented through all phases of the project life cycle. All personnel taking part in the establishment and operations of the fuel storage facility should be made aware of the contents of the EMP, to plan the relevant activities that the project will include accordingly and in an environmentally sound manner.

The objectives of an EMP are:

- Ensuring compliance with regulatory stipulations and guidelines which may be local, provincial, national/international.
- Define details of who, what, where and when environmental management and mitigation measures are to be implemented.
- Formulate measures which will mitigate adverse impacts on various environmental components, protect environmental resources where possible, and enhance the value of environmental components where possible; and
- Providing feedback for continual improvement in environmental performance.

### 1.3 EMP Methodology

The stipulated environmental impact assessment procedure in terms of the Environmental Impact Assessment Regulations: Environmental Management Act, 2007 was followed. The following key activities and tasks have been undertaken as part of the EIA and EMP development process, namely to:

- Solicited initial input from main stakeholders. This is essential toward the development of a sound plan. Since no resource sits in isolation, an environmental management plan can affect several other parties. For the best adherence and acceptance of a plan, input is needed to address concerns early in the planning process.
- Identify the problems and or questions associated with the facility. Clearly defined objectives were identified to remain centered on a management plan. Only in this way can the success of this environmental management plan be gauged.
- Made a list of applicable criteria, standards and principles for construction as required by legislation, regulation, policies etc. As standards include criteria to fit various types of projects, much of the information is often irrelevant to anyone. Went through any standards or reference guides to be complied with and marked all requirements applicable to each situation.
- Established the extent of the management plan and what the client must do on its own. It is easy for a management plan to end up in someone's hands and never be executed. Inform the client that creating the plan is an iterative process requiring routine correspondence to tailor it to Project Contractor's specific needs.
- Seek public input through advertisement of the EIA process in the two widely circulated newspapers and continuous engagements with registering as I&APs. An attempt to gather public input is always required.

This environmental management plan was written to guide short-term goals and decision making and will provide environmental related guidelines. By having this plan in place, the site manager will have means to make good decisions. With public input, the plan helps agencies measure public opinion. It can help to guide future management decisions, especially when citizens are affected. It creates focus within an agency, guiding it through management changes.

## **2. RESPONSIBILITIES**

It is the core responsibility of the proponent to ensure the successful implementation of this EMP and any condition to be imposed by the competent authority and the Ministry of Environment and Tourism. The implementation of the EMP also requires the involvement of various role players, each with specific responsibilities to ensure that the development is operated in an environmentally sensitive manner.

### **2.1 The Proponent**

#### Responsibilities

- a) Implement the final EMP after approval by DEA and ensure the project comply with the conditions therein.
- b) Provide for Environmental Training and awareness of the EMP to all contractors, sub-contractors, and employees.
- c) Notify MEFT and EAP of any proposed changes to the proposed school.
- d) Appoint the responsible person to take the responsibility of the following:
  - Conduct monitoring and review of the on-site environmental management and implementation of the EMP by the Contractor and sub-contractors.
  - To audit the implementation of the EMP on a regular basis
  - Compile and submit an Environmental Reports (annually) to the Authority

### **2.2 Proponent: Project manager**

The proponent should appoint a project manager (PM) who will oversee the implementation of the project during the planning & design and construction phases. The project manager will ensure that all contractor and sub-contractors are complying with the content of this EMP. The project manager must ensure that are contractors, sub-contractors and all employees involved are aware of this EMP by providing a brief training. The Pm will also keep record of incidences during and take corrective actions i.e., issuing of penalties in case of transgressions etc. during project implementation.

## 2.3 The Contractor and Sub-contractors

It is expected that various contractors and sub-contractors will be appointed at various stages and for various tasks during different phases of this project. All appointed contractors and sub-contractors involved in the project shall ensure to comply with the EMP and its conditions, thus the proponent must ensure that a copy of the EMP is given to all contractors involved. The contractor upon receiving this EMP should ensure:

- To undertake their activities in an environmentally sensitive manner and within the context of this EMP.
- To undertake good housekeeping practices during duration of their activities; and
- To ensure that adequate environmental awareness training takes place in the language of their employees.

## 2.4 Authorities:

The local authority (Eenhana Town Council) through its respective departments, should provide supervisory and monitoring roles to ensure compliance to different regulations and to the Eenhana Town Planning Amendment Scheme.

Moreover, the following ministries **MEFT, MURD and MME** should also provide necessary assistance in terms of monitoring, supervision, information, or expertise as case maybe which are required for the successful implementation of this EMP.

## 2.5 The Environmental Assessment Practitioner (EAP)

The EAP shall be responsible for the submission of Environmental Reports to the competent Authority (MET) and provide additional information on this study whenever required by any party (I&APs, Stakeholders, Authority or Proponent) and, be available to provide training on this EMP on appointment by the proponent. Lastly, the EAP should be available to make amendments or additions to this EMP in accordance with the recommendations of the EIA study.



### **3. ENVIRONMENTAL MANAGEMENT REQUIREMENTS**

The successful implementation of this EMP is depends on various factors, training and awareness, a good record keeping, enforcements and monthly reporting.

#### **3.1 Environmental awareness training**

All employees, contractors and sub-contractors involved in any work at the project should be briefed on their obligation towards environmental protection and methodologies in terms of the EMP prior to work commencing. The briefing should be done by the proponent prior to any work in the form of an onsite talk. Record of such trainings should be kept.

#### **3.2 Record keeping**

There should be an up-to-date filing system for the project whereby method statements, environmental incidents report, training records, audit reports and public complaints register are kept. It is advised that photographs of the site should be taken as a visual reference. These records should be kept for a minimum of **two (2) years**.

#### **3.3 Enforcements: Non-compliance and penalties**

This EMP upon approval by MET shall be considered a legally bidding. In cases of transgressions and non-compliance to the EMP, the transgressor should be liable to a penalty fine. Transgressions should be recorded in a dedicated register and be filed. The Proponent shall issue the penalties in terms of the severity of the environmental damages.

Adherence to this EMP during the operation of the project will ensure that the environmental impacts associated with the project will be mitigated to a greater extent thus promoting sustainable development. The commitment and co-operation of the identified responsible person(s) will ensure effective implementation of the EMP.

#### **3.4 Environmental Reports**

The proponent shall, in the project completion report, indicate the environmental performance and matter of incidental. The EAP shall conduct regular monitor of project activities during all project phases and keep records. These records may be required by the competent authority when deemed necessary.

## 4. LEGAL REQUIREMENTS

As part of implementation of this EMP, the proponent must comply with the requirements of various national legislations and municipal by-laws as outlined in the Scoping Report and briefly presented here below.

Table 1: Applicable National Laws

LEGISLATION	PROVISION AND REQUIREMENTS
<b>Constitution of the Republic of Namibia (1990)</b>	<p>National objectives</p> <ul style="list-style-type: none"> <li>-Guarding against overutilization of biological natural resources,</li> <li>- Limiting over-exploitation of non-renewable resources,</li> <li>- Ensuring ecosystem functionality,</li> <li>- Maintain biological diversity.</li> </ul>
<b>Local Authorities Act, No. 23 of 1992 as amended</b>	<p>Provide for the determination, for purposes of local government, of local authority councils; the establishment of such local authority councils; and to define the powers, duties, and functions of local authority councils; and to provide for incidental matters.</p> <p><b>According to Section 94 of the Act, the collection and disposal of waste is the responsibility of local and regional authorities. The Act also gives power to the Local Authorities to establish by-laws.</b></p>
<b>Pollution Control and Waste Management Bill, 2003</b>	<p>This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management.</p> <p><b>The bill provide framework for a multitude administration on pollution control and waste management in the country. Each authority identified by the bill shall play its respective roles.</b></p>
<b>Environmental Management Act, No.07 of 2007</b>	<p>Ensuring that the significant effects of activities on the environment are considered carefully and in time. To promote the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment.</p> <p><b>The proponent shall inform the competent authority of any changes to the proposed school facilities, to see if an EIA is required or not.</b></p>
<b>Public Health and Environmental Act, 2015</b>	<p>The objectives of the PHE Act are to.</p> <ul style="list-style-type: none"> <li>• Promote public health and wellbeing.</li> <li>• Prevent injuries, diseases, and disabilities.</li> <li>• Protect individuals and communities from public health risks.</li> <li>• Encourage community participation to create a healthy environment.</li> <li>• Provide for early detection of diseases and public health risks</li> </ul> <p><b>Section 2 requires that a). “Every local authority must take necessary reasonably and applicably measures to maintain its local authority area at all times in a hygienic and clean condition” b). Prevent occurrence of a health nuisance, unhygienic</b></p>

	<p><b>condition, an offensive condition or any condition which could be harmful or dangerous to the health of a person within its local authority or the local authority area of another local authority”</b></p>
<p><b>Labour Act (No 11 of 2007)</b></p>	<p>To establish a comprehensive labour law for all employers and employees; to entrench fundamental labour rights and protections. Regulate basic terms and conditions of employment; 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 or the systematic prevention and resolution of labor disputes.</p> <p><b>Any employment provided whether by the proponent or by contractor at this site i.e., Security Services must be in accordance with the Labor Act.</b></p>
<p><b>Employment Service Act, 8 of 2011</b></p>	<p>To provide for the establishment of the National Employment Service; to impose reporting and other obligations on certain employers and institutions; to provide for the licensure and regulation of private employment agencies; and to deal with matters incidental thereto.</p> <p><b>Any employment provided whether by the proponent or by contractor at this site must be in accordance with the Labour Act.</b></p>
<p><b>Water Resources Management Act 2004</b></p>	<p>This Act provides provision for the control, conservation and use of water for domestic, agricultural, urban, and industrial purposes. In addition, the Act clearly gives provision that pertain with license or permit that required abstracting and using water as well as for discharge of effluent.</p> <p><b>The effluent of human waste under this framework is the focus; the use of mobile toilets during construction phase should be properly positioned. Permanent ablution facilities for the school should be connected to the septic tank and a Wastewater discharge permit should be obtained from MAWLR. No discharge of raw wastewater in the open environment is allowed</b></p>
<p><b>National Heritage Act 27 of 2004</b></p>	<p>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.</p> <p>Any material of cultural, heritage or archaeological importance shall be reported to the National Heritage Council (NHC) in accordance with this Act</p>
<p><b>National Forestry Act, No. 12 of 2001</b></p>	<p>This Forest Act 12 of 2001 requires that tree species and any vegetation within 100 m from a watercourse may not be removed without a permit (S 22 (1)).</p> <p><b>Ensure compliance to the requirement of this Act to avoid transgression. Protected species observed at the site must be incorporated in the design and be part of the landscape</b></p>

<p><b>Atmospheric Pollution Prevention Ordinance, no. 11 of 1976</b></p>	<p>To provide for the prevention of the pollution of the atmosphere, and for matters incidental thereto. The Ordinance deals with administrative appointments and their functions; the control of noxious or offensive gases; atmospheric pollution by smoke, dust control, motor vehicle emissions; and general provisions.</p> <p><b>According to the Ordinance, the Local Authority shall control and prevent atmospheric air pollution or emission of noxious or offensive gases by smoke.</b></p>
<p><b>Hazardous Substance Ordinance of 1974</b></p>	<p>This Ordinance provides for the control of toxic substance and thus also relevant for pollution control. It covers for the manufacturing, sale, use, disposal, dumping, importing, and exporting of hazardous waste.</p> <p>Any use of hazardous substance must follow this ordinance</p>
<p><b>Communal Land Reform Act of 2002</b></p>	<p>To provide for the allocation of rights in respect of communal land; to establish Communal Land Boards; to provide for the powers of Chiefs and Traditional Authorities and boards in relation to communal land; and to make provision for incidental matters.</p> <p>Consent Letters from the village headman and TA has been obtained. Application for Leasehold from CLB is in process.</p>

## 5. IMPLEMENTING THE EMP: ROLES AND RESPONSIBILITIES

The proponent should play a pivotal role in implementing this EMP. This section provides a way the EMP is to be implemented and outlining responsibilities of all parties involved perform their respective roles in accordance with this EMP.

**Table 3: Management Plan: Construction Phase**

Environmental Issue/Impacts	Mitigation Measures	Monitoring	Responsibilities
<b>Impact on biodiversity (flora and fauna)</b>	<ul style="list-style-type: none"> <li>Only vegetation that are directly affected by the project may be cleared.</li> <li>The initial design must include open spaces for planting trees and shrubs.</li> <li>Protected species should be marked and incorporated in the development as part of the landscaping/gardening.</li> <li>No animal must be trapped, killed for any purpose of whatsoever.</li> </ul>	Weekly/Monthly review of Monitoring should be done through Environmental Incidents reported as well as corrective action taken on prescribed form Annexure B. All incidences and corrective action should be documented in a report	Contractor/Proponent
<b>Impact on groundwater, surface water and soil contamination</b>	<ul style="list-style-type: none"> <li>Spill control structures and procedures must be in place according to SANS standards or better and connection of all surfaces where fuel is handled, with an oil water separator.</li> <li>All fueling should be conducted on surfaces provided for this purpose. E.g., Concrete slabs with regularly maintained seals between slabs.</li> <li>The procedures followed to prevent environmental damage during service and maintenance, and</li> </ul>	A report should be compiled bi-annually of all spills or leakages reported. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, comparison of pre-exposure baseline data (previous pollution conditions survey results) with post	Contractor/Proponent/Project Manager

	<p>compliance with these procedures, must be audited and corrections made where necessary.</p> <ul style="list-style-type: none"> <li>• No direct discharge of pollution (wastewater or solid waste) into the water sources.</li> <li>• Do not park vehicles or implements with leaking oil/pollutants next to the riverbeds.</li> <li>• With regards to temporary settlement at the site (if allowed), the project manager must ensure that contractors have proper temporary sanitation measures on site and any spillage must be monitored and attended to.</li> <li>• Minimize soil exposure time during construction and avoid excessive compaction of soil by setting designated access roads for heavy vehicles.</li> <li>• Minimize the use of chemicals such as lubricants, solvents, and petroleum products</li> </ul>	<p>remediation data (e.g., soil/groundwater hydrocarbon</p>	
<p><b>Waste generation</b></p>	<ul style="list-style-type: none"> <li>• All waste generated must be contained and properly dumped at the waste dumping site.</li> <li>• The contractor's managers must create awareness among all employees regarding waste disposal to avoid illegal dumping.</li> <li>• Waste reduction measures should be implemented and all waste that can be re-used / recycled must be kept separate.</li> <li>• Ensure adequate disposal storage facilities are available.</li> </ul>	<p>A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility. All information and reporting to be included in a bi-annual report.</p>	<p>Proponent/Contractor/Project Manager</p>

	<ul style="list-style-type: none"> <li>• Prevent scavenging (human and non-human) of waste storage.</li> </ul>		
<b>Dust and atmospheric pollution</b>	<ul style="list-style-type: none"> <li>• Avoid too much dust by sprinkling the construction site with water regularly.</li> <li>• Ensure proper maintenance of vehicles and equipment to minimize release of fumes and other pollutants in the air.</li> <li>• Mix material in an enclosed space</li> <li>• Cover material when transporting.</li> <li>• Prohibit open burning in accordance with Air Pollution Control Ordinance.</li> <li>• Personnel should be issued with appropriate masks where excessive dust or vapors are present.</li> <li>• Vent pipes must be properly placed as per SANS requirements.</li> </ul>	Any complaints received regarding dust or fuel vapors should be recorded with notes on action taken. All information and reporting to be included in a bi-annual report.	Project Manager/Proponent/Contractor
<b>Traffic Management</b>	<ul style="list-style-type: none"> <li>• The contractors must ensure to use clear road signs at construction sites to minimize risks of accidents.</li> <li>• Limit the use of vehicles to the site and avoid unnecessary trips.</li> <li>• Regular communication between the proponent and neighboring land users about traffic issues should be encouraged.</li> </ul>	All incidences and corrective action should be documented in a report.	Project Manager/Proponent/Contractor
<b>Noise and Vibration Management</b>	<ul style="list-style-type: none"> <li>• Provide employees with Personal Protective Equipment (i.e., earmuffs)</li> </ul>	Adhere to the WHO Guidelines. Maintain complaints register. Bi-annual report on complaints and	Proponent/Contractor/Project Manager

	<ul style="list-style-type: none"> <li>• Follow World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment.</li> <li>• All machinery must be regularly serviced to ensure minimal noise production.</li> <li>• Hearing protectors as standard PPE for workers in situations with elevated noise levels.</li> </ul>	actions taken to address complaints and prevent future occurrences.	
<b>Occupation health and Safety</b>	<ul style="list-style-type: none"> <li>• Provide all employees with required and adequate personal protective equipment (PPE).</li> <li>• Clearly label dangerous and restricted areas as well as dangerous equipment and products.</li> <li>• Provision of firefighting measures in accordance with Labor Act</li> <li>• Appoint Safety Officer in accordance with Labor Act.</li> <li>• Always provide fencing around the construction site. Equipment that will be locked away on site must be placed in a way that does not encourage criminal activities (e.g., theft).</li> <li>• Ensure that all personnel receive adequate training on operation of equipment / handling of hazardous substances.</li> <li>• All Health and Safety standards specified in the Labour Act should be complied with.</li> <li>• Strict security that prevents unauthorized entry.</li> </ul>	Any incidents must be recorded with action taken to prevent future occurrences.	Proponent/Contractor/Project Manager



<b>Workers' sanitation</b>	<ul style="list-style-type: none"> <li>• One sanitary facility (1 toilet with shower, 1 washing basin, 1 urinal) per 25 workers</li> <li>• Sanitary facilities to be covered, easily accessible, ventilated, well lit, maintained, and sanitized.</li> <li>• Ensure safe drinking water for employees</li> </ul>	Any incidents must be recorded with action taken to prevent future occurrences.	Proponent/Project Manager/Contractor
<b>Water Demand</b>	<ul style="list-style-type: none"> <li>• Commit to minimizing the use of water during construction works.</li> <li>• Recycle water for construction activities</li> </ul>	Any incidents must be recorded with action taken to prevent future occurrences.	Proponent/Project Manager/Contractor
<b>Archaeological resources</b>	<ul style="list-style-type: none"> <li>• Should there be any suspected archaeological findings during construction, it must be reported to the NHC in accordance with National Heritage Act.</li> </ul>	Any incidents must be recorded with action taken to prevent future occurrences.	Proponent/Project Manager/NHC
<b>Employment opportunities</b>	<ul style="list-style-type: none"> <li>• If the skills exist locally, employees must first be sourced locally, then the region and then nationally. Deviations from this practice must be justified.</li> </ul>	Have a report and review of employee demographics	Proponent/Project Manager/Contractor

**Table 5: Proposed Mitigation Measures: Operation**

Environmental Issue/Impacts	Mitigation Measures	Monitoring	Responsibilities
<p><b>Groundwater, Surface Water and Soil Contamination</b></p>	<ul style="list-style-type: none"> <li>• Spill control structures and procedures must be in place according to SANS standards or better and connection of all surfaces where fuel is handled, with an oil water separator.</li> <li>• All fueling should be conducted on surfaces provided for this purpose. E.g., Concrete slabs with regularly maintained seals between slabs.</li> <li>• The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary.</li> <li>• Proper training of operators must be conducted on a regular basis (Fuel handling, spill detection, spill control).</li> <li>• Any spillage of more than 200 liters must be reported to the relevant authorities.</li> <li>• Spill clean-up means must be readily available on site as per the relevant MSDS.</li> <li>• Any spill must be cleaned up immediately.</li> <li>• The spill catchment traps, and oil water separator should be cleaned regularly, and waste disposed of at a suitably classified hazardous waste disposal facility.</li> <li>• Surfactants (soap) may not be allowed to enter the oil water separator e.g., soap usage on spill control surfaces.</li> </ul>	<p>Inspection holes at the ends of the tanks must as a minimum be inspected every 14 days and measurements must be recorded for future reference. A report should be compiled bi-annually of all spills or leakages reported. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, comparison of pre-exposure baseline data (previous pollution conditions survey results) with post remediation data (e.g., soil/groundwater hydrocarbon concentrations) and a copy of documentation in which spill was reported to Ministry of Mines and Energy.</p>	<p>Proponent/Contractor's</p>

	<ul style="list-style-type: none"> <li>• No direct discharge of pollution (wastewater or solid waste) into the waterbodies.</li> <li>• Do not park vehicles or implements with leaking oils next to the waterbodies.</li> <li>• Ensure that sanitary facilities are frequently cleaned and regularly monitored.</li> <li>• Only use cleaning detergents that are environmentally friendly</li> </ul>		
<b>Water and Energy demand</b>	<ul style="list-style-type: none"> <li>• Ensure supply of potable water.</li> <li>• Harvest rainwater for use in gardening and other activities</li> <li>• Provide solar panels to provide energy.</li> <li>• Enforce energy and water conservation measures</li> </ul>	A report should be compiled every 6 months of all complaints received and actions taken.	Proponent
<b>Ecosystem and Biodiversity Impact</b>	<ul style="list-style-type: none"> <li>• Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts.</li> <li>• Avoid scavenging of waste by fauna.</li> <li>• The establishment of habitats and nesting sites at the facility should be avoided where possible.</li> </ul>	Report any extraordinary sightings to the Ministry of Environment and Tourism. All information and reporting to be included in a bi-annual report.	Proponent
<b>Air Quality</b>	<ul style="list-style-type: none"> <li>• Personnel issued with appropriate masks where excessive dust or vapors are present.</li> <li>• Employees should be coached on the dangers of fuel vapors.</li> <li>• Vent pipes must be properly placed as per SANS requirements.</li> </ul>	A complaints register should be kept for any dust related issues and mitigation steps take to address complaints where necessary e.g., dust suppression. Any complaints received regarding dust or fuel vapors should be recorded with notes on action taken.	Proponent /Contractor

		All information and reporting to be included in a bi-annual report.	
<b>Waste generation</b>	<ul style="list-style-type: none"> <li>Waste should be disposed of regularly and at appropriately classified disposal facilities, this includes hazardous material (empty chemical containers, contaminated rugs, paper, water, and soil).</li> <li>The spill catchment traps, and oil water separator should be cleaned regularly, and waste disposed of appropriately. Surfactants (soap) may not be allowed to enter the oil water separator.</li> <li>See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers.</li> <li>All hazardous waste should be transported to Walvis Bay for proper handling.</li> <li>Waste reduction measures should be implemented and all waste that can be re-used /recycled must be kept separate.</li> <li>Ensure adequate disposal storage facilities are available.</li> <li>Ensure waste is not blown away by wind.</li> <li>Prevent scavenging (human and non-human) of waste storage.</li> </ul>	A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility. Any complaints received regarding waste should be recorded with notes on action taken. The oil water separator must be regularly inspected, and all hydrocarbons removed once detected. Outflow water must comply with effluent quality standards. All information and reporting to be included in a bi-annual report.	Proponent/Contractor
<b>Noise</b>	<ul style="list-style-type: none"> <li>Follow World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment.</li> </ul>	Maintain complaints register. Bi-annual report on complaints and actions taken to address	Proponent/Contractor

	<ul style="list-style-type: none"> <li>• Keep volume of public address systems on a level where neighbors are not impacted on.</li> <li>• Manage noise caused by clients/customers – loud music etc.</li> <li>• Hearing protectors as standard PPE for workers in situations with elevated noise levels.</li> </ul>	complaints and prevent future occurrences.	
<b>Fire</b>	<ul style="list-style-type: none"> <li>• A holistic fire protection and prevention plan is needed. This plan must include an emergency response plan, firefighting plan, and spill recovery plan.</li> <li>• Special note must be taken of the regulations stipulated in sections 47 and 48 of the Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990).</li> <li>• Maintain firefighting equipment, good housekeeping, and personnel training (firefighting, fire prevention and responsible housekeeping practices).</li> <li>• Ensure all chemicals are stored according to MSDS and SANS instructions.</li> <li>• Maintain regular site, mechanical and electrical inspections, and maintenance.</li> <li>• Clean all spills / leaks.</li> <li>• Special note must be taken of the regulations stipulated in sections 47 and 48 of the Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990).</li> <li>• Follow SANS standards for operation and maintenance of the facility.</li> <li>• All dispensers must be equipped with devices that cut fuel supply during fires.</li> </ul>	A register of all incidents must be maintained daily. This should include measures taken to ensure that such incidents do not repeat themselves. A report should be compiled every 6 months of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested, and training given.	Proponent/Contractor

<b>Demographic Profile and Community Health</b>	<ul style="list-style-type: none"> <li>• Prohibit illegal parking on and around the site.</li> <li>• Prohibit public drinking of alcoholic substances on the site and draft a response plan (which may include security personnel) to deal with intoxicated individuals on site.</li> <li>• Educational programmed for employees on HIV/AIDs and general upliftment of employees' social status.</li> <li>• Appointment of reputable contractors.</li> <li>• Employ response plan when needed.</li> </ul>	Facility inspection sheet for all areas which may present environmental health risks, kept on file. Bi-annual summary report based on educational programmed, and training conducted. Bi-annual report and review of employee demographics.	Proponent
<b>Traffic Impact</b>	<ul style="list-style-type: none"> <li>• Erect clear signage regarding access and exit points at the facility. Clear indications of fuel deliveries and related down-time communicated to motorists.</li> <li>• Tanker trucks delivering fuel should not be allowed to obstruct any traffic in surrounding streets.</li> <li>• Have parking spaces for motorists utilizing the shop and offices.</li> <li>• The placement of signs to warn and direct traffic will mitigate traffic impacts.</li> </ul>	Any complaints received regarding traffic issues should be recorded together with action taken to prevent impacts from repeating itself. A report should be compiled every 6 months of all incidents reported, complaints received, and action taken.	Proponent
<b>Public Health and Safety</b>	<ul style="list-style-type: none"> <li>• Ensure general cleanliness of the building, most importantly the sanitary facilities.</li> <li>• Selected personnel should be trained in first aid and a first aid kit must be available on site.</li> <li>• The contact details of all emergency services must be readily available.</li> <li>• Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool, which includes color coding of pipes, operational, safe work, and medical procedures, permits to work, emergency</li> </ul>	Any incidents must be recorded with action taken to prevent future occurrences. A report should be compiled every 6 months of all incidents reported. The report should contain dates when training was conducted and when safety equipment and	Proponent

	<p>response plans, housekeeping rules, MSDS's and signage requirements (PPE, flammable etc.).</p> <ul style="list-style-type: none"> <li>• Security procedures and proper security measures must be in place to protect workers and clients, especially during cash in transit activities.</li> <li>• Reduce the amount of cash kept on site to reduce the risk of robberies.</li> </ul>	structures were inspected and maintained.	
<b>Visual Impact</b>	<ul style="list-style-type: none"> <li>• Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure that the longevity of structures is maximized, and a low visual impact is maintained.</li> </ul>	A report should be compiled every 6 months of all complaints received and actions taken.	Proponent/Contractor
<b>Cumulative Impact</b>	<ul style="list-style-type: none"> <li>• Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact.</li> <li>• Reviewing biannual and annual reports for any new or re-occurring impacts or problems would aid in identifying cumulative impacts and help in planning if the existing mitigations are insufficient</li> </ul>	Annual summary report based on all other impacts must be created to give an overall assessment of the impact of the operational phase.	Proponent
<b>Fuel Supply</b>	<ul style="list-style-type: none"> <li>• Ensure compliance to the petroleum regulations of Namibia.</li> <li>• Proper management to ensure constant supply.</li> <li>• Record supply problems and take corrective actions.</li> </ul>	Record supply problems and corrective actions taken and compile a bi-annual summary report.	Proponent
<b>Skills, technology, and Development</b>	<ul style="list-style-type: none"> <li>• If the skills exist locally, contractors must first be sourced locally, then the region and then nationally. Deviations from this practice must be justified.</li> <li>• Skills development and improvement programs to be made available as identified during performance assessments.</li> </ul>	Record should be kept of training provided. Ensure that all training is certified, or managerial reference provided (proof provided to the employees) inclusive of training attendance,	Proponent/Contractor

	<ul style="list-style-type: none"> <li>Employees to be informed about parameters and requirements for references upon employment. Give priority to local people</li> </ul>	completion, and implementation.	
<b>Employment opportunities</b>	<ul style="list-style-type: none"> <li>The proponent must employ local Namibians where possible. Deviations from this practice must be justified.</li> </ul>	Bi-annual summary report based on employee records.	Proponent



## **6. ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)**

An Environmental Management System (EMS) is an internationally recognized and certified management system the organization's environmental programs in a comprehensive, systematic, planned, and documented manner. The proponent should develop and implement an EMS for the operations of the fuel retail facility. An EMS ensures ongoing incorporation of environmental constraints. With the aim to improve the environmental performance with resulting increases in operational efficiency, financial savings, and reduction in environmental, health and safety risks.

The key elements of an effective EMS are:

- The development of an Environmental Policy, which is a statement of a company's commitment to the environment and can be used as a framework for planning and action.
- An assessment of corporate activities, products, processes, and services that might affect the environment.
- Details of environmental regulations and legislation that apply to the business and how to comply with these.
- Written procedures to control and document activities that could have a significant environmental impact.
- An environmental improvement Programme, including policies and procedures to manage waste and resources.
- Defined environmental roles and responsibilities for staff.
- A formal and recorded staff training and environmental awareness Programme.
- Systems for internal and external communications on environmental management issues.
- A record of environmental performance against set targets.
- Systems to identify and correct problems and prevent their recurrence.
- Emergency procedures to follow in the event of an environmental incident.
- Periodic audit to verify that the EMS is operating as intended; and
- Formal review by senior management with a view to adapting and improving the EMS as necessary.

## 7. ENVIRONMENTAL MONITORING

To ensure continual improvement in environmental performance and reduce adversity of potential negative impacts, it is advisable to keep monitoring the identified environmental receptors.

### 7.1 Monitoring during construction phase

Monitoring of all activities during the construction period will be under the responsibility of the Contractor, whose environmental performance will be controlled by the Local Authority

Element	Location	Type of monitoring	Frequency of monitoring	Purpose of monitoring
<b>Dust</b>	In the construction sites	Visual monitoring	During periodic site visits	To ensure adherence to environmental protection requirements
<b>Wastewater flows generated in the construction sites</b>	In the construction sites	Visual monitoring	During monthly site visits	To ensure adherence to environmental protection requirements
<b>Collection of solid waste</b>	In the construction sites	Visual monitoring	During periodic site visits	To ensure adherence to environmental protection requirements
<b>Use of dangerous materials (paints with heavy metals, lead compositions, asbestos-cement slabs, pipes, inflammable, and toxic substances etc.)</b>	In the construction sites with right documentation	Visual monitoring and study of documentation	Each month	To ensure adherence to environmental protection requirements
<b>Protective measures in the construction site</b>	In the construction sites with right documentation	Visual monitoring	Each month	To ensure adherence to environmental protection and safety requirements
<b>Earth restoration after excavation works</b>	In the construction sites	Visual monitoring	At completion of construction works	To ensure adherence to environmental protection requirements
<b>Noise &amp; vibrations resulting from equipment work</b>	Project area/close to settlements	Portative noise metering device	During periodic site visits, on daily basis	To ensure adherence to environmental protection requirements
<b>Traffic operation /movement</b>	In the construction sites	Visual monitoring of machinery and trucks carrying construction materials	During periodic site visits	To ensure adherence to environmental protection requirements
<b>Vehicle and pedestrian safety when there is no construction activity</b>	In the construction sites	visual monitoring by supervisor	On daily basis during	To ensure adherence to requirements

## 7.2 Monitoring during operation phase

During the operation phase the operator must ensure that compliance monitoring is conducted at different interval/frequencies throughout the operational life span as indicated in the table below.

Table 2: Monitoring Plan during operation phase

Issue to be monitored	Monitoring Objectives	What need to be monitored	Frequency and means of Monitoring
<b>Emergency reponne plan</b>	Ensure preparedness in case of emergency	-Functioning of fire fighting equipment	Weekly inspections and meter reading
<b>Soil and groundwater contamination</b>	Avoid any source of contamination	Oil leakages, spills etc.	Monthly inspections and physical observation.
<b>Occupational health risks</b>	Ensure health and safe working condition	Chemical exposure and presence of health hazards	Daily physical observations.
<b>Waste management</b>	Prevent environmental pollution and contamination.	Litter chemical storage & handling, cleanliness, Chemical composition of sludge.	Daily inspections and physical observation. -quarterly chemical testing
<b>Implementation of the EMP</b>	Ensure compliance to this EMP and adherence to the regulative measures during planning & design, construction, operation, and maintenance and decommissioning of the proposed fuel station.	Implementation of specified measures and compliance to the EMP and other relevant legal requirements.	Biannual environmental report to MEFT.

## **8. EMERGENCY RESPONSE PLAN**

This section provides an emergency response plan which entails types and effects of emergencies associated with the proposed project as well as procedures and actions to be taken in case of emergency during the operation phase.

### **8.1 Type and source of emergency**

Emergencies can occur at any time or place either during construction, operation, and maintenance of the fuel retail station. These emergency situations may disrupt the operation of the facility and might lead to financial losses to the proponent. The main emergency that may occur during operation of a fuel retail station are.

- Fire outbreak
- Significant spillage of flammable fuel
- Explosion
- Contamination of clothing of client or personnel with petrol
- Injury to client or personnel on site
- Threat of violence, personal injury, or robbery

### **8.2 Emergency response procedures**

Depending on the nature of the emergency, the following response plan must be implemented as an integral part of the WTP routine operations to lessen the severity of the emergency. All response actions should be geared toward the following priorities in the order below.

- Safety of People (always First)
- Protection of the Environment
- Protection of Assets

**Table 3: Emergency Response procedures**

Emergency	Response Action
Fire outbreak or Explosion	<ul style="list-style-type: none"> <li>• Do not panic, Press the nearest alarm button</li> <li>• Rescue any person in immediate danger, if safe to do so</li> <li>• If possible, commence fighting the fire, else call fire brigade</li> <li>• Leave the building by the nearest emergency exit</li> <li>• Ensure all other personnel are warned along the way</li> <li>• Do not stop to collect personal belongings</li> <li>• Report to the assembly point</li> <li>• Do not return to the building until authorized to do so</li> </ul>
Significant spillage of flammable fuel	<ul style="list-style-type: none"> <li>• Contain the spill/leakage with appropriate containers i.e., drip trays, sumps etc., and in approved manner to the satisfaction of the RE.</li> <li>• Clean the affected area with water or approved cleaning product.</li> <li>• The contaminated soil should be removed and dispose of to the Eenhana dumpsite</li> <li>• Repair vehicle or machinery with leakage.</li> <li>• If it cannot be repaired, such vehicle or machinery should not be used until it is safe to do so.</li> <li>• Report the incident to the superior and record in the logbook.</li> </ul>
Contamination of clothing of client or personnel with petrol	<ul style="list-style-type: none"> <li>• Take the victim far away from flammable materials</li> <li>• Carefully remove the contaminated cloth</li> </ul>
Injury to client or personnel on site	<ul style="list-style-type: none"> <li>• The priority after a construction accident should be to get medical attention for an injured person.</li> <li>• Assess the injured person situation by checking breath, pulse.</li> <li>• Notify the First Aid Person</li> <li>• Assist the First Aid Personnel</li> <li>• Record in the incident report form.</li> </ul>
Threat of violence, personal injury, or robbery	<ul style="list-style-type: none"> <li>• Give the robber what he demands</li> <li>• Be calm, alert and observant</li> <li>• Write down the details of the robber i.e., vehicle registration, color, type etc., as soon as possible as soon as he has gone</li> <li>• Telephone the police and do not touch anything that might carry the robber's fingerprints</li> </ul>
Power failure	<ul style="list-style-type: none"> <li>• Ensure there is an emergency power supply capable of maintaining minimum operations.</li> <li>• The emergency power equipment should be checked at least monthly to ensure that they remain in good operating condition.</li> <li>• Provide a log to document a monthly check of emergency power supply operation.</li> <li>• In case of power loss.               <ul style="list-style-type: none"> <li>○ Check if power failure is local (site) or the whole suburb/town.</li> <li>○ If the whole town, contact NORED.</li> <li>○ If locally, inspect the source of power loss, restart main switch.</li> </ul> </li> </ul>

## **8. CONCLUSION**

The preparation of this EMP is based on the initial designs and current information provided, any changes or deviation from the initial plan of this project shall trigger changes to this EMP. If all mitigation measures are implemented as outlined in the EMP, it is anticipated that the consequences and/or probability of the predicted negative impacts will be managed/reduced.

Upon approval by the authorities, this EMP shall be considered legally binding and any deviation or transgression from this EMP is punishable by law as per the Environmental Management Act, No. 07 of 2007. A copy of this EMP shall be always kept by the proponent or responsible person/department.

Although the implementation of this EMP requires a multitude of administration, the proponent should play a pivotal role in the implementation of this EMP as outlined in the report. The proponent should therefore ensure proper coordination with other stakeholder and may provide training to all parties when necessary. The proponent should also ensure to avail necessary resources (i.e., human, financial etc.) and synergies to enable the implementation of this ESMP.

Lastly, this EMP is valid until the project has been successfully implemented. Moreover, the competent authority is mandated to conduct regular monitoring and inspections on this project. The proponent is liable to provide regular (annually) reports on this project or as required by the authority.

## **9. ANNEXURES**

**9.1 Appendix A: Emergency Contacts**

**9.2 Appendix B: Incident report Form**

## Appendix A; Emergency Contacts

Aspect of Danger	Service Provider	Contacts
<b>Fire</b>	<ul style="list-style-type: none"> <li>Eenhana Fire Brigade</li> </ul>	<ul style="list-style-type: none"> <li>065 290 600</li> </ul>
<b>Oil spills</b>	<ul style="list-style-type: none"> <li>Fire Brigade</li> </ul>	<ul style="list-style-type: none"> <li>065 290 600</li> </ul>
<b>Injuries or loss of life</b>	<ul style="list-style-type: none"> <li>Intensive Therapy Unit Ambulance</li> <li>Namibia Private Ambulance Services</li> <li>MoHSS</li> </ul>	<ul style="list-style-type: none"> <li>081 444 7807</li> <li>081 9696</li> <li></li> </ul>
<b>Theft or Robbery</b>	<ul style="list-style-type: none"> <li>NAMPOL</li> </ul>	<ul style="list-style-type: none"> <li>065 264 247</li> </ul>
<b>Power failure</b>	<ul style="list-style-type: none"> <li>NORED</li> </ul>	<ul style="list-style-type: none"> <li>083 282 2603</li> </ul>
<b>Traffic accident</b>	<ul style="list-style-type: none"> <li>NAMPOL</li> <li>RA</li> </ul>	<ul style="list-style-type: none"> <li>065 264 247</li> <li>0818797023</li> </ul>



## Annexure B: Incident / Accident report form

This form is to be completed in case of environmental incident during operation and maintenance phase.

Section 1. GENERAL DETAILS	
<b>Date:</b> <b>Time:</b> am / pm	<b>Reported By:</b> <b>Name:</b> <b>Position:</b> <b>Company:</b> <b>Phone:</b>

Section 2. RESPONSIBLE PARTIES	
<b>Name:</b>	<b>Phone:</b>
<b>Company Name:</b>	<b>Email:</b>
<b>Witness Details (if applicable)</b>	
<b>Name:</b>	<b>Phone:</b>
<b>Witness Statement Taken?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	

Section 3. INCIDENT DETAILS	
<b>Type of Incident:</b>	<input type="checkbox"/> Spill <input type="checkbox"/> Waste/rubbish <input type="checkbox"/> Wildlife disturbance <input type="checkbox"/> Vegetation disturbance/damage <input type="checkbox"/> Acid Sulphate Soils disturbance <input type="checkbox"/> Cultural Heritage disturbance/damage <input type="checkbox"/> Chemicals / herbicide Use <input type="checkbox"/> Water pollution/contamination <input type="checkbox"/> Nuisance (noise, air quality) <input type="checkbox"/> Other:
<b>Incident Description</b>	
<b>Immediate Response Actions Taken:</b>	

**Section 4. CONTRIBUTING FACTORS AND PREVENTATIVE ACTIONS****(to be completed by Manager/Supervisor)**

<b>Cause, Circumstances and Contributing Factors:</b>			
<b>Measures that were in place to prevent this type of incident:</b>			
<b>Measures to be implemented to prevent/minimise this type of incident occurring again</b>			
<b>Comments:</b>			
<b>Name:</b>			<b>Position:</b>
<b>Company:</b>	<b>Signature:</b>	<b>Date:</b>	

**Section 5. NAMWATER ENVIRONMENT OFFICE ONLY**

<b>Assessed Level of Potential or Actual Harm:</b>			
<b>Is an Investigation Required?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Investigation Team:</b>		
<b>FOLLOW UP ACTION:</b>			
<b>COMMENTS</b>			
<b>Name:</b>			<b>Position:</b>
<b>Signature:</b>			<b>Date:</b>