ENVIRONMENTAL IMPACT ASSESSMENT (SCOPING) REPORT

THE PROPOSED CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONIIPA, OSHIKOTO REGION, NAMIBIA

ENVIRONMENTAL CONSULTANT:	PROPONENT:
NAM GEO-ENVIRO SOLUTIONS P.O.BOX 3343 WINDHOEK TEL: 061402246 EMAIL ADDRESS: info@geoenvirosol.co.za	**TRANSPETRO GROUP NAMIBIA PTY (LTD)** P.O.BOX 837 ONDANGWA EMAIL: jmtrading@iway.na
EAP:	**NDAPANDA HASHOLO**
REVIEWER:	**ZEEUW MUKUVE (DIRECTOR, NGS)**

DATE: MARCH 2024

ECC APP NO: 003114

Executive summary

Transpetro Group Namibia Pty Ltd (the proponent) has proposed to construct and operate a fuel bulk storage and handling facility (depot) at Oniipa in Oshikoto region. The proposed site of the project is situated along the B1 road between Oniipa and Ondangwa. The fuel depot will consist of two fuel (diesel) storage tanks, each with a capacity of 46000L. The fuel will be stored in above-ground storage tanks, enclosed in bund walls.

The activities of this project are part of the listed activities which may not be undertaken without conducting an EIA in terms of Section 27 of the Environmental Management Act (EMA) and its regulations (2012). Nam Geo-Enviro Solutions (NGS) has been appointed by Transpetro Group Namibia Pty Ltd as an independent environmental consultant to conduct an Environmental Impact Assessment (EIA) and compile an Environmental Management Plan (EMP) as required to meet the requisites of Namibia's EMA (No. 7 of 2007) and its Regulations (2012).

The main objective of this EIA is to determine and assess the potential significant environmental and socio-economic impacts that are likely to result from the proposed project and to engage with all the potential interested and affected parties. Interested and affected parties were invited through newspaper adverts, notice posters, public meeting, email communications, forms, and formal invitation letters. The concerns and comments of the registered I&APs were recorded and taken into consideration. A draft report of the impact assessment scoping report (ESAR) and the environmental management plan (EMP) were sent to the I&APs before submission to the Environmental Commissioner for further comments.

The impacts likely to result from the project were identified, analysed, and evaluated by using a ranking matrix in terms of their extend, duration, magnitude, and likelihood to determine their significant levels. The identified negative impacts include impact on biodiversity, dust generation, noise, emissions of hydrocarbon vapours, hydrocarbon waste, contamination of surface soil, water and ground water, risk of fire and explosions, occupational health, safety and security, generation of waste, impact on traffic, archaeology impact, risk and spread of HIV and AIDS and cumulative impacts. The positive impacts are employment creation, revenue generation and local development and improvement of general welfare.

An environmental management plan (EMP) has been formulated to take a proactive approach, aiming to address all foreseeable impacts before they cause harm to the environment. The EMP outlines various management, monitoring and mitigation measures in details, with the goal of minimizing adverse effects on the environment and fostering sustainable development. It is recommended that the proponent takes all the necessary actions to implement the EMP and minimise adverse impacts on the environment.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS

AIDS	Acquired Immuno-Deficiency Syndrome
BID	Background Information Document
EAP	Environmental Assessment practitioner
EAR	Environmental Assessment Regulations
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ECC	Environmental Clearance Certificate
ESAR	Environmental Scoping Assessment Report
HIV	Human Immuno-deficiency Virus
I&AP	Interested and Affected Parties
MEFT	Ministry of Environment, Forestry and Tourism
NGS	Nam Geo-Enviro Solutions

1. INTRODUCTION

Transpetro Group Namibia Pty (Ltd) has proposed to construct and operate a new fuel (diesel) bulk storage and handling facility (depot) at Oniipa town, Oshikoto region, Namibia. The fuel will be stored in two (2) above ground fuel storage tanks, each with a capacity of 46000L of diesel. The fuel storage tanks will be enclosed in constructed bund walls.

A fuel depot serves as a specialized facility, designed to accommodate the storage and distribution of large quantities of fuel. The primary purpose of establishing a bulk fuel storage depot is to ensure a steady and sufficient supply of fuel to meet the needs and demands of consumers.

Transpetro Group Namibia Pty (Ltd) would therefore like to acquire an Environmental Clearance Certificate (ECC), as a requirement to undertake listed activities. Based on this premise, Nam Geo-Enviro Solutions has been appointed by Transpetro Group Pty (Ltd) to conduct the Environmental Impact Assessment (EIA) for the proposed project and develop an Environmental Management Plan (EMP) in compliance with the requirements outlined in Namibia's Environmental Management Act (No. 7 of 2007) and its Regulations (2012).

The construction and operations of a bulk fuel storage and handling facility is a listed activity under the Environmental Management Act, 7 of 2007 (EMA 2007). Activities of this nature cannot commence without acquiring an Environmental Clearance Certificate (ECC).

1.1 The relevant listed activities as per EIA regulations are:

9.2 Any process or activity which requires a permit, licence or other form of authorization or the modification of or changes to existing facilities for any process or activity which requires an amendment of an existing permit, license, or authorization or which requires a new permit, licence, or authorization in terms of law governing the generation or release of emissions, pollution, effluent, or waste.
9.4 The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.
9.5 Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid petroleum, gas, or paraffin.

2. OBJECTIVES

- To evaluate the current environmental conditions on site and determine its environmental sensitivity
- To determine and assess the potential environmental impacts of the project
- To facilitate and informed, transparent, and accountable decision-making proc ess by consulting with key interested and affected stakeholders so that their concerns are considered in the information and implementation of the environmental management plan.
- Comply with the environmental Management Act No.7 of 20007 and its regulations of 2012.
- To develop an environmental management plan with measures to mitigate the project impacts
- To establish baseline environmental conditions so that relevant impacts could be projected, and sufficient mitigation measures could be designed.
- To promote sustainable development.

3. ENVIRONMENTAL ASSESSMENT PROCESS

An Environmental Assessment is a systematic and strategic planning process employed to ensure the identification of possible impacts arising from the project's activities, accompanied by the implementation of mitigation measures intended to minimize their effects.

Nam Geo-Enviro Solutions has undertaken the environmental impact assessment and formulated an Environmental Management Plan (EMP), encompassing all the various aspects of the Environmental Impact Assessment (EIA) process, as stipulated by the EIA Regulations of Namibia (2012).

4. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) METHODOLOGY

In compliance with the EMA No.7 of 2007 and its Regulations (2012), this EIA has addressed environmental, socio- economic issues and concerns associated with the proposed project. The methodology adopted for conducting this assessment are as follows:

4.1. Site observations

Nam Geo-Enviro Solutions conducted a site visit on the 27 October 2022, to gather necessary qualitative and quantitative data. During the site visit, various attributes including vegetation, site conditions, and surrounding land use were observed. Images were captured, and all observed information was noted.

4.2. Desktop research

Desk-based research was utilized to create an environmental information database for the EIA. This involved gathering materials such as books, articles, maps, internet resources, photographs, GIS datasets, previous EIA reports, and baseline reports specific to the area. Additionally, documentation regarding policies, laws, regulations, and guidelines concerning environmental management at both the national and international levels were referenced.

4.3. Mapping

The maps which relate to the area of study were generated and these include the site location map. See appendix **A** for location map.

5. PROJECT NEEDS AND DESIREBILITY

The establishment of a fuel handling and storage facility is needed to ensure a steady and efficient supply of diesel, to meet the needs and demands of consumers. The motivation for Namibia to support the project is economic and strategic in nature. The project has the potential to benefit the country, society and surrounding communities both directly and indirectly. Direct economic benefits will be derived from wages and indirect economic benefits will be derived from the increased spending power of employees through the creation of new jobs at the fuel depot installation and storage facility. Job opportunities will be created during the life span of the project. The type of jobs will range from skilled, semi-skilled and unskilled. During the construction phase, contractors, sub-contractors, and service providers are going to be employed. Moreover, during the operation phase, people are also going to be employed and locals should be the priority.

The Harambee Plan for Prosperity [HPP] has been developed to complement the National Development Plans and Vision 2030. One of the aims of the HPP is to promote economic advancement. The HPP states that the most effective way to address poverty is through wealth creation, which in turn is done by growing the economy in a sustainable inclusive manner and through the creation of decent employment opportunities. It is vital to point out that, by promoting the fuel depot project, we will be promoting the aims for the Harambee Plan for Prosperity by providing jobs and contribute to the GDP of the country.

6. PROJECT SITE DESCRIPTION

The fuel depot is proposed to be constructed and operated at Onamulunga in Oniipa town, Oshikoto region. The site is situated along the B1 road, between Ondangwa and Oniipa. The site falls in the following coordinates: 17.94374 S; 16.04539 E.

Currently, there are existing buildings on site, however, these structures will be demolished to make way for the depot. **Figure 1** below shows the current state of the proposed project location.

FIGURE 1: IMAGES OF CURRENT STATE OF THE PROJECT SITE

6.1. Activities occurring in the immediate surrounding environment

The main activities near the site include livestock (cattle, goats) rearing and cultivation of crops such as Mahangu, sorghum and beans, primarily for subsistence use. Additionally, there are businesses (cuca shops, shebeens) and residential areas near the site.

Adjacent to the site in the northern direction lies a residential property, approximately 500m away from the site, whereas in the southern direction, there is an undeveloped land, near a residence and a field, approximately 600m away from the site. Towards the eastern side, there are apartment buildings that will be demolished to make way for the depot, whereas towards the western side is a tarred road (B1 road) that is approximately 50m away from the proposed site, and Shebeens across the road.

Figure 2 below shows images of the surrounding land use

FIGURE 2: IMAGES OF CURRENT STATE OF THE SURROUNDING LAND USE

7. LAND TENURE

Mr Joseph Ndjembo is the leaseholder of the portion of land in **Onamulunga A, Oniipa Town and Townlands No.1164**, where the construction and operations of a proposed fuel depot will be established (**see appendix A** for the location map). It should be noted that the allocated land is in a portion of land yet to be proclaimed as an extension, thus there is currently no Title Deeds issued at that portion. See **appendix C** for proof of land use agreement.

8. DESCRIPTION OF SERVICES AND UTILITIES

This section outlines the services and utilities for the project, during the construction and operation phase:

8.1. Water supply

Tap water from NamWater will be used during the operation phase.

8.2. Accommodation

Temporally camp structures will be established during the construction phase.

8.3. Ablution facility

Portable toilets will be set up to be used during the construction, whereas permanent flushing toilets will be constructed for the operation use.

8.4. Energy

Electricity from Nored and solar energy will be used for the operation phase.

9. PROPOSED PROJECT ACTIVITIES

The project will carry out different activities during construction and operation phase. Some activities will be temporary, suitable for the construction phase only, while some will be fit for operation phase. The table below shows the summary of the project activities.

TABLE 1: SUMMARY OF THE PROJECT ACTIVITIES

Construction phase	Operational phase
• Site clearing • Set up of camps. • Placement of portable toilets • Excavation • Building of bund walls, foundation, floors • Installation of depot associated structures, pipelines, and sewer system.	• Off-loading of fuel • Fuel distribution • Equipment maintenance

10. PROJECT OVERVIEW

The proposed construction and operation of a fuel depot will consist of two (2) above ground storage tanks of diesel, with a capacity of 46000L each, enclosed in bund walls. The depot will therefore be used as a fuel storage, handling, and distribution facility.

10.1. Management of hydrocarbons (fuel) on site

The depot facility will encompass the necessary infrastructure to ensure safe storage and distribution of fuel in bulks. This includes containment systems and constructing bund walls around the storage tanks to prevent fuel spills and leaks from reaching the environment. Spill containment systems will be installed around the area where fuel is handled. Pumps and other fuel transfer equipment will be used to efficiently transfer fuel from the storage tanks to vehicles or other storage containers.

10.2. Management of fire and explosions

Fire protection is crucial in a fuel depot due to the highly flammable nature of fuel. Fire suppression systems such as fire extinguishers, sprinkler systems will be installed on site to mitigate the risk of fire explosions. Adequate safety equipment will be provided throughout the construction and the operation phases. This includes items like fire extinguishers, personal protective equipment (PPE) for workers, safety signs, emergency showers and eyewash stations, and spill containment kits. Regular safety training and drills will also be conducted for all personnel. A comprehensive emergency response plan should be developed and communicated to all employees. This plan should outline procedures for handling fuel spills, fires, accidents, and other emergencies. It should also include contact information for emergency services and details on evacuation procedures if necessary.

10.3. Monitoring of safety hazards on site

A robust monitoring and control systems to track inventory, detect leaks or spills, and ensure safe operating conditions will be developed. This may involve using sensors, gauges, and automated control systems to monitor tank levels, pressure, temperature, and other critical parameters.

The depot will have appropriate security measures in place to prevent unauthorized access and protection against theft or tampering. This may include security fencing, access control systems, surveillance cameras, and adequate lighting.

All the required permits, and licenses will be acquired from the relevant authorities.

11. PROJECT ALTERNATIVES

Alternatives refer to ‘’various methods of fulfilling the overall objectives and needs of an activity" (Environmental Management Act (2007) of Namibia and its regulations (2012). This section will highlight different approaches in which the project can be

undertaken, aiming to pinpoint the alternatives that are feasible and have the least negative impacts on the environment`.

11.1. Sanitation Alternatives

The table below shows descriptions of alternative sanitations:

TABLE 2: DESCRIPTIONS OF ALTERNATIVE SANITATIONS

Alternative descriptions	Advantages	Disadvantage
Flush toilets	• Prevent flies and smells. • Low possibility of pollution.	• Requires readily available water. • Requires the establishment flush system and structures. • Expensive
Pit Latrine	• cheaper	• The probability of pollution is high. • It emits unpleasant smells. • Make use of chemicals
Portable camp toilets	• Easy to establish. • Easily transportable. • No direct impact on the environment and ecology (if disposed of legitimately).	• It makes use of chemicals. • It requires disposal at existing waste facility.

Analysis of alternatives: Since flushing toilets have a low possibility of pollution and water will be readily available on site, they are preferable during operational phase. However, portable toilets are preferable during construction phase because they are easy to establish, transportable and do not have direct impact on the environment.

11.2. Fuel storage alternatives

The fuel at the proposed depot can be stored either in underground tanks or above ground tanks. The table below shows fuel storage alternatives.

TABLE 3: FUEL STORAGE ALTERNATIVES

Alternative descriptions	Advantages	Disadvantage

Underground fuel storage	• Space efficiency-save more space above ground • Aesthetic-less visually intrusive • Less exposure to external factors (e.g. temperature fluctuations	• Leaking tanks can easily contaminate soil and underground water. • Expensive to establish and maintain. • Limited accessibility for inspections & repairs
Above ground fuel storage	• Cost effective installations-no extensive excavations. • Easily accessible for maintenance and inspections • Easy to detect leaks-low environmental pollution	• Can be visually unappealing. • Vulnerable to external factors- deterioration from weather.

Analysis of alternatives: Above ground fuel storage is the preferred option for this project because the tanks are easily accessible for inspections of any leaks to prevent and reduce soil and water pollution. Above ground fuel storage tanks are also easy to repair, and no extensive excavations required for their establishment.

11.3. "No project alternative"

The ''No project '' alternative is the option of not proceeding with the activity. It implies that no development should be undertaken on the land and thus retain the original environment. Should the no project alternative be considered, none of the potential impacts (positive and negative) identified will occur.

Analysis of alternatives: Considering the proposed project, the 'no-project' option is not considered the preferred alternative. This is because, if there is no project, there will be no development, hence proponent should ensure sustainable development and proper environmental management.

12. PUBLIC PARTICIPATION PROCESS

Public involvement is a crucial aspect of the Environmental Scoping Assessment (ESA) procedure. The aim is to ensure that stakeholders (referred to as Interested and Affected Parties (I&APs)) are well-informed about the proposed project and are given the chance to provide feedback and raise relevant concerns for consideration during the assessment. This process aids the Environmental Assessment

Practitioner (EAP) in identifying all potential impacts of the project and determining if further investigations are necessary. According to Section 21 of the Environmental Management Act, No. 7 of 2007 and its regulations (2012), public consultation is mandatory for projects seeking an environmental clearance certificate.

The following public participation procedures were followed:

12.1. Newspaper adverts

Public notice of the project was advertised in two local newspapers for two consecutive weeks. The public and all stakeholders were invited to register as I/APs, to comment and raise their concerns about the project. All necessary communication details for I& APs to register, comment, and BID request were provided. **See Appendix B** for newspaper adverts.

The table below shows the placement dates of newspaper adverts

TABLE 4: PLACEMENT DATES OF NEWSPAPER ADVERTS

N**ewspaper**	**Date of placement**
New Era	18 October 2022
New Era	25 October 2022
Confidente	21 October 2022
Confidente	28 October 2022

12.2. Notice posters

Notice posters were placed at the following areas, in and around Oniipa Town: Punyu Hotel, Onamulunga service station, Okutopola Community Market and Woerman Brock Super Market where it was easily accessible to the local people living near the proposed project site. This was to ensure that neighbouring property owners and stakeholders are aware of the proposed project for further consultations.

The figure below shows a notice poster placement at different areas in and near Oniipa town.

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT

Notice is hereby given to all potentially Interested and/or Affected Parties that an application will be made to the Environmental Commissioner in terms of Environmental Management Act (No. 7 of 2007) and the Environmental Assessment Regulations (2012) for the following intended activity:

Proponent: Transpetro Group Namibia Pty (Ltd).

Project location: The proposed site is situated in Onamulunga, Oniipa town, Oshikoto region, Namibia.

Project description: Transpetro Group Namibia Pty (Ltd) intends to construct and operate a new fuel bulk storage and handling facility (depot) in Onamulunga, Oniipa town. The depot will be used as fuel storage, handling, and distribution facility.

Environmental Consultant: Nam Geo-Enviro Solutions (NGS)

All Interested and Affected Parties (I&APs) are encouraged to register with this study. A Background Information Document can be requested from NGS via email. Issues, comments, and opinions should be submitted in writing to Nam Geo-Enviro Solutions before 7th November 2022.

For any queries, kindly contact:

Nam-Geo Enviro Solutions

Contact person: Ms Ndapanda Hasholo

Tel: 061402246

Email: pop@geoenvirosol.co.za

Nam Geo-Enviro Solutions

Punyu hotel

Woerman brock super market

Okutopola community market

Onamulunga service station

FIGURE 3:NOTICE POSTER PLACEMENT AT DIFFERENT AREAS

12.3. Public meeting

A public meeting was held at Punyu Hotel on the 27th October 2022 (this date was indicated in the newspaper adverts). People from around the area have attended the meeting and provided their views and comments regarding the proposed project. The attendance register, all comments, suggestions, and views were recorded during the meeting**.** See **appendix B** for Meeting Minutes and the I&APs register for people who have attended the public meeting.

The figure below shows pictures of the public meeting held at Punyu Hotel

FIGURE 4: PUBLIC MEETING HELD AT PUNYU HOTEL

12.4. Background information document (BID)

A Background Information Document (BID) was prepared to act as a useful information handout about the proposed project. The BID contains the project description, objectives, motivation, and anticipated project impacts. In addition, the BID provided details on the public consultation process with contact details for communication purposes. This document was made available to all stakeholders upon request, and it was also distributed to the participants at the public meeting. See **appendix B** for the BID.

12.5. Invitation of Interested and affected parties (I/APS)

All I&APs were invited through newspaper adverts, notice posters, public meeting, formal invitation letters and invitation forms for comments. A formal invitation letter was sent to the Oniipa Town Council, to raise their comments and issues regarding the proposed project. Invitation forms for comments were given to residents residing near the proposed site. **See appendix B** for proof of email communications. Interested and affected parties (I/APs) were also given an opportunity to comment on the drafted assessment reports (ESAR and EMP) before submission to the Environmental Commissioner.

13.LEGAL FRAMEWORK: LEGISLATIONS, POLICIES AND GUIDELINES

This section outlines the regulatory framework relevant to the proposed project. All identified crucial pieces of legislation should be adhered to, as indicated in their respective pieces of legislation. Where there is a need to engage private consultants to facilitate compliance, the proponent is encouraged to consult qualified and certified personnel.

The Environmental Management Act No. 7 of 2007 is the primary custodian of the environment, which aims 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; to provide for a process of assessment and control of activities which may have significant effects on the environment and to provide for incidental matters. However, this section does not only focus on the EMA, but also looks at other relevant legislatives.

TABLE 5: LEGAL FRAMEWORK: LEGISLATION, POLICIES, AND GUIDELINES RELEVANT TO THE PROJECT

Aspect	Regulations	Relevant provisions	Relevance to the project
The Constitution	***The constitution of Namibia (1990)*** **First Amendment Act 34 of 1998**	-"The State shall actively promote and maintain the welfare of the people by adopting policies that are aimed at maintaining ecosystems, essential ecological processes and the biological diversity of Namibia. -It further promotes the sustainable utilisation of living natural resources basis for the benefit of all Namibians, both present and future." (Article 95(l)).	Through implementation of the EMP, the proponent should ensure conformity to the constitution in terms of environmental management and sustainability.
Environment	***Environmental Management Act no. 7 of 2007***	-Requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27). -Requires adequate public participation during the environmental assessment process for interested and affected parties to voice their opinions about a project (Section 2(b-c)). -According to Section 5(4) a person may not discard waste as defined in Section 5(1)(b) in any way other than at a disposal site declared by the Minister of Environment and Tourism or in a manner prescribed by the Minister. Details principles which are to guide all EIAs.	This Act and its regulations should inform and guide this EIA process. The project proponent should ensure that all provisions of the EMP are implemented, and regular environmental compliance monitoring and evaluation are conducted. The EMA will guide the process of the ESA. - The public and relevant authorities were consulted during the process of public participation as per the requirement of the act.

	EIA Regulations GN 2007 (no.30 of 2012)	-Details requirements for public consultation within a given environmental assessment process (GN No 30 S21). -Details the requirements for what should be included in a Scoping Report (GN No 30 S8) an EIA report (GN No 30 S15).	These regulations should inform and guide this EIA process.
Oil and Gas	***Petroleum Products & Energy Act (1990)***	-The Act requires that the operation of the Fuel depot and storage facility obtains a wholesale license from the relevant ministry. -The Act requires incident reporting of major spillages occurring on site for pollution control.	The proponent should obtain a wholesale license from the Ministry of Mines and Energy before the operations of the fuel depot.
	South African National Standards SANS 10089-3	-Part 3: The installation of underground storage tanks, pumps/dispensers and pipe work at fuel consumer installation and storage facilities and consumer installations.	The fuel depot should be constructed according to SANS standards.
Biodiversity	***National Biodiversity Strategy and Action Plan (NBSAP2)***	-The action plan was operationalised in a bid to make aware the critical importance of biodiversity conservation in Namibia, putting together the management of matters to do with ecosystems protection, biosafety, and biosystematics protection on both terrestrial and aquatic systems.	Forming part of the EIA and EMP for this project, the proponent should consider all associated impacts, both acute and long term, and should propose methods and ways to sustain the local biodiversity.
Soil	***Soil Conservation Act 76 of 1969***	- This act makes provision for combating and for the prevention of soil erosion, it promotes the conservation, protection and	Fuel depots are mainly associated with fuel spillages which can contaminate soil. This document aims at guiding

		improvement of the soil, vegetation, sources, and resources of the Republic of Namibia.	the proponent during operation and perhaps decommissioning phase to prevent soil erosion and contamination during operation of the depot.
Waste	***Hazardous Substance Ordinance 14 of 1974***	-Provisions for hazardous waste are amended in this act as it provides "for the control of substances which may cause injury or ill-health to or death of human beings, as a result of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the prohibition and control of the importation, sale, use, operation, application, modification, disposal or dumping of such substance; and to provide for matters connected therewith"	The proponent shall separate waste at the site. The proponent shall ensure that all possible "hazardous" categorised substances and waste shall be handled by a certified hazardous waste handler.
	Pollution and Waste Management Bill (draft)	-This bill defines pollution and the different types of pollution. It also points out how the Government intends to regulate the different types of pollution to maintain a clean and safe environment. - The bill also describes how waste should be managed to reduce environmental pollution. Failure to comply with the requirements is considered an offence and punishable.	The project should be conducted in a manner which is advised by the bill, to minimize the generation of waste at the site. - A waste management strategy that follows recycling, reuse and reducing will be commissioned throughout the operations.

	Atmospheric Pollution Prevention Ordinance 11 of 1976	-The Act requires that there is a need to register a controlled area with certificate to operate air polluting activities. The retail/wholesale license covers all elements and requirements of this Act.	The proponent should comply with this act.
Water	***Water Act 54 of 1956***	-The Water Resources Management Act 24 of 2004 is presently without regulations; therefore, the Water Act No 54 of 1956 is still in force: -A permit application in terms of Sections 21(1) and 21(2) of the Water Act is required for the disposal of industrial or domestic wastewater and effluent. -Prohibits the pollution of underground and surface water bodies (S23 (1). -Liability of clean-up costs after closure/ abandonment of an activity (S23 (2)). -Protection from the surface and underground water pollution.	The proponent should comply to the provisions of this act.
Health and Safety	***Labour Act (No 11 of 2007) in conjunction with Regulation 156, 'Regulations Relating to the Health and Safety of Employees at work'.***	-135 (f): "the steps to be taken by the owners of premises used or intended for use as factories or places where machinery is used, or by occupiers of such premises or by users of machinery about the structure of such buildings of otherwise to prevent or extinguish fires, and to ensure the safety in the event of a fire, of persons	The proponent will employ several people and shall ensure securing a safe environment and preserving the health and welfare of employees at work. This will include applying appropriate hazard management plans and enforcing Occupational Health and Safety (OHS) enforcement by contractors

		in such building;" (Ministry of Labour and Social Welfare). -This act emphasizes and regulates basic terms and conditions of employment, it guarantees prospective health, safety and welfare of employees and protects employees from unfair labour practices.	
	Public Health and Environmental Act, 2015	-Under this act, in section 119: "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 compliance with the terms of the Act.
Road	***Road Ordinance 1972 (Ordinance 17 0f 1972)***	-Width of proclaimed roads and road reserve boundaries (S3.1) -Control of traffic during operational activities on the trunk and main roads (S27.1) -Infringements and obstructions on and interference with proclaimed roads. (S37.1) -Distance from proclaimed roads at which fences are erected (S38).	The project will ensure compliance with the terms of the Road Ordinance.
Local authority	***The Regional Councils Act (No. 22 of 1992)***	-This Act sets out the conditions under which Regional Councils must be elected and administer each delineated region. From a land use and project planning point of	The relevant Regional Councils are I&APs and must be consulted during the Environmental Assessment (EA) process.

		view, their duties include, as described in section 28 “to undertake the planning of the development of the region for which it has been established with a view to physical, social and economic characteristics, urbanisation patterns, natural resources, economic development potential, infrastructure, land utilisation pattern and sensitivity of the natural environment. -The main objective of this Act is to initiate, supervise, manage, and evaluate development.	

International conventions and protocols relevant to the project

It is vital to note that there are international conventions and protocols which aim to protect the environment to which Namibia is a signatory. These various international conventions and protocols which relate to the project are listed below:

- Vienna Convention for the protection of the ozone layer, 1985.
- United Nations framework convention on climate change 992.
- Convention of Biological Diversity (1992).
- African Convention on the Conservation of Nature and Natural Resources (1968).

Sustainability principles relevant to the project

Apart from the above-mentioned regulatory framework, the following sustainability principles need to be taken into consideration, particularly to achieve proper waste management and pollution control:

Cradle to grave responsibility

This principle states that those who manufacture potentially harmful products should be liable for their safe production, use, and disposal. Those who initiate potentially polluting activities should be legally responsible for their commissioning, operation, and decommissioning.

Precautionary principle

This principle states that if there is any doubt about the effects of a potentially polluting activity, a cautious approach should be adopted.

The polluter pays principle

A person who generates waste or causes pollution on the environment should pay the costs of pollution including the costs of preventing further damages.

14. CERTIFICATIONS REQUIRED FOR THE PROJECT

Permits and licenses are required as part of compliance and authorization. All permits and licenses should be obtained before commencement of the project.

The table below shows key licenses required for this project:

TABLE 6: CERTIFICATIONS REQUIRED FOR THE PROJECT

Certification	Authority	Status
Wholesale petroleum licence	Ministry of Mines and Energy	**Acquired**
Consent letter of Road construction	Road Authority (Ministry of Work and Transport)	**Acquired**
Lease agreement for land use	Local Authority (Oniipa Town Council)	**Acquired**
Consent letter from fuel supplier	Puma Energy Namibia (Pty) Ltd	**Acquired**
ECC	Ministry of Environment, Forestry and Tourism	**Scoping in progress**

15. DESCRIPTION OF RECEIVING ENVIRONMENT

This section provides an overview of the existing biophysical environment through the analysis of baseline data of the existing natural and socio-economic environment. The summary of biophysical and socio-economic information are summarised below:

15.1. Climate

Climate has a major influence on all aspects of life. In Namibia, climatic features vary from place to place which makes the features and utility of resources different.

Oshikoto region has an average annual rainfall of 400-450 mm per annum, and temperatures vary little across the area where the average is greater than 22ºC in most areas, especially during the summer months. The predominant wind in the area is expected to be in the easterly direction.

The table below summarises climatic conditions of Oshikoto region.

TABLE 7: DESCRIPTION OF CLIMATIC CONDITIONS

Aspect	Measure
Temperature	
Annual temperature	More than 22ºC
Average maximum temperature during the hottest month	34-36 ºC Hottest month-December
Average minimum temperature during the coldest month	6-8 ºC Coldest month-July
Average solar radiation	6.2-6.4 kWh/m^2/day
Humidity	
Humidity in the least humid month	10-20% Least humid month-September
Humidity in the most humid month	80-90% Most humid month March
Precipitation	
Average annual rainfall	400-450mm
Median annual rainfall	350-400mm
Days with 1 mm of rain or more	45-50 days
Variation in annual rainfall	30-40% Coefficient of variation %
Days of fog per year	0-1 days
Days of frost per year	1-5 days
Evaporation	
Average evaporation rate	2100-2240 mm/year
Average water deficit	1500-1700mm/year
Wind	
Wind direction	East

Source*: Mendelsohn et al, 2002*

15.2. Biodiversity (Fauna & Flora)

Plants and animals play an important role in the functioning of ecological processes that maintain the health, productivity, and beauty of the environment.

The project site is located within the Acacia Tree and Shrub Savanna woodland biome. Generally, the average plant production is medium to high and variation in green vegetation biomass is low (5-10%). The area has approximately 300-399 plant species and most of them have a good value of wood, browsing and grazing. The

area has an overall low to medium terrestrial diversity of mammals, reptiles, and birth species and some are endemic to the region.

The project area is characterised by scattered trees, shrubs, and grass cover. Acacia and Palm trees (*Hyphaene petersiana*) were observed dominating the area.

The tables below summarize the biodiversity of Oshikoto region.

TABLE 8: DOMINANT PLANT SPECIES

Overall terrestrial diversity	Low
Plant diversity	300-399 species
Dominant species	Hyphaene petersiana

Source*: Atlas of Namibia by Mendelsohn et al, 2002*

TABLE 9: ANIMAL DIVERSITY

Animal species	**Species diversity**
Birds	111-140 species
Frogs	16-19 species
Mammals	61-75 species
Reptiles	61-70 species
Termites	7-9 no. of genera
Scorpions	6-9 species

Source*: Atlas of Namibia Mendelsohn et al, 2002by*

TABLE 10: LOCAL ENDEMISM

Species	**No. of species**
Overall terrestrial endemism	Low
Reptiles	1-2 species
Plants	1-2 species
Birds	1-3 species
Scorpions	1-2 species
Mammals	1-2 species

Source: *Atlas of Namibia by Mendelsohn, J (2002)*

15.3. Topography and local geology

The general topography of the region is flat. The regional altitudes range from 1400m-1600m above sea level. Soils are relatively low to medium in fertility, of which 70% is sand. The Oshikoto region landscape is commonly described as being part of

the Cuvelai Basin, characterized by the Oshana system (shallow pans), which dominates the environment in the central part of the region. Surface water in these depression shallow pans (Oshanas) is often used by animals for drinking.

15.4. Hydrogeology and surface drainage

The groundwater quality in the region varies, as some boreholes yield good water at depths of 10m and 50m. The water quality ranges from drinkable to highly saline. The presence of the Ephemeral River in the area allows access to water even through hand-dug pits. The interconnected Ephemeral pans and Oshanas are remnants of the proto-Kunene and Cuvelai systems that drain into the inland Etosha pan. However, these water systems do not flow through Oniipa, and test boreholes in the area have indicated that the water is unsuitable for human consumption.

Oniipa Town generally has little to no groundwater, containing very few dissolved solids. There are very few boreholes in the area, yielding less than $1m^3$/hr.

15.5. Socio-economic

The Oshikoto Region is one of the 14 regions of Namibia, located in the northern part of the country, home to a diverse population. It covers an area of approximately 38,685 square kilometres. The 2023 Namibia Population and Housing Census results show that Oshikoto has a population of 257 302 people. The region's economy is predominantly based on agriculture, with subsistence farming being the primary source of livelihood for many residents. Crops such as maize, millet, sorghum, and vegetables are cultivated. Livestock farming, including cattle, goats, and sheep, also contribute to the agricultural sector. In recent years, efforts have been made to diversify the economy by promoting small-scale industries and tourism. The Oshikoto Region has a relatively high unemployment rate, particularly among the youth. Limited job opportunities and the predominance of subsistence farming contribute to this challenge (Nena, 2015).

16. ASSESSMENT OF PROJECT IMPACTS

This section introduces the assessment of potential impacts and the criteria used. Firstly, in line with international practice in EIAs, a broad definition of "Environment" is adopted, which incorporates both biophysical and socio-economic components. The EIA Policy of Namibia seeks to achieve a balance between negative and positive impacts and between biophysical impacts and social and economic gains to society. Consequently, both negative and positive impacts on the environment will be considered. Moreover, the EMP report will recommend measures to mitigate negative impacts and optimize (or enhance) positive impacts.

16.1. Identified potential project impacts

Potential negative and positive impacts that are likely to result from the project, during construction and operation phases were identified and listed below:

Table: Identified potential impacts

Negative impacts	Positive impacts
• Impact on biodiversity • Dust • Noise • Hydrocarbon waste (contamination of surface water, soil and underground water) • Risk of fire and explosions • Emissions of hydrocarbon vapours • Impact on traffic • Occupational health, safety, and security • Generation of waste • Archaeological impact • Risk and spread of HIV and AIDS • Cumulative impacts	• Employment creation • Government revenue • Local development and improvement of general welfare

16.2. Impact analysis and evaluation

In this section, the project impacts on human and biophysical environment were evaluated and analysed. The identified impacts were assessed in terms of probability (likelihood of occurring), extent (spatial scale), magnitude (severity) and duration (temporal scale). To enable a scientific approach to the determination of the environmental significance, a numerical value is linked to each rating scale. This methodology ensures uniformity, and potential impacts can be addressed in a standard manner.

The following ranking matrix was used to assess the environmental significance of each identified impact:

TABLE 11: RANKING MATRIX FOR ENVIRONMENTAL SIGNIFICANCE

SCORE	1	2	3	4	5
TEMPORAL SCALE (DURATION)	Short term – impact quickly reversible, (less than 1 year)	Short term impact (1-5 years)	Reversible over time; medium-term (5-15 years)	Impact is long-term (15-40 years)	Long term; beyond closure; permanent; irreplaceable or irretrievable commitment of resources (over 40 years)
SPATIAL SCALE (EXTEND)	**Site only**: Impact is localized within the site boundary.	**Local:** Impact is beyond the site boundary to adjacent biophysical and social environments.	**Regional**: Impact is felt within region	**National**: Impact widespread far beyond regional scale.	**International:** Impact extend National or over international boundaries.
Likelihood	**Improbable**: low likelihood; seldom. No known risk or vulnerability to natural or induced hazards.	**Low probability:** Likely to occur from time to time. Low risk or vulnerability to natural or induced hazards	**Medium Probability:** Possible, distinct possibility, frequent. Low to medium risk or vulnerability to natural or induced	**Highly probable**: Probable if mitigating measures are not implemented. Medium risk of vulnerability to	**Definite:** Definite (regardless of preventative measures), highly likely, continuous. High risk or vulnerability to natural or induced hazards.

			hazards.	natural or induced hazards.	

SCORE	2	4	6	8	10
MAGNITUDE	Minor deterioration, nuisance, or irritation, minor change species habitat diversity in / or resource, no or very little quality deterioration.	Low deterioration, slight noticeable alteration in habitat and biodiversity. Little loss in species numbers.	Moderate deterioration, discomfort, partial loss of habitat/biodiversity or resource, moderate alteration.	High deterioration, death, illness or injury, loss of habitat / diversity or resource, severe alteration, or disturbance of important processes.	Extremely high deterioration, high quantity of deaths, injury or illness / total loss of habitat, total alteration of ecological processes, extinction of rare species.

Impact significance is determined through a synthesis of the above impact characteristics. The significance of the impact "without mitigation" is the main determinant of the nature and degree of mitigation required.

Significance point = **(magnitude + duration + extend) x likelihood**

The maximum value per potential impact is 100 significance points (SP). Potential impacts are rated as **high**, **moderate**, and l**ow significance**, based on the following significance rating scale:

TABLE 12: SIGNIFICANCE OF IMPACTS

Type of impact	Significant point	Significant rate
Positive +	**60-100**	H
	30-59	M
	1-29	L
None	**0**	N
Negative -	**60-100**	H
	30-59	M
	1-29	L

16.3. Negative impacts

The negative impacts that may arise during the construction and operations of the project are outlined below:

16.3.1. Impact on biodiversity

The construction of a fuel depot requires clearing of land, which can result in the destruction or fragmentation of natural habitats. Thus, there will be loss of plant and animal species that depend on such habitats for survival. However, this impact will be localised.

Due to the presence of buildings and old structures on site, the site currently lacks significant vegetation cover. As a result, only a minimal amount of plant clearing will be necessary.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Impact on Biodiversity	-VE	2	2	6	3	30	M	Unmitigated
		1	1	2	2	8	L	Mitigated

16.3.2. Dust

During the initial stages of construction and excavations, earthmoving activities are carried out to prepare the site. This involves digging, moving soil and rocks, which can generate dust as the loose particles are disturbed and become airborne.
There are existing structures on the site that need to be demolished to make way for the depot, the demolition process can produce dust. Breaking down concrete, bricks, and other building materials can generate significant amounts of dust.

Dust is regarded as a nuisance, as it reduces visibility, impacts the human health, and retards plant growth. Dust particles can penetrate the human body and can cause respiratory tract irritation, illness (such as asthma attack, cough, and bronchitis), and eczema if they are exposed to high amount of dust.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Dust	-VE	2	2	6	4	40	M	Unmitigated
		1	1	2	2	8	L	Mitigated

16.3.3. Contamination of surface soil and water

Fuel spillages and leakages are the highest risks of pollution sources of soils and surface water at fuel depots. This type of contamination usually occurs during dispensing fuel into customers vehicles and when fuel tanker trucks offload fuel into

the storage tanks. Over-filling of tanks, leakage and pipe bursts are the cause of most surface spillages.

Surface spillages if not contained can contaminate the surface soils. Soils contaminated by petroleum contaminants can affect soil health and harm soil microorganisms, reducing their number and activity. Surface spills can also contaminate surface water bodies as they can be washed into rivers and streams by floods and rain, thus can result in further underground water contamination.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
contamination of surface water and soil	**-VE**	4	5	8	4	68	H	**Unmitigated**
		2	1	6	2	18	**L**	**Mitigated**

16.3.4. Contamination of underground water

Fuel storage tanks and reticulation pipelines that carry fuel to the dispensing pumps have a risk of leakage, thereby polluting underground water. Oil spills and leakages may infiltrate underground, causing underground water contamination in the absence of a concrete containment slab around areas where fuel is handled.

Poorly constructed or aging tanks are more prone to corrosion, increasing the risk of fuel seepage into the groundwater.

Contamination of underground water by a sewer system at a fuel depot can have serious environmental and health implications. When a sewer system is not properly designed, constructed, or maintained, it can lead to leaks or breaks in the infrastructure, allowing sewage to seep into the surrounding soil and potentially reach the groundwater.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Contamination of undergrou	**-VE**	3	3	8	4	56	M	**Unmitigated**

nd water		2	1	2	2	10	**L**	**Mitigated**

16.3.5. Hydrocarbon waste

During fuel handling and transfer, spills and leaks can occur due to equipment failure, human error, or accidents. Storage tanks may develop leaks over time, requiring maintenance like welding or cleaning, generating hydrocarbon waste. Tanker trucks need cleaning to remove residual hydrocarbons post-delivery, producing waste. Soil, rainwater, or runoff that comes into contact with stored fuel can become contaminated with hydrocarbons. This water needs to be properly managed to prevent environmental pollution.

Aspect	**Impact type (+/-)**	**Score**				**Significant point**	**Significant level**	
		Extend	**Duration**	**Magnitude**	**Likelihood**			
Hydrocarbon waste	**-VE**	3	3	8	4	56	M	**Unmitigated**
		2	1	2	2	10	**L**	**Mitigated**

16.3.6. Risk of fire and explosions

Lack of proper maintenance and inspection of equipment, storage tanks, pipelines, and electrical systems can lead to equipment failure or leaks. Leaks or spills of flammable liquids can create an explosive atmosphere, increasing the risk of fire and explosions. Improper handling of flammable materials, incorrect procedures, inadequate training, or negligence can result in accidents that trigger fire and explosions at fuel depots.

Aspect	**Impact type (+/-)**	**Score**				**Significant point**	**Significant level**	
		Extend	**Duration**	**Magnitude**	**Likelihood**			
Risk of fire explosion	**-VE**	2	1	8	4	44	M	**Unmitigated**
		1	1	2	2	8	**L**	**Mitigated**

16.3.7. Emission of hydrocarbon vapours

Fuel storage tanks can emit hydrocarbons through various mechanisms. These emissions occur due to the breathing and venting processes of the tanks, where volatile components of the fuel evaporate. Tanks that are not properly sealed or equipped with vapour recovery systems can release hydrocarbons into the air.

Hydrocarbon emissions from fuel depots can have adverse effects on both the environment and human health. Hydrocarbons are a class of compounds primarily composed of carbon and hydrogen. These substances contribute to the greenhouse effect and global warming, depletion of the ozone, increase occurrences of cancer, respiratory disorders and reduce the photosynthetic ability of plants.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Contamination of air	-VE	2	3	6	4	44	M	Unmitigated
		2	1	2	2	10	L	Mitigated

16.3.8. Impact on traffic

Fuel stations require vehicles to enter and exit the premises, which can result in increased turning movements. Drivers manoeuvring in and out of fuel stations may slow down the traffic flow, especially if the entry and exit points are not designed to handle large volumes of vehicles efficiently. Additionally, fuel depots often receive regular deliveries of fuel by tanker trucks. These trucks need to access the depot, which can lead to increased truck traffic in the surrounding area.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Impact on traffic	-VE	2	4	4	3	30	M	Unmitigated
		1	1	2	2	8	L	Mitigated

16.3.9. Occupational health safety and security

Fuel depots store flammable and volatile materials, which can pose health risks to workers if they are exposed to fumes, vapours, or spills. This exposure can lead to respiratory problems, skin irritation, or long-term health effects. Fuel depot operations, such as pumping, loading, and unloading of fuel, can generate high levels of noise and vibration, which can impact workers' hearing and overall well-being if not properly managed.

Generally, projects attract people from different locations and backgrounds. Some anti-social behaviour such as alcohol and drug abuse may be practised. The presence of construction equipment and all associated tools may encourage theft.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Occupational health safety and security	-VE	3	3	6	4	48	M	Unmitigated
		2	1	4	2	14	L	Mitigated

16.3.10. Generation of waste on site

Packaging materials such as cardboard boxes, plastic wraps, and pallets used for transporting fuel and other supplies to the depot can generate waste. Waste is typically in the form of food leftovers, plastics, cigarette butts, waste dumped on site by employees and motorists fuelling up.

Cleaning solvents, degreasers, and other chemicals used for equipment cleaning or maintenance purposes can also contribute to the waste generated at fuel depots.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Generation of waste	-VE	3	1	6	3	30	M	Unmitigated

		1	1	2	2	8	**L**	**Mitigated**

16.3.11. Noise

During the construction phase, heavy machinery such as excavators, bulldozers are typically used. These machines can generate significant noise levels as they operate, especially if they are near residential or sensitive areas.

Fuel depots often experience a high volume of vehicle traffic, including fuel delivery trucks, transport trucks, and other vehicles. The movement and operation of these vehicles can contribute to noise, particularly when acceleration, deceleration, or heavy braking occurs. To ensure continuous operation, fuel depots may rely on generators or other power equipment. These devices can emit noise when running.

The employees, animals and nearby residential areas are the immediate receptor of the noise impacts. According to ISO 18001 standards, workers are not allowed to work under noise levels that are equal to or exceed 85 decibels per 8 hours.

Aspect	**Impact type (+/-)**	**Score**				**Significant point**	**Significant level**	
		Extend	**Duration**	**Magnitude**	**Likelihood**			
Noise	**-VE**	2	2	6	4	40	**M**	**Unmitigated**
		1	1	4	2	12	**L**	**Mitigated**

16.3.12. Archaeological impact

During the construction phase, historical resources protected under the National Heritage (27 of 2004) may be encountered during excavations. Nevertheless, the project site is not located at any known or documented archaeological site.

Aspect	**Impact type (+/-)**	**Score**				**Significant point**	**Significant level**	
		Extend	**Duration**	**Magnitude**	**Likelihood**			
Archaeological	**-VE**	1	1	4	3	18	L	**Unmitigated**

impact		1	1	2	2	8	**L**	**Mitigated**

16.3.13. Risk and spread of HIV and AIDS

Projects of this nature often attract many migrant workers, who may come from regions with different HIV prevalence rates. If the migration is unplanned and lacks proper support systems, it can lead to increased sexual risk behaviours, including multiple sexual partners, which may contribute to the spread of HIV. When workers face challenges in accessing HIV testing, counselling, and treatment, it can further contribute to the epidemic.

Workers may be given little time to visit their partners, as a result they may find new partners from the local area. Condoms may also be limited or not provided at the workplace.

Aspect	**Impact type (+/-)**	**Score**				**Significant point**	**Significant level**	
		Extend	**Duration**	**Magnitude**	**Likelihood**			
Risk and spread HIV and AIDS	**-VE**	4	5	8	3	51	**M**	**Unmitigated**
		1	1	4	2	14	**L**	**Mitigated**

16.3.14. Cumulative impacts

Cumulative impacts occur when the consequences of an action combine with or interact with other effects in a specific location and timeframe. The key focus of cumulative impact analysis should be the combined effects and the resulting environmental degradation.

These impacts arise from gradual changes caused by past, present, or reasonably predictable actions, along with the project itself. Extensive clearing of vegetation can diminish the abundance of plant species in the study area, leading to decreased photosynthesis and consequently reduced food production for fauna. Additionally, it raises the likelihood of invasive species encroaching upon the cleared areas, potentially outcompeting native species for resources such as space and food.

Reduced quality of ground and surface water due to contamination and pollution can lead to the accumulation and intensification of contaminants in the food web, posing health risks as a result.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Cumulative impact	-VE	3	3	6	4	48	M	Unmitigated
		1	1	4	2	12	L	Mitigated

16.4. Positive impacts

16.4.1. Employment creation

Employment will be created during the lifespan of the project. The types of jobs will range from skilled, semi-skilled and unskilled. This will improve the wealth and livelihood of people.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Employment creation	-VE	1	2	4	2	14	L	Unmitigated
		2	4	8	5	70	H	Mitigated

16.4.2. Generation of revenue

According to the law of Namibia, operating companies are required pay tax to the government. The revenue generated benefit the nation at large given that money generated from tax is diverted to the public by the government.

Aspect	Impact type (+/-)	Score				Significant point	Significant level	
		Extend	Duration	Magnitude	Likelihood			
Generation of venue	-VE	1	2	4	2	14	L	Unmitigated

		4	4	8	5	80	**H**	**Mitigated**

6.4.3. Local development and improvement of general welfare

Project investors are believed to bring development to communities where they are operating as a form of enhancing social responsibility. The general welfare of locals should also be improved.

Aspect	**Impact type (+/-)**	**Score**				**Significant point**	**Significant level**	
		Extend	**Duration**	**Magnitude**	**Likelihood**			
Generation of venue	**-VE**	1	2	4	2	14	**L**	**Unmitigated**
		2	4	6	3	36	**M**	**Mitigated**

17. EFFLUENT DISCHARGE ON SITE

Discharge from a fuel depot typically refers to the release or disposal of untreated wastewater, also known as effluent, from the depot into the environment. Effluent from a fuel depot is therefore a significant concern due to its potential environmental and human health impacts. This discharge can occur through various means, including accidental spills or leaks during the handling, transfer, or storage of fuel can result in the release of contaminated wastewater. During the loading and unloading of fuel from tanker trucks, fuel and wastewater can be released. Periodic maintenance activities such as tank cleaning or repairs can generate wastewater contaminated with fuel residues and cleaning chemicals. Rainwater runoff from the depot's paved surfaces, such as fuel storage areas can pick up pollutants and contaminants and carry them into the stormwater drainage system. Cleaning of equipment such as tanker trucks, pumps, and pipelines can produce wastewater containing fuel residues and cleaning agents. Fuel depots often have on-site facilities such as offices, restrooms, and employee amenities. The sewage generated from these facilities, including wastewater from toilets, sinks, showers, and other sanitation facilities, constitutes sewage effluent.

Sewage effluent from fuel depot facilities can contain organic matter, pathogens, and other contaminants typically found in domestic wastewater. A sewerage reticulation system should be installed with the septic tanks connected to the manholes collecting waste through pipeline from the offices, ablution facilities and the whole facility at large.

Effective management practices, including spill prevention measures, containment systems, wastewater treatment, and regular monitoring, are essential to minimize the environmental impact of effluent from fuel depots. Additionally, adherence to regulatory requirements and best practices is crucial to ensure compliance and protect human health and the environment.

18.ENVIRONMENTAL MANAGEMENT PLAN (EMP)

The Environmental Management Plan (EMP) is a tool used to ensure that the adverse impacts of the project are prevented by putting mitigation measures in place. It acts as a separate document, which can be used on site during various phases (construction, operational and decommissioning) of the project development.

An EMP for this project was formulated, to seek a pro-active route of addressing all potential impacts before they result in adverse impacts on the environment. Mitigation measures and monitoring options are highlighted and elaborated in detail on how to minimise negative impacts, enhancing the positive impacts to facilitate the practice of sustainable development.

All contractors and subcontractors participating in the project should be made aware of the contents of the EMP and it should be used as an on-site reference document during all phases of the proposed project.

19. DECOMMISSIONING AND SITE CLOSURE

It is necessary to consider the environmental impacts of decommissioning of any development, even though the decommissioning phase of the project is not known yet. Decommissioning phase is considered as a separate activity which should be dealt with on its own. It would therefore be addressed in another new EIA to be conducted prior to the site closure.

During the decommissioning phase of the project, the following recommendations should be considered:

- The proponent should develop a closure plan to be updated on an annual basis at least 5 years or more prior to envisaged decommissioning.
- The closure plan should outline rehabilitation methods for the site closure.
- The proponent should consider specialists input to provide direction on the closure plan to ensure best practice.
- Various stakeholders should be engaged as early as possible in the closure planning to ensure that their inputs are considered.
- The environmental commissioner should grant a successful rehabilitation for decommissioning to be considered complete.

Other recommendations are listed below:

- Removing of equipment on site.
- Removal of associated infrastructures.
- Rehabilitation of all areas impacted by the associated infrastructures.
- Planting of vegetation on site.
- Notify staff about the planned decommissioning and provide them with references to pursue work somewhere else.

20. CONCLUSION

The proposed establishment and operations of a fuel bulk storage and handling facility (depot) at Oniipa in Oshikoto region underwent a thorough examination to assess its potential positive and negative impacts on the environment. The impacts identified of concern include impact on biodiversity, dust and noise generation, hydrocarbon waste, surface/underground soil and water contamination, risk of fire and explosions, impact on traffic, general waste and risk and spread of HIV/AIDS. After this evaluation, an Environmental Management Plan (EMP) was compiled, outlining measures to mitigate these impacts. The actions specified in the EMP are considered sufficient for reducing the identified impacts to acceptable levels. It is important to highlight that by implementing preventative measures and effective management systems, all environmental risks can be mitigated and controlled. Therefore, it is essential for Transpetro Group Namibia Pty (Ltd) to promptly execute the EMP to minimize any adverse impacts on the environment.

21. WAY FORWARD

Nam Geo -Enviro Solutions recommends that MEFT grants an ECC for the proposed construction and operations of a new fuel bulk storage and handling facility, on condition that Transpetro Group Namibia Pty (Ltd) will implement all measures stipulated in the EMP and all conditions of the ECC should be adhered to.

22. REFERENCES

i. Government of Namibia. (2008). Government Gazette of the Republic of Namibia. Government notice No.1: Regulations for Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)-Windhoek.

ii. Government of Namibia. (2012). Environmental Management Act no. 7 of 2007. Windhoek: Directorate of Environmental Affairs, Ministry of Environment and Tourism.

iii. Guide to the Environmental Management Act No 7 of 2007(2008). Windhoek, Namibia: Ministry of Environment and Tourism.

iv. Mendelson, J., Jarvis, A., Roberts, C., and Robertson, T. (2002). Atlas of Namibia: A portrait of the land and its people. Windhoek, Namibia: Ministry of Environment and Tourism.

V. Nena, P. N. (2015). Factors Affecting Subsistence Farmers' Adoption of Sustainable Land Management Practices in Oshikoto Region, Namibia.

vi. Schlüter, T. (2006). Namibia. *Geological Atlas of Africa: With Notes on Stratigraphy, Tectonics, Economic Geology, Geohazards and Geosites of Each Country*, 172-175.

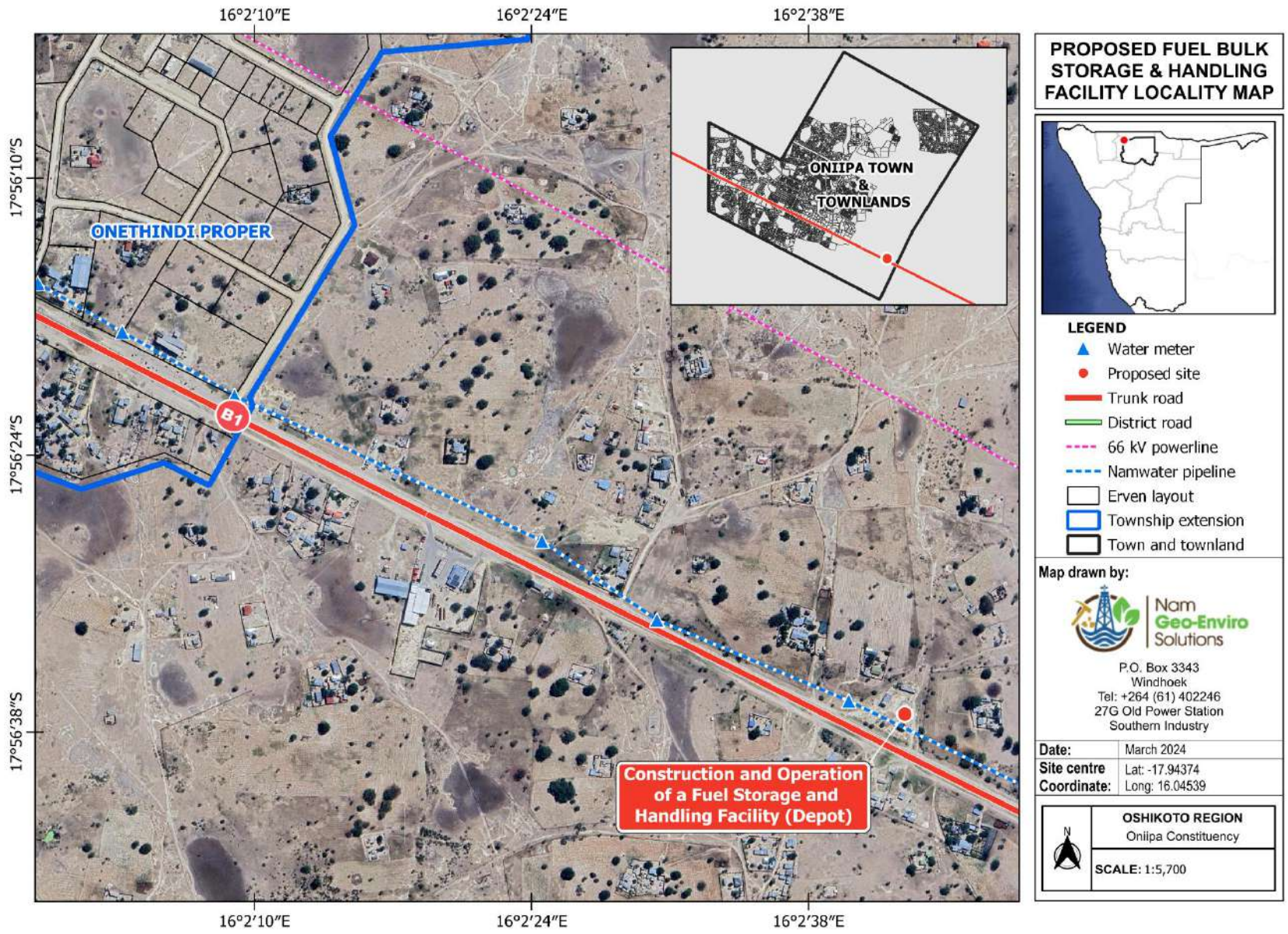
vii. Namibia Statistics Agency. (2011). Namibia 2011: Population & Housing Census Main Report. Namibia Statistics Agency.

viii. Petroleum Products and Energy Act of Namibia (1990).

ix. South African National Standard 10089-1. (2008). The petroleum industry part 1: Storage and distribution of petroleum products in above-ground bulk installations. South Africa: Standards South Africa publishers.

23. APPENDICES

Appendix A: Project location map



PROPOSED FUEL BULK STORAGE & HANDLING FACILITY LOCALITY MAP

LEGEND

- Water meter
- Proposed site
- Trunk road
- District road
- 66 kV powerline
- Namwater pipeline
- Erven layout
- Township extension
- Town and townland

Map drawn by:

Nam Geo-Enviro Solutions
P.O. Box 3343
Windhoek
Tel: +264 (61) 402246
27G Old Power Station
Southern Industry

Date:	March 2024
Site centre Coordinate:	Lat: -17.94374 Long: 16.04539

OSHIKOTO REGION
Oniipa Constituency

SCALE: 1:5,700

Appendix B: Public Participation Process (Newspaper adverts, Notice posters, BID, Public meeting minutes, meeting attendance register, invitation letters, invitation forms, I&APs register)

New planning laws must encourage regional development

Nestor Shefika

THE framework within which planning and development occur is formed by planning laws and regulations.

Old planning laws like the Townships and Division of Land Ordinance 11 of 1963 and the Town Planning Ordinance 18 of 1954 have been gradually phased away in Namibia by the government. These laws represented rigid legal structures that were out-of-date and incapable of coordinating the [illegible]

private business self-regulation, which aims to contribute to societal goals of a philanthropic, activist or charitable nature by engaging in/or supporting volunteering or ethically oriented practices.

In the lamest term, corporate social responsibility is a management concept, whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders.

We should perhaps put CRS initiatives into consideration to at least have a positive impact on the world through direct benefits to society, nature and the community in which a business operates. CSR demonstrates that you are a business that takes an interest in wider social issues, rather than just those who impact your profit margins, which will attract customers who share the same values.

Therefore, it makes good business sense to operate sustainably.

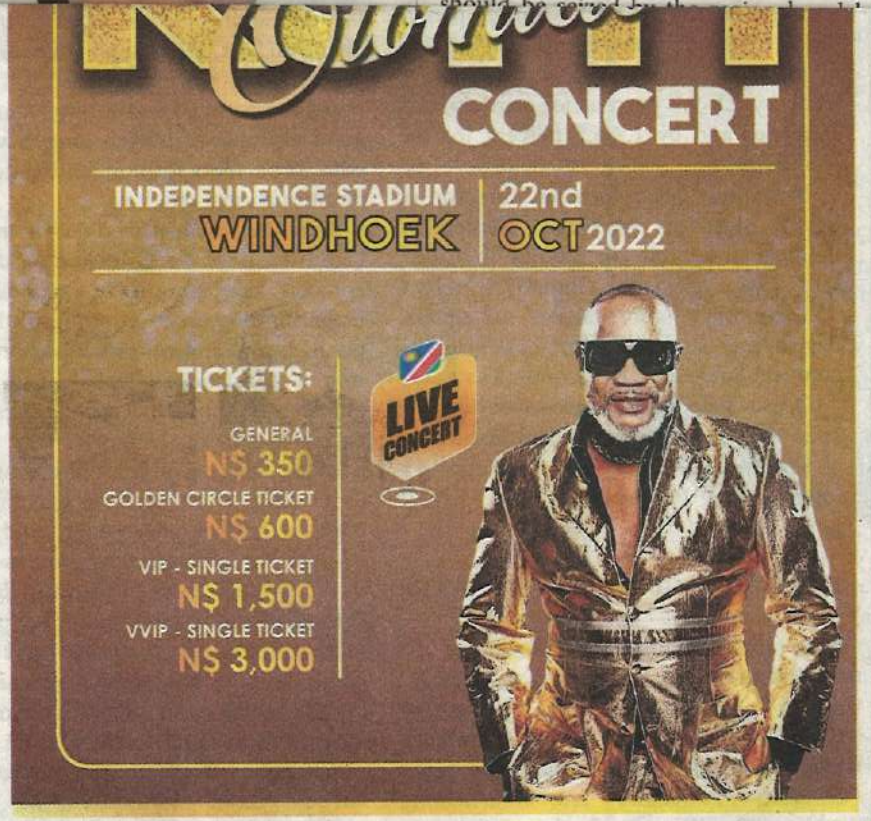
Moreover, it is disconsolate to see many companies flourishing; yet, they do nothing for the society they operate from.

It is the little things that matter in our daily lives. There are many school kids who go to school barefoot, some on an empty stomach and some schools have dilapidating buildings that are not conducive at all to learning.

Street lights also turn out to be one of the big challenges that I have observed, and this since 1990. These laws include, among others, the recently passed Urban and Regional Planning Act (Act No. 05 of 2018), the Decentralisation Enabling Act (Act No. 33 of 2000) and the Regional Authorities Act (Act No. 22 of 1992). In light of this, it is perplexing to consider the fundamental socioeconomic advancements that are occurring in all regions, which also serves as an example of the congenial nature of these planning laws.

been most common among large corporations, small businesses also should participate in CSR through smaller-scale programmes, such as donating to local charities and sponsoring

the centre of a bottom-up planning system that will guide a fair distribution of the required resources to all people within their designated geographical jurisdictions. The importance of these plans is also linked to their focus on regional convergence, which discourages the uneven spatial economic development of regions with similar socioeconomic characteristics. The passage of this new Act



Nam Geo-Enviro Solutions

ENVIRONMENTAL IMPACT ASSESSMENT

NOTICE TO ALL INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA, ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA,

Notice is hereby served to inform all potentially Interested and/or Affected Parties that an application will be made to the Environmental Commissioner in accordance with the provision of the Environmental Management Act (No. 7 of 2007) and the Environmental Assessment Regulations (2012) for the following intended activity:

Proponent: Transpetro Group Namibia Pty (Ltd)

Project Location: The proposed site is situated in Onamulunga, Oniipa Town, Oshikoto Region, Namibia.

Project Description: Transpetro Group Namibia Pty (Ltd) intends to construct a new fuel storage and handling facility in Onamulunga, Oniipa Town. The new depot will be used as fuel storage, handling, and distribution facility.
As part of the listed activities that cannot be carried out without an environmental clearance certificate (ECC) an EIA will be done to assess the impacts associated with the construction and operation of the project.

Environmental Consultant: Nam Geo-Enviro Solutions (NGS) has been appointed by Transpetro Group Namibia Pty (Ltd) as an independent environmental consultancy to conduct an environmental impact assessment for the project.

All Interested and Affected Parties (I&APs) are invited to register with this study. A Background Information Document (BID) can be requested from NGS via email.

A public meeting has been scheduled to take place as follow:

Venue: Punyu International Hotel Conference Hall (Ondangwa)
Date: 27 October 2022
Time: 16:30

Issues, comments, and opinions should be submitted in writing to Nam Geo-Enviro Solutions before 7th November 2022

Contact person: Ms Ndapanda Hasholo
Tel/Fax: +264 61 402 246

NOTICE OF INTENTION TO APPLY FOR REZONING

Please take note that Asinovative Planning Consultant, in terms of the Urban and Regional Act, Act No 5 of 2018, intends to apply to the Omuthiya Town Council and the Urban and Regional Planning Board on behalf of the registered owner of Erf 2135 Omuthiya, Extension 8 to rezone Erf 2135 Omuthiya, Extension 8 from 'Residential' to 'General Residential' with a density of 1 per 100 m2. Erf 2135 Omuthiya, Extension 8 is zoned 'Residential' in terms of the Omuthiya Zoning (Town Planning) Scheme and measures 1,025 m2 in size. The owner intends to construct flats on the subject erf once the erf is rezoned.

Please further take note that the plan of the erf or land lies for inspection at the Offices of the Omuthiya Town Council. Further, take note that any person having objections to the rezoning concerned or who wants to comment, may in writing lodge such objections and comments, together with the grounds, with the Acting Chief Executive Officer, Omuthiya Town Council, P.O. Box 19262, Omuthiya and with the applicant within 14 business days of the last publication of this notice, i.e. no later than **11th November 2022**.

Asinovative

Asinovative Planning Consultant
P.O. Box 81555, Olympia, Windhoek
asinovative@gmail.com

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7576)

Notice is hereby placed to inform all potentially Interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of proposed exploration activities for industrials minerals, dimension stone, precious metals, base and rare metals mineral exploration activities:

Project Location: EPL 7576 is located roughly 30 km NW from Usakos town, Erongo Regions and it covers state land.
Proponent: Cadan Minerals And Resources Close Corporation

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 5th of November 2022 in Usakos. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

ENVIRONMENTAL IMPACT ASSESSMENT

NOTICE FOR THE PROPOSED ESTABLISHMENT OF A SMELTER PLANT AT WALVIS BAY IN ERONGO REGION.

OUTRUN CONSULTANTS CC HEREBY GIVES NOTICE OF THE ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED ESTABLISHMENT OF SMELTERS AND THE MANUFACTURING OF VARIOUS METAL AND PLASTIC PRODUCTS AT WALVIS BAY. The Smelters and manufacturing plants will be located at Pioneer Industrial Estate at the corner of C14 and C34 roads. An EIA is being commissioned as required under the Environmental Management Act, 7 of 2007 and Regulations of 2012. Interested and Affected Parties are invited to register and attend meetings as detailed below.

PROPONENT(S): KONTINENTAL INDUSTRIAL PRODUCTS (PTY) LTD

Rössing celebrates long-

Photo: Edgar Brandt

total repayment of the two loans to N$7 billion.

The repayment of the loans is financed by a fuel levy of 60 cents per litre on all petroleum products in the country.

Also, the NOSF is still only operating at 60% of its capacity. This was shared by the acting minister of public enterprises Ipumbu Shiimi in the National Assembly last week.

Shiimi added from January 2020 to date, Namcor has generated N$3.3 billion from the national Oil Storage Facility.

The multi-billion-dollar facility was constructed to increase Namibia's security of supply of fuel and petroleum products from a concerning seven to 10 days to a more

you. I urge you to continue to serve as ambassadors to our external stakeholders and as an example to all other employees at the mine".

Also speaking at the ceremony, 45-years serving employee Solly Thomas shared his journey that started in 1977.

Viktor Gonteb also took to

responding to questions.

The facility is not leased to a third party but solely managed and operated by Namcor, he said.

"Namcor, however, host two international marketing companies as agreed upon and approved by government. The two companies are Gunvor and Validus Energy," noted Shiimi.

This is considered one of government's biggest investment projects.

The construction of the facility commenced in January 2015 and was officially handed over to Namcor on 1 March 2021 by the mines and energy ministry.

The construction was to replace the old oil tanker berth in Walvis Bay, which is over 50 years old and has outlived its design life.

- *mndjavera@nepc.com.na*

Nam Geo-Enviro Solutions

ENVIRONMENTAL IMPACT ASSESSMENT

NOTICE TO ALL INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA, ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA,

Notice is hereby served to inform all potentially Interested and/or Affected Parties that an application will be made to the Environmental Commissioner in accordance with the provision of the Environmental Management Act (No. 7 of 2007) and the Environmental Assessment Regulations (2012) for the following intended activity:

Proponent: Transpetro Group Namibia Pty (Ltd)

Project Location: The proposed site is situated in Onamulunga, Oniipa Town, Oshikoto Region, Namibia.

Project Description: Transpetro Group Namibia Pty (Ltd) intends to construct a new fuel storage and handling facility in Onamulunga, Oniipa Town. The new depot will be used as fuel storage, handling, and distribution facility.
As part of the listed activities that cannot be carried out without an environmental clearance certificate (ECC) an EIA will be done to assess the impacts associated with the construction and operation of the project.

Environmental Consultant: Nam Geo-Enviro Solutions (NGS) has been appointed by Transpetro Group Namibia Pty (Ltd) as an independent environmental consultancy to conduct an environmental impact assessment for the project.

All Interested and Affected Parties (I&APs) are invited to register with this study. A Background Information Document (BID) can be requested from NGS via email.

A public meeting has been scheduled to take place as follow:

Venue: Punyu International Hotel Conference Hall (Ondangwa)
Date: 27 October 2022
Time: 16:30

Issues, comments, and opinions should be submitted in writing to Nam Geo-Enviro Solutions before 7th November 2022

Contact person: Ms Ndananda Hashole

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7576)

Notice is hereby placed to inform all potentially Interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of proposed exploration activities for industrials minerals, dimension stone, precious metals, base and rare metals mineral exploration activities:

Project Location: EPL 7576 is located roughly 30 km NW from Usakos town, Erongo Regions and it covers state land.
Proponent: Cadan Minerals And Resources Close Corporation

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 5th of November 2022 in Usakos. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

NOTICE OF INTENTION TO APPLY FOR REZONING

Please take note that Asinovative Planning Consultant, in terms of the Urban and Regional Act, Act No 5 of 2018, intends to apply to the Omuthiya Town Council and the Urban and Regional Planning Board on behalf of the registered owner of Erf 2135 Omuthiya, Extension 8 to rezone Erf 2135 Omuthiya, Extension 8 from 'Residential' to 'General Residential' with a density of 1 per 100 m2. Erf 2135 Omuthiya, Extension 8 is zoned 'Residential' in terms of the Omuthiya Zoning (Town Planning) Scheme and measures 1,025 m2 in size. The owner intends to construct flats on the subject erf once the erf is rezoned.

Please further take note that the plan of the erf or land lies for inspection at the Offices of the Omuthiya Town Council. Further, take note that any person having objections to the rezoning concerned or who wants to comment, may in writing lodge such objections and comments, together with the grounds, with the Acting Chief Executive Officer, Omuthiya Town Council, P.O. Box 19262, Omuthiya and with the applicant within 14 business days of the last publication of this notice, i.e. no later than **11th November 2022**.

Asinovative

Asinovative Planning Consultant
P.O. Box 81555, Olympia, Windhoek
asinovative@gmail.com

NOTICE FOR ENVIRONMENTAL IMPACT ASSESSMENT

Environclim Consulting Services cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and Environmental Impact Assessment Regulations (GN 30 of 6 February 2012) for the following:

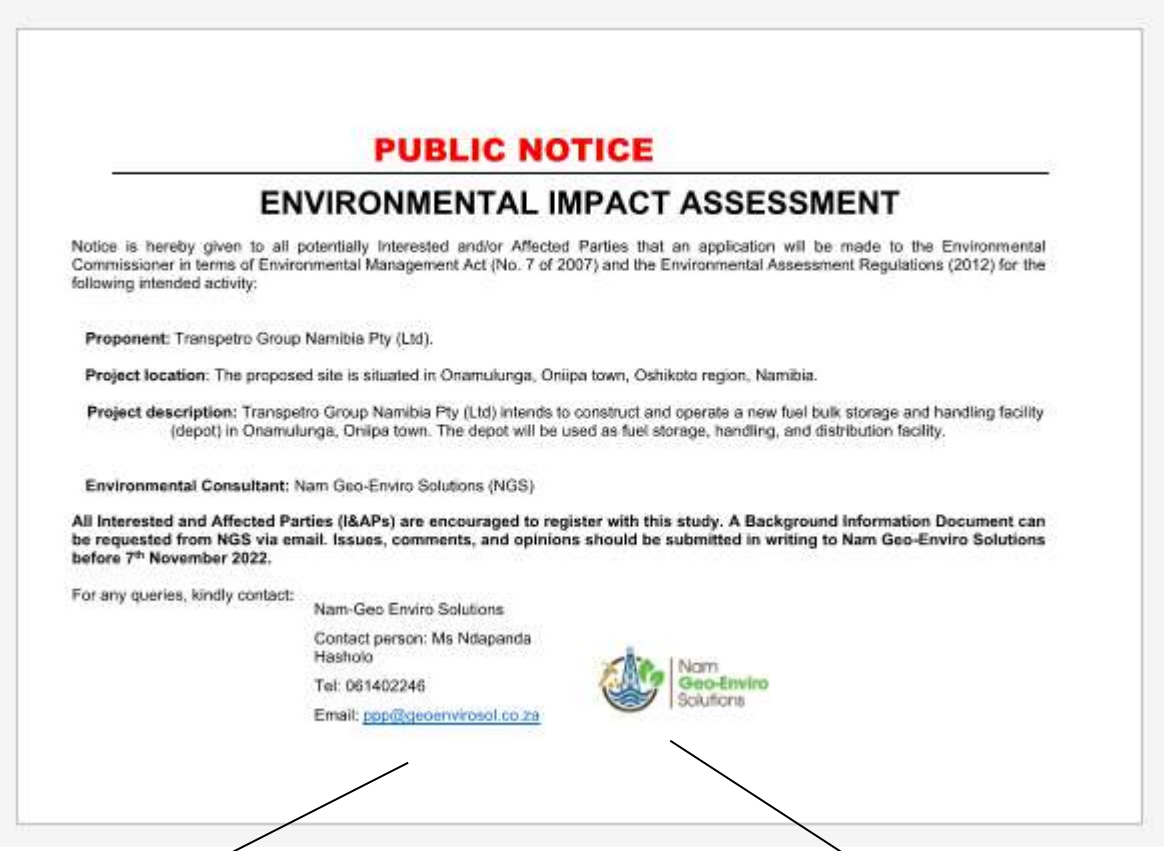
PROJECT NAMES:

Environmental Impact Assessment (EIA) for the establishment of mining activities on two (2) Mining Claims no; 73787 & 73788, in Usakos District, Erongo Region.

PROJECT LOCATION: The mining claims are situated approximately 16 Km north of Usakos within the Khorixas, Erongo Region.

PROJECT DESCRIPTION:
The project involves conducting an Environmental Impact Assessments (EIA) for the establishment of mining activities of semi-precious stones and industrial mineral at the above mining claims.

The figure below shows a notice poster placement at different areas in and near Oniipa town areas:



PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT

Notice is hereby given to all potentially Interested and/or Affected Parties that an application will be made to the Environmental Commissioner in terms of Environmental Management Act (No. 7 of 2007) and the Environmental Assessment Regulations (2012) for the following intended activity:

Proponent: Transpetro Group Namibia Pty (Ltd).

Project location: The proposed site is situated in Onamulunga, Oniipa town, Oshikoto region, Namibia.

Project description: Transpetro Group Namibia Pty (Ltd) intends to construct and operate a new fuel bulk storage and handling facility (depot) in Onamulunga, Oniipa town. The depot will be used as fuel storage, handling, and distribution facility.

Environmental Consultant: Nam Geo-Enviro Solutions (NGS)

All Interested and Affected Parties (I&APs) are encouraged to register with this study. A Background Information Document can be requested from NGS via email. Issues, comments, and opinions should be submitted in writing to Nam Geo-Enviro Solutions before 7th November 2022.

For any queries, kindly contact:

Nam-Geo Enviro Solutions

Contact person: Ms Ndapanda Hasholo

Tel: 061402246

Email: ppp@geoenvirosol.co.za

Nam Geo-Enviro Solutions

Punyu hotel

Woerman brock super market

	
Okutopola community market	*Onamulunga service station*

MEETING MINUTES

Environmental Impact Assessment (EIA) for the construction and operations for a new fuel bulk storage and handling facility (depot) at Onamulunga in Oniipa, Oshikoto region

DATE: 27 October 2022

Table of Contents

List of tables

1.Details of the meeting

Date: 27 October 2022

Time: 16:30

Venue: Punyu International hotel conference hall (Ondangwa)

Environmental consultant: Nam Geo-Enviro Solutions

Main speakers: Mr Zeeuw Mukuve (Nam Geo-Enviro Solutions)

Miss Ndapanda Hasholo (Nam Geo-Enviro Solutions)

Translator: Miss Ndapanda Hasholo

Attendance: Kindly refer to the attendance register attached for Interested and Affected Parties.

2. Purpose of the meeting

Meetings provide a platform for engaging with stakeholders including community members, government agencies, NGOs, and other interested parties. It allows them to voice their concerns, raise their views and contribute to the decision-making process. Meetings are also essential for promoting transparency, engaging stakeholders, and ensuring that the project is carried out in a socially and environmentally responsible manner.

3. Agenda

Mr Zeeuw gave a presentation on the project and Miss Ndapanda translated from English to Oshiwambo.

The presentation highlighted the following:

- Welcoming remarks and introduction
- The purpose of the public meeting
- Project background
- Legal and regulatory framework
- Environmental Impact Assessment phases and technical details
- Identified positive and negative impacts of the project.
- Management and mitigation measures of the impacts
- Questions, concerns, and comments of I&APs
- Conclusion

4. Welcoming remarks and Introduction

Mr Zeeuw welcomed everyone to the meeting warmly, and introduced all parties involved in the proposed project. He then gave a brief description of the purpose of the meeting. The phases of the project were clearly described, and the attendees were briefed on the anticipated positive and negative impacts of projects. In addition, the attendees were also provided with a background information document (BID) of the project, to familiarize themselves with the project details,

The attendees were given an opportunity at the end of the presentation, to comment and raise their concerns regarding the proposed project.

5.Issues, comments and questions discussed

Unfortunately, only one attendee commented on the proposed project. The attendee raised their concern for local employment and is also positive about the project as it will be a great development for the community.

The table below outlines the name of the attendees and comments/questions raised by them and responses

Table 1: Comments/questions raised and responses.

Name	Comments/questions	Response
Ms Nalyaaluke Keendjele	• The project is a good idea and development for the community • I am also hoping for local employment.	**By: Mr Zeeuw-** An environmental management plan (EMP) will be formulated, to provide mitigation measures of the anticipated negative impacts and enhancements of the positive impacts. The proponent is advised to employ the local people, ranging from skilled, semi-skilled and unskilled jobs**.**

6. Conclusion

The meeting was held, and the I&APs have attended. The attendees were briefed on the anticipated impacts of the project, and they were given an opportunity to comment and ask questions. A BID was also given to the attendees, providing contact details for further comments and question +

36ns via email and telephone.

Interested and Affected Parties (I&APs) were notified that the minutes of the meeting will be available at the Nam Geo-Enviro Solutions office upon request.

7. Closing remarks

Mr Zeeuw thanked all the participants for attending and their contributions and encouraged them to further raise their concerns during the EIA process.

ATTENDANCE REGISTER FOR INTERESTED AND AFFECTED PARTIES

ENVIRONMRNETAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN. OSHIKOTO REGION

Name of participant	Organisation (if applicable)	Location	Contact details		
			Telephone	Postal Address	Signature
1. Nolipanda Hashidi	Nam Geo-Enviro Sol.	Ondangwa	0817846620		
2. Nalyaaluke Keendjele	Trgnspetro	Ondangwa	0817985023	P.O Box 2829 -ND	
3. Jogbet Namene	Oniipa Community	Onamulunga	0818741296		
4. Joseph Ndemba	Oniipa	Onamulunga	0817585709		
5 Petrus kandjavlili	Oniipa	Ondangwa	0817778067		
6 Selma Eha	Puma Onamulunga	Ondangwa	0818719993		
7 Kaundjua Astilia	Oniipa	Ondangwa	0814388790		
8 Maria Hango	Oniipa	Ondangwa	0813660748		
9 Veronika Kalumbu	Oniipa	Ondangwa	0816397535		
10. Katrina simon	Oniipa	Ondangwa	0812131706		
11. T.S. NIINGUNGO	Oniipa	Ondangwa	0816909946		
12. Ennisia Niinaungo	oniipa	Ondangwa	0816748510	—	
13. Gabriel Immanuel	Oniipa	Ondangwa	0816999141	—	
14. Kautewa Jonias	Onamulunga	Ondangwa	081 6759617		
Zeeun Mukuve	Nam Geo Enviro Wtte		0812716012	P.O.Box 3345 Wtte	

BACKGROUND INFORMATION DOCUMENT (BID)

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA

PURPOSE

The purpose of this BID is to brief interested and affected parties (I&APs) about the EIA that is being conducted for the construction and operations of a fuel bulk storage and handling facility (depot) at Onamulunga in Oniipa town, Oshikoto region.

In addition to supporting information about the proposed project and the EIA, this BID will grant I&APs with an opportunity to:

- Register as stakeholders in the public participation process.
- Comment and express their views about this study.

The EIA will identify and evaluate potential impacts, recommend measures to mitigate project impacts. The EIA decision making authority is the Ministry of Environment, Forestry and Tourism (MEFT).

- All issues, comments and suggestions should be submitted in writing to Nam Geo-Enviro Solutions.
- **Contact details**
- Nam Geo-Enviro Solutions
- Contact person: Ndapanda Hasholo
- Tel/Fax: +264 61 402246
- Email: ppp@geoenvirosol.co.za

BACKGROUND

Transpetro Group Namibia Pty (Ltd) has proposed to construct and operate a new fuel bulk storage and handling facility at Onamulunga in Oniipa town, Oshikoto region.

The proposed depot will consist of two (2) above ground storage tanks of diesel with a capacity of 46000L each, enclosed in bund walls. The new depot will be used as fuel storage, handling, and distribution facility.

As part of the listed activities that cannot be carried out without an Environmental Clearance Certificate (ECC), an EIA will be done to assess impacts associated with the construction and operation of the project.

Nam Geo-Enviro Solutions has been appointed by Transpetro Group Namibia Pty (Ltd) as an independent environmental practitioner to conduct an EIA for the intended project to abide to the Environmental Management Act no. 7 of 2007 and its Regulations of 2012.

CRITICAL PROJECT IMPACTS

Impacts	Level of significance
1. surface and groundwater contamination	High
2. fire and explosion hazards	High
3. Health and safety	High
4. Noxious odors	Medium
5. Impact on biodiversity	Medium

OBJECTIVES

- To determine the potential environmental and social impacts associated with the project.
- To ensure that the impacts identified are adequately addressed.
- To facilitate an informed, transparent, and accountable decision-making process by consulting with key I&APs so that their concerns are considered in the formulation and implementation of the EMP.
- To comply with Namibia's relevant laws, policies, and regulations.
- To promote sustainable development.
- To ensure the protection of biodiversity.

PROJECT MOTIVATIONS

- The goal of this project is to ensure sufficient supply of diesel and easily accessible in the area.

This project has the potential to contribute to Namibia's economy both directly and indirectly. Direct economic benefits will be wages, taxes, and profits. Some Indirect economic benefits will be procurement of goods

PUBLIC PARTICIPATION PROCESS: REGISTRATION AND COMMENTS SHEET

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA

NB: Please complete before the 29th February 2024 and return to the EIA Public Participation Office (see BID for contact details)

Title: Pension Organization: Telephone No: 0812487227 Date. 24-02-2024	Name: LORNA PEYANAH Surname: MUHOTA Email: Pmutota@hotmail.com Postal address: P.O. Box 403 [illegible]	**NB**: If you are an affected landowner, please indicate.

(Please tick the appropriate box in the table below:)

Please formally register me as interested and affected party (I&AP) so that I may receive further information and notifications during the EIA process	Yes	✓
	No	
I would like my notification by:	Email	X
	Telephone	0812487227
	Email letters	
	Paper copies	
I would like to receive documents for comments by	Email:	Pmutota@hotmail.com
	Paper copies:	

1 What issues do you think should be investigated in the EIA?

Answer [illegible] conservation

2. Are you an affected land owner?

Answer

3. What recommendations do you have for this EIA process/public participation process

Answer

4. Any other comments

Answer.

Signature.....

PUBLIC PARTICIPATION PROCESS: REGISTRATION AND COMMENTS SHEET

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA

NB: Please complete before the 29th February 2024 and return to the EIA Public Participation Office (see BID for contact details)

Title: MR	Name: Vaino	NB If you are an affected landowner, please indicate.
Organization:	Surname: Mudhenga	
Telephone No: 081 2900029	Email:	
Date 28/02/24	Postal address: PO Box 15069 Ohangwena	

(Please tick the appropriate box in the table below:)

Please formally register me as interested and affected party (I&AP) so that I may receive further information and notifications during the EIA process	Yes	✓
	No	
I would like my notification by:	Email	mudhengvaino@gmail.com
	Telephone	081 2900029
	Email letters	
	Paper copies	
I would like to receive documents for comments by	Email	✓
	Paper copies	

1 What issues do you think should be investigated in the EIA?

Answer: Safety & storage

3 Are you an affected land owner?

Answer I am not

3 What recommendations do you have for this EIA process/public participation process

Answer Let the process continue with the establishment

4 Any other comments

Answer N/A

Signature.....

PUBLIC PARTICIPATION PROCESS: REGISTRATION AND COMMENTS SHEET

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA

NB: Please complete before the 29th February 2024 and return to the EIA Public Participation Office (see BID for contact details)

Title: MR	Name: Thomas	NB: If you are an affected landowner, please indicate.
Organization:	Surname: AMUTHENY	
Telephone No: 081589 6000	Email: N/A	
Date: 28. 02. 2024	Postal address: 849	

(Please tick the appropriate box in the table below:)

Please formally register me as interested and affected party (I&AP) so that I may receive further information and notifications during the EIA process	Yes	
	No	NO
I would like my notification by:	Email	N/A
	Telephone	
	Email letters	
	Paper copies	
I would like to receive documents for comments by:	Email:	N/A
	Paper copies:	

1.What issues do you think should be investigated in the EIA?

Answer: Safety

2. Are you an affected land owner?

Answer: NO

3. What recommendations do you have for this EIA process/public participation process

Answer

4. Any other comments

Answer:

Signature .....

PUBLIC PARTICIPATION PROCESS: REGISTRATION AND COMMENTS SHEET

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA

NB: Please complete before the 29th February 2024 and return to the EIA Public Participation Office (see BID for contact details)

Title: MRS	Name: Sylvia	**NB**: If you are an affected landowner, please indicate.
Organization:	Surname: Shikesho	
Telephone No. 081 2775636	Email: N/A	
Date: 28/2/2024	Postal address: N/A	

(Please tick the appropriate box in the table below:)

Please formally register me as interested and affected party (I&AP) so that I may receive further information and notifications during the EIA process	Yes	✓
	No	
I would like my notification by:	Email	N/A
	Telephone	081 2775636
	Email letters	
	Paper copies	
I would like to receive documents for comments by	Email	N/A
	Paper copies:	

1.What issues do you think should be investigated in the EIA?

Answer Safety

2. Are you an affected land owner?

Answer: NO

3. What recommendations do you have for this EIA process/public participation process

Answer:

4. Any other comments

Answer:

Signature.....

Nam
Solutions

PUBLIC PARTICIPATION PROCESS: REGISTRATION AND COMMENTS SHEET

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA

NB: Please complete before the 29th February 2024 and return to the EIA Public Participation Office (see BID for contact details)

Title: Ms	Name: LINDA NENY	**NB**: If you are an affected landowner, please indicate.
Organization:	Surname: AMUTENYA	
Telephone No:	Email: linda.amutenya@gmail.com	
Date: 21 February 2024	Postal address:	

(Please tick the appropriate box in the table below:)

Please formally register me as interested and affected party (I&AP) so that I may receive further information and notifications during the EIA process	Yes	YES
	No	
I would like my notification by:	Email	linda.amutenya@gmail.com
	Telephone	0811276881
	Email letters	
	Paper copies	
I would like to receive documents for comments by:	Email:	✓
	Paper copies:	✓

1.What issues do you think should be investigated in the EIA?

Answer: COMPLY WITH SAFETY

2. Are you an affected land owner?

Answer: YES

3. What recommendations do you have for this EIA process/public participation process

Answer: SAFETY

4. Any other comments

Answer: TO COMPLY WITH SAFETY RULES, AND AVOID SPILLING OF FUEL ON THE GROUND.

Signature... [signature]

PUBLIC PARTICIPATION PROCESS: REGISTRATION AND COMMENTS SHEET

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA

NB: Please complete before the 29th February 2024 and return to the EIA Public Participation Office (see BID for contact details)

Title: Mr.	Name: Julius	**NB**: If you are an affected landowner, please indicate.
Organization: JnS Farming	Surname: Moongo	
Telephone No: 0813406800	Email: jnsfarming1@gmail.com	
Date: 28/02/2024	Postal address: PO Box 2346, Ond	

(Please tick the appropriate box in the table below:)

Please formally register me as interested and affected party (I&AP) so that I may receive further information and notifications during the EIA process	Yes ✓	Yes
	No	
I would like my notification by:	Email ✓	jnsfarming1@gmail.com
	Telephone	
	Email letters	
	Paper copies	
I would like to receive documents for comments by:	Email:	jnsfarming1@gmail.com
	Paper copies:	

1.What issues do you think should be investigated in the EIA?

Answer: Investigate possible hazards around impact to humans and animals within the vicinity incases of spillage of the material and hydrocarbon to be stored at the establishment.

2. Are you an affected land owner?

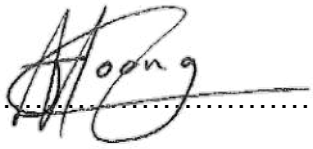
Answer: Yes

3. What recommendations do you have for this EIA process/public participation process

Answer: Please be very open on the potential impacts this establisment will have on the community, be it positive or negative.

4. Any other comments

Answer: No additional comments

Signature…  ……

Ndapewa N Ndakunda
Manager: Technical, Planning & Community Services
Tel: +264 65 245700/11
Email: nndakunda@oniipatc.org.na

From: ndapanda@geoenvirosol.co.za [mailto:ndapanda@geoenvirosol.co.za]
Sent: Wednesday, 02 November 2022 10:53
To: miitula@oniipatc.org.na
Cc: nndakunda@oniipatc.org.na; hasholondapanda@gmail.com
Subject: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY AT ONAMULUNGA-ONIIPA TOWN

Good day Ms Martha,

Herewith attached invitation letter for comments and issues regarding the proposed construction and operation of the proposed depot at Onamulunga in Oniipa town, Oshikoto region.

We have also attached a Background Information Document (BID) of the proposed project.

Regards,
Ndapanda Hasholo
Environmental Scientist
P O. Box 3343, Windhoek
Tel: +264 (61) 402246
Fax: +264 (61) 402246
Cell: +264812716012
E-mail : ndapanda@geoenvirosol.co.za

Unit 15 Windmill Industrial,Prosperita.
Windhoek

Nam Geo-Enviro Solutions

CONSULTING EARTH GEOTECHNICAL, ENVIRONMENTAL & WATER SCIENTISTS

ndapanda@geoenvirosol.co.za

From: ndapanda@geoenvirosol.co.za
Sent: Tuesday, 20 February 2024 9:28 am
To: 'Zeeuw'
Subject: FW: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY AT ONAMULUNGA-ONIIPA TOWN
Attachments: SKM_C25823020720570.pdf

Are you referring to this letter?

From: Ndapewa Ndakunda <nndakunda@oniipatc.org.na>
Sent: Tuesday, 7 February 2023 2:08 pm
To: ndapanda@geoenvirosol.co.za
Cc: 'Onamulunga Service Station CC' <accounts@jmtradingcc.com>; 'Martha Iitula' <miitula@oniipatc.org.na>; 'Heicky Amwele' <hamwele@oniipatc.org.na>
Subject: RE: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY AT ONAMULUNGA-ONIIPA TOWN

Dear Ndapanda,

Attached please find our comments.

Regards,

Ndapewa N Ndakunda
Manager: Technical, Planning & Community Services
Tel: +264 65 245700/11
Email: nndakunda@oniipatc.org.na

From: ndapanda@geoenvirosol.co.za <ndapanda@geoenvirosol.co.za>
Sent: Tuesday, 08 November 2022 14:03
To: 'Ndapewa Ndakunda' <nndakunda@oniipatc.org.na>
Subject: RE: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY AT ONAMULUNGA-ONIIPA TOWN

Goo day Ms Martha,
Noted with thanks.

From: Ndapewa Ndakunda <nndakunda@oniipatc.org.na>
Sent: Tuesday, 8 November 2022 1:20 pm
To: ndapanda@geoenvirosol.co.za; miitula@oniipatc.org.na; 'Maria Shuukwanyama' <mshuukwanyama@oniipatc.org.na>
Cc: hasholondapanda@gmail.com; wkambonde@oniipatc.org.na
Subject: RE: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY AT ONAMULUNGA-ONIIPA TOWN

Dear Ndapanda,

We acknowledge receipt of the notice. We will send through our comments before the end of the week.

Best regards,

ONIIPA TOWN COUNCIL

Tel: +264 65 245700/10
Fax: +264 65 245 711

PO Box 25179
Onandjokwe, Namibia

Onandjokwe Road
Oniipa, Namibia

OFFICE OF THE CHIEF EXECUTIVE
Our Ref: *12/P*

Enquiries: Ms. Ndapewa Ndakunda
E-mail: nndakunda@oniipatc.org.na

07 February 2023

The Environmental Consultant
Nam Geo-Enviro Solutions
P O Box 3343
Windhoek

Dear Ms. Hasholo,

RE: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA IN ONIIPA TOWN , OSHIKOTO REGION, NAMIBIA.

1. The Council is hereby acknowledging receipt of your letter dated 02 November 2022 on the above-referenced subject. We thank you for soliciting the Council's input on the proposed fuel bulk storage and handling facility. Herein please find our comments on the project.

   i. Please ensure that public participation has been conducted in accordance with the EIA Regulations. The Council will require proof that this has been carried out.
   ii. The site is situated in a township that is not yet proclaimed. After the approval of the EIA, the proponent is advised to apply for consideration of Preliminary Layout Approval. This can be done through our Property and Land Management Office.
   iii. According to our town planning, the proposed site for the fuel deport is situated in an area zoned as a Public Open Space. The zoning came about because of the erf's propensity to stormwater ingress. The proponent is required to submit a stormwater management plan along with his/her developmental plans to the Council for approval.
   iv. There is a 15m NAMWATER Servitude in the proposed site. This servitude must be respected at all costs.
   v. There is a 20m service road in the proposed site. This servitude must be respected at all costs.

2. We look forward to receiving a copy of the Environmental Impact Assessment.

Yours sincerely,

.....
MR. HEIKKY N. AMWELE
CHIEF EXECUTIVE OFFICER
Ha/nn/mi/02-2023

ONIIPA TOWN COUNCIL
0 7 FEB 2023
REPUBLIC OF NAMIBIA

REGISTER FOR INTERESTED AND AFFECTED PARTIES (I/APS)

Environmental Impact Assessment (EIA) for the construction and operations for a new fuel bulk storage and handling facility (depot) at Oniipa in Oshikoto region

Name/organization	Address	Capacity	Email address	Comment
Oniipa town council	Oniipa			• Please ensure that public participation has been conducted in accordance with the EIA Regulations. The Council will require proof that it has been carried out. • The site is situated in a township that is not yet proclaimed. After the approval of the EIA, the proponent is advised to apply for consideration of Preliminary Layout Approval. This can be done through our property and Land Management Office. • According to our planning, the proposed site for the fuel depot is situated in an area zoned as a Public Open Space. The zoning came about because of the erf's propensity to stormwater ingress. The proponent is required to submit a stormwater management plan along with his/her developmental plans to the council for approval. • There is a 15m NAMWATER Servitude in the proposed. This servitude must be respected at all costs. • There is a 20m service road in the proposed site. This servitude must be respected at all costs.
Naalyaluke Keendjele	Ondangwa			• This is a good idea; it will be development for the community. • I am hoping for local people to be employed by this project
Mr Vaino Mudhengi	Oluno		mudhengivaino@gmail.com	• The storage of fuel and safety should be investigated in the EIA • Let the process continue with the establishments
Mrs Linda Amutenya			Linda.amutenya@gmail.com	• The proponent should comply with safety • I recommend safety to be investigated in the EIA

				• I recommend that the proponent comply with safety rules and avoid spilling of fuel on the ground.
Lorna Mutota	Oniipa	pensioner	mutota@hotmail.com	• Safety and water conservation should be considered in the EIA.
Mrs Sylvia Sakaria				• Safety should be investigated in the EIA.
Mr Thomas Amuthenu				• Safety should be investigated in the EIA
Mr Julius Moongo	Oniipa	JnS Farming	Jnsfarming1@gmail.com.na	• Investigate possible hazards to humans and animals in the vicinity incases of the spillage of the material and hydrocarbon to be stored at the establishment. • Please be very open on the potential impacts this establishment will have on the community, positive or negative.

Nam
Geo-Enviro
Solutions

Response to Interested and Affected Parties (I/APs)

Subject: Environmental Impact Assessment (EIA) for the proposed construction and operations of a new fuel bulk storage and handling facility (depot) at Onamulunga in Oniipa town, Oshikoto region

Dear potential interested and affected parties (I/APs)

Firstly, I would like to thank you all for showing interest in this study. We have received all your comments and concerns regarding the proposed project. This email therefore serves to give feedback to all the comments and concerns raised by interested and affected parties regarding the proposed construction and operations on a new fuel handling and bulk storage facility (depot) at Onamulunga in Oniipa Town, Oshikoto region.

Please note that the Environmental Impact Assessment Report (EIAR) draft has been attached to this document, stipulating all the potential negative and positive impacts of the proposed project. In addition, an Environmental Management Plan (EMP), stipulating mitigation measures of all the identified impacts in the Environmental Impact Assessment Report has also been attached.

Kindly find below responses to your comments and concerns:

1.Proper consultation of public participation process

During this EIA, a public participation process was conducted. All the interested and affected parties were invited through various platforms as follows: The project was advertised in two local newspapers, for two consecutive weeks. The newspaper adverts indicated the date of a public meeting, which was held at Punyu Hotel in Ondangwa. A presentation was made during the public meeting, outlining the potential impacts of the project and legal laws, policies and regulatory frameworks guiding the proposed project. The attendees were given an opportunity to raise their concerns and issues regarding the project. Moreover, the attendees were given handouts of the Background Information Document (BID) of the project. Notice posters were placed at different areas, around and near the proposed site of the project. In addition, invitation letters were sent to local authorities, to comment and

raise their concerns regarding the project. The residents residing near the proposed site were also invited through forms, to raise their concerns.

See proof of public participation process in the attached EIA Report, under section 12 and appendix B.

2. Fuel storage and safety

The fuel will be stored in above ground storage tanks, enclosed in bund walls. The depot facility will encompass the necessary infrastructure to ensure safe storage and distribution of fuel in bulks. This includes containment systems and constructing bund walls around the storage tanks to prevent fuel spills and leaks from reaching the environment. Spill containment systems will be installed around the area where fuel is handled. Pumps and other fuel transfer equipment will be used to efficiently transfer fuel from the storage tanks to vehicles or other storage containers. A robust monitoring and control systems to track inventory, detect leaks or spills, and ensure safe operating conditions will be developed. This may involve using sensors, gauges, and automated control systems to monitor tank levels, pressure, temperature, and other critical parameters. A design of the project will be developed prior commencement of any work on site.

The depot associated infrastructures will aim to prevent the contamination of surface soil and water and contamination of underground water. Only professionals will be used to handle fuel.

Fire protection is crucial in a fuel depot due to the highly flammable nature of fuel. Fire suppression systems such as fire extinguishers, sprinkler systems will be installed on site to mitigate the risk of fire explosions. Adequate safety equipment will be provided throughout the construction and the operation phases. This includes items like fire extinguishers, personal protective equipment (PPE) for workers, safety signs, emergency showers and eyewash stations, and spill containment kits. Regular safety training and drills will also be conducted for all personnel.

The depot will have appropriate security measures in place to prevent unauthorized access and protection against theft or tampering. This may include security fencing, access control systems, surveillance cameras, and adequate lighting.

See the project overview in section 10 of the attached EIA Report and stipulated mitigation measures on safety in the attached EMP report.

As an integral part of the environmental assessment, an Environmental Management plan (EMP) has been developed with mitigation measures to manage all potential project impacts. According to the Regulations (2012) of the Environmental Management Act (no.7 of 2007), registered, and affected parties should be granted an opportunity to comment in writing on the draft reports (Scoping Assessment report and Environmental Management Plan) before submission to the Environmental commissioner.

See attached draft of the Environmental Scoping Report and Environmental Management Plan (EMP) for more details.

Should you have any more queries, please do not hesitate to contact our office.

Regards

Ndapanda

Appendix C: Proof of land use agreement

ONIIPA TOWN COUNCIL

Tel: +264 65 245700/10
Fax: +264 65 245 711

PO Box 25179
Onandjokwe, Namibia

Onandjokwe Road
Oniipa, Namibia

Enquiries: Ms. Maria T Shuukwanyama
E-mail: mshuukwanyama@oniipatc.org.na

OFFICE OF THE CHIEF EXECUTIVE
Our Ref: *9/17*

01 November 2023

TO WHOM IT MAY CONCERN

This serves to confirm that **Joseph Kondjeni Ndjembo ID No. 75040500122** is the leaseholder of a portion of land in Onamulunga A, **Oniipa Town and Townlands No. 1164.** The portion of land referred to was obtained by virtue of Communal Land Rights that was granted by Ondonga Traditional Authority in terms of the Traditional Authorities Act, 2000 (Act 25 of 2000) and the Communal Land Reform Act, 2002 (Act 5 of 2002). Moreover, the said portion of land falls within Oniipa Townlands. However, the said land is in a portion of land yet to be proclaimed as an extension, thus there is currently no Title Deeds issued at that portion.

Please accord him any support that they might require with developmental plans of this land.

We trust that you will find this in order.

Yours sincerely,

MR. HEIKKY N. AMWELE
CHIEF EXECUTIVE OFFICER
E-mail: hamwele@oniipatc.org.na

ONIIPA TOWN COUNCIL
OFFICE OF THE CHIEF EXECUTIVE OFFICER
01 NOV 2023
P.O BOX 25179, ONANDJOKWE
TEL: 065 245 700/10
FAX: 065 245 711
REPUBLIC OF NAMIBIA

Appendix D: Wholesale licence

MINISTRY OF MINES AND ENERGY

PETROLEUM PRODUCTS AND ENERGY ACT, 1990
PETROLEUM PRODUCTS REGULATIONS (2000)

WHOLESALE LICENCE

[Regulation 12(4)]

WHOLESALE LICENCE		Licence No. W/190/2017
Name of licence-holder	**Transpetro Group Namibia (Pty) Ltd**	
Address of licence-holder	**Physical Address**	**Postal address**
	B1 Main Road Onethindi Settlement Namibia	P.O. Box 837 Ondangwa Namibia
Location of storage facilities (if necessary attach separate page)	Will utilize Puma Energy Namibia (Pty) Ltd's storage facilities	
Conditions applicable to licence *See next page for general and special conditions applicable to licence.*		
Date of issue of licence	*01 September 2017*	

Issued by the Minister of Mines and Energy in terms of regulation 12(4), on
01 September 2017 **at** **Windhoek**

Official Stamp (for office use)

.....
Minister: Mines and Energy

Appendix E: CV of EAP

Nam Geo-Enviro Solutions

Occupation

- Environmental officer

Education

- Bachelor of Science (Environmental Biology) Honours degree (University of Namibia)

NDAPANDA HASHOLO

Key Experiences:

- Environmental Assessment & Management
- Ecology, Climate & Livelihoods
- Project Planning and Management

Project Experience

2022- ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
-Construction and operation of an abattoir for a piggery on Farm Oribib in Outjo, Kunene Region, Namibia

2022- Environmental monitoring and evaluation
-Operation of existing Solar Plant in Roshpinah, Karas Region Region, Namibia.

2022- ECC RENEWALS

-Ketu 2000 service station at Okalongo in Omusati region

-Onamulunga service station at Oniipa in Oshikoto region

-Henadava Puma service station in Katutura, Windhoek, Khomas region

-Soweto service station in Katutura, Windhoek, Khomas region

-Klein Windhoek Puma service station, Windhoek, Khomas region

-Nelson Mandela service station, Windhoek, Khomas region

2022-ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Ketu 2000 service station at Okalongo in Omusati region

-Onamulunga service station at Oniipa in Oshikoto region

-Henadava Puma service station in Katutura, Windhoek, Khomas region

-Soweto service station in Katutura, Windhoek, Khomas region

-Klein Windhoek Puma service station, Windhoek, Khomas region

-Nelson Mandela service station, Windhoek, Khomas region

2023- ENVIRONMENTAL MONITORING AND EVALUATION

Operation of existing Solar Plant in Roshpinah, Karas Region
Region, Namibia.

EMPLOYMENT RECORD

2022-Present Nam Geo-Enviro Solutions Environmental Officer

2022 - Nam Geo-Enviro Solutions Environmental Intern

CERTIFICATION

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

_____ Date: 23 September 2022

Signature of staff member or authorized representative of the staff

Appendix F: EMP

ENVIRONMENTAL MANAGEMENT PLAN (EMP) REPORT

FOR THE CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONIIPA IN OSHIKOTO REGION, NAMIBIA

PROPONENT:	ENVIRONMENTAL CONSULTANT:
TRANSPETRO GROUP NAMIBIA PTY (LTD) P.O.BOX 837 ONDANGWA EMAIL: jmtrading@iway.na	**NAM GEO-ENVIRO SOLUTIONS** P.O.BOX 3343 WINDHOEK TEL: 061402246 EMAIL ADDRESS: info@geoenvirosol.co.za Nam Geo-Enviro Solutions
EAP:	**Ndapanda Hasholo**
Reviewed by:	**Zeeuw Mukuve**

DATE: MARCH 2024

CONTENTS

List of tables

ACRONYMS

DEA	Department of Environmental Affairs
EAP	Environmental Assessment Practitioner
EAR	Environmental Assessment Regulations
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ECC	Environmental Clearance Certificate
ESA	Environmental Scoping assessment
I&AP	Interested and affected parties
MME	Ministry of Mines and Energy
NGS	Nam Geo-Enviro Solutions

1. Introduction

Environmental management plan (EMP) is a comprehensive approach designed to identify, mitigate, and manage potential environmental impacts associated with a particular project that has potential significant environmental impact. The EMP outlines measures to minimize negative effects on the environment, while maximizing the positive impacts.

This Environmental Management Plan (EMP) document was formulated specifically for the proposed construction and operations of a new fuel bulk storage and handling facility (depot) at Oniipa in Oshikoto region. An EMP report is an onsite working document, and all contractors and subcontractors taking part in the project should be made aware of the contents of the EMP.

2. Objectives

The environmental management plan (EMP) aims to take a pro-active route by addressing potential significant environmental impacts before they occur. The objectives of the EMP are:

- To outline mitigation measures to manage environmental and socio-economic impacts associated with the project
- Provide a framework for implementing the management actions.
- To ensure that the project will comply with relevant environmental legislations of Namibia and other requirements throughout its operation.
- To promote sustainable development

3. Legal Framework: Legislations, Policies and Guidelines

This section outlines the regulatory framework relevant to the proposed project. All identified crucial pieces of legislation should be adhered to, as indicated in their respective pieces of legislation. In cases where external assistance is required to ensure compliance, the project proponent is encouraged to seek guidance from qualified and certified professionals.

The Environmental Management Act No. 7 of 2007 is the primary custodian of the environment which aims 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; to provide for a process of assessment and control of activities which may have significant effects on the environment and to provide for incidental matters. However, this section does not only focus on the EMA, but also looks at other relevant legislatives.

The table below outlines regulatory framework relevant to the project

Table 1: Regulatory framework relevant to the project

Aspect	Regulations	Relevant provisions	Relevance to the project
The Constitution	***The constitution of Namibia (1990)* First Amendment Act 34 of 1998**	-"The State shall actively promote and maintain the welfare of the people by adopting policies that are aimed at maintaining ecosystems, essential ecological processes and the biological diversity of Namibia. -It further promotes the sustainable utilisation of living natural resources basis for the benefit of all Namibians, both present and future." (Article 95(l)).	Through implementation of the EMP, the proponent should ensure conformity to the constitution in terms of environmental management and sustainability.
Environment	***Environmental Management Act no. 7 of 2007***	-Requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27). -Requires adequate public participation during the environmental assessment process for interested and affected parties to voice their opinions about a project (Section 2(b-c)). -According to Section 5(4) a person may not discard waste as defined in Section 5(1)(b) in any way other than at a disposal site declared by the Minister of Environment and Tourism or in a manner prescribed by the Minister. Details principles which are to guide all EIAs.	This Act and its regulations should inform and guide this EIA process. The project proponent should ensure that all provisions of the EMP are implemented, and regular environmental compliance monitoring and evaluation are conducted

	EIA Regulations GN 2007 (no.30 of 2012)	-Details requirements for public consultation within a given environmental assessment process (GN No 30 S21). -Details the requirements for what should be included in a Scoping Report (GN No 30 S8) an EIA report (GN No 30 S15).	These regulations should inform and guide this EIA process.
Oil and Gas	***Petroleum Products & Energy Act (1990)***	-The Act requires that the operation of the Fuel depot and storage facility obtains a retail license from the relevant ministry. -The Act requires incident reporting of major spillages occurring on site for pollution control.	The proponent should obtain a wholesale license from the Ministry of Mines and Energy before the operations of the fuel depot.
	South African National Standards SANS 10089-3	-Part 3: The installation of underground storage tanks, pumps/dispensers and pipe work at fuel consumer installation and storage facilities and consumer installations.	The fuel depot should be constructed according to SANS standards.
Biodiversity	***National Biodiversity Strategy and Action Plan (NBSAP2)***	-The action plan was operationalised in a bid to make aware the critical importance of biodiversity conservation in Namibia, putting together the management of matters to do with ecosystems protection, biosafety, and biosystematics protection on both terrestrial and aquatic systems.	Forming part of the EIA and EMP for this project, the proponent should consider all associated impacts, both acute and long term, and should propose methods and ways to sustain the local biodiversity.
Soil	***Soil Conservation Act 76 of 1969***	- This act makes provision for combating and for the prevention of soil erosion, it promotes the conservation, protection and improvement	Fuel depots are mainly associated with fuel spillages which can contaminate soil. This document aims at guiding

		of the soil, vegetation, sources, and resources of the Republic of Namibia.	the proponent during operation and perhaps decommissioning to prevent soil erosion and contamination during operation of the depot.
Waste	***Hazardous Substance Ordinance 14 of 1974***	-Provisions for hazardous waste are amended in this act as it provides "for the control of substances which may cause injury or ill-health to or death of human beings, as a result of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the prohibition and control of the importation, sale, use, operation, application, modification, disposal or dumping of such substance; and to provide for matters connected therewith"	The proponent shall separate waste at the site. The proponent shall ensure that all possible "hazardous" categorised substances and waste shall be handled by a certified hazardous waste handler.
	Pollution and Waste Management Bill (draft)	-This bill defines pollution and the different types of pollution. It also points out how the Government intends to regulate the different types of pollution to maintain a clean and safe environment. - The bill also describes how waste should be managed to reduce environmental pollution. Failure to comply with the requirements is considered an offence and punishable.	The project should be conducted in a manner which is advised by the bill, to minimize the generation of waste at the site. - A waste management strategy that follows recycling, reuse and reducing should be commissioned throughout the operations.

	Atmospheric Pollution Prevention Ordinance 11 of 1976	-The Act requires that there is a need to register a controlled area with certificate to operate air polluting activities. The retail/wholesale license covers all elements and requirements of this Act.	The proponent should comply with this act.
Water	***Water Act 54 of 1956***	-The Water Resources Management Act 24 of 2004 is currently without regulations; therefore, the Water Act No 54 of 1956 is still in force: -A permit application in terms of Sections 21(1) and 21(2) of the Water Act is required for the disposal of industrial or domestic wastewater and effluent. -Prohibits the pollution of underground and surface water bodies (S23 (1). -Liability of clean-up costs after closure/ abandonment of an activity (S23 (2)). -Protection from the surface and underground water pollution.	The proponent should comply to the provisions of this act.
Health and Safety	***Labour Act (No 11 of 2007) in conjunction with Regulation 156, 'Regulations Relating to the Health and Safety of Employees at work'.***	-135 (f): "the steps to be taken by the owners of premises used or intended for use as factories or places where machinery is used, or by occupiers of such premises or by users of machinery about the structure of such buildings of otherwise to prevent or extinguish fires, and to ensure the safety in the event of a fire, of persons in	The proponent will employ several people and shall ensure securing a safe environment and preserving the health and welfare of employees at work. This will include applying appropriate hazard management plans and enforcing Occupational Health and Safety (OHS) enforcement by contractors

		such building;" (Ministry of Labour and Social Welfare). -This act emphasizes and regulates basic terms and conditions of employment, it guarantees prospective health, safety and welfare of employees and protects employees from unfair labour practices.	
	Public Health and Environmental Act, 2015	-Under this act, in section 119: "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 compliance with the terms of the Act.
Road	***Road Ordinance 1972 (Ordinance 17 0f 1972)***	-Width of proclaimed roads and road reserve boundaries (S3.1) -Control of traffic during operational activities on the trunk and main roads (S27.1) -Infringements and obstructions on and interference with proclaimed roads. (S37.1) -Distance from proclaimed roads at which fences are erected (S38).	The project will ensure compliance with the terms of the Road Ordinance.
Local authority	***The Regional Councils Act (No. 22 of 1992)***	-This Act sets out the conditions under which Regional Councils must be elected and administer each delineated region. From a land use and project planning point of view, their duties include, as described	The relevant Regional Councils are I&APs and must be consulted during the Environmental Assessment (EA) process.

		in section 28 “to undertake the planning of the development of the region for which it has been established with a view to physical, social and economic characteristics, urbanisation patterns, natural resources, economic development potential, infrastructure, land utilisation pattern and sensitivity of the natural environment. -The main objective of this Act is to initiate, supervise, manage, and evaluate development.	

3.1. International conventions and protocols relevant to the project

It is vital to note that there are international conventions and protocols which aim to protect the environment to which Namibia is a signatory. These various international conventions and protocols which relate to the project are listed below:

- Vienna Convention for the protection of the ozone layer, 1985.
- United nations framework convention on climate change 992.
- Convention of Biological Diversity (1992).
- African Convention on the Conservation of Nature and Natural Resources (1968)

3.2. Sustainability principles relevant to the project

Apart from the above-mentioned regulatory framework, the following sustainability principles need to be taken into consideration, particularly to achieve proper waste management and pollution control.

3.3. Cradle to grave responsibility

This principle states that those who manufacture potentially harmful products should be liable for their safe production, use, and disposal. Those who initiate potentially polluting activities should be legally responsible for their commissioning, operation, and decommissioning.

3.4. Precautionary principle

This principle states that if there is any doubt about the effects of a potentially polluting activity, a cautious approach should be adopted.

3.5. The polluter pays principle

A person who generates waste or causes pollution on the environment should pay the costs of pollution including the costs of preventing further damages.

4. Certifications required for the project

Permits and licenses are required as part of compliance and authorization. All permits and licenses should be obtained before commencement of the project.

The table below shows key licenses required for this project:

Table 2**:** certifications required for the project

Certification	Authority	Status
Wholesale retail licence	Ministry of Mines and Energy	Acquired
Consent letter of Road construction	Road Authority (Ministry of Work and Transport)	Acquired
Lease agreement for land ownership	Local Authority	Acquired
Consent letter from fuel supplier	Puma Energy Namibia (Pty) Ltd	Acquired
ECC	Ministry of Environment, Forestry and Tourism	Scoping in progress

5. Roles and responsibilities

This section outlines the roles and responsibilities of the primary stakeholders engaged in formulating, executing, and evaluating the EMP for the proposed project. It is essential for the proponent to designate competent individuals, including an Environmental Control Officer, Project Manager, and Health and Safety Officer, to ensure the successful implementation EMP.

5.1. Competent authorities

The Ministry of Mines and Energy and Department of Environmental Affairs: Ministry of Environment, Forestry and Tourism are the competent authorities for this project. They are responsible for reviewing the EMP and issuing of the ECC.

5.2. Proponent (Transpetro Group Namibia Pty Ltd)

- Transpetro Group Namibia Pty Ltd should delegate suitably qualified person(s) with the responsibility to ensure implementation of the EMP.
- Protect and rehabilitate the environment.
- Give warnings and impose fines and penalties on the Contractor if the Contractor neglects to implement the EMP satisfactorily.
- Make sure that a copy of the EMP is readily available on-site and that all site staff are aware of its content.

5.3. Appointed contractors

- The contractor is responsible for the implementation of the EMP.
- Should be aware of any environmental matters as deemed necessary by the contractor.
- The ccontractor shall take adequate steps to educate all members of his workforce as well as his supervisory staff on the relevant environmental laws and protection requirements as described in the EMP.
- Acquire a basic understanding of the key environmental features on site and its immediate environs.
- Make sure that a copy of the EMP is readily available on-site and that all site staff are aware of its content.

5.4. Fuel supplier (Puma Energy Namibia Pty Ltd)

- Comply to the cradle to grave responsibility and polluter pays principle.
- Supply fuel to the site.

5.5. Project manager

- Liaising directly with the Environmental Control Officer (ECO) concerning the preparation and implementation of the EMP and meeting the conditions documented in the environmental clearance certificate.
- Bear the overall responsibility for managing the project contractors and ensuring that the environmental management requirements are met.
- Inform the contractors of the EMP and Environmental clearance certificate obligations.
- Approve all decisions regarding environmental procedures and protocols that must be followed.
- Have the authority to stop any activities in contravention with the EMP.
- Issue fines for transgressions of basic conduct rules and/or contravention of the EMP.

- Maintain open and direct lines of communication between the proponent and Interested and Affected Parties (I&APs) about environmental matters.
- Attend regular site meetings and inspections where required.

5.6. Environmental Control Officer

- Required to conduct inductions of the EMP and ensure implementation of required measures and conditions.
- Conduct environmental monitoring as per EMP requirements.
- Monitor the performance of the contractors and ensure compliance with the EMP.
- Maintain, update, and review the EMP.
- Communicate all amendments of the EMP to the relevant stakeholders.
- Liaison between the contractor, authorities, and other key stakeholders on all environmental concerns.

5.7. Occupational Health and Safety Officer

- Ensure that safety is practiced for all activities on site.
- Conducting incidents investigation as well as coming up with corrective and preventative actions.
- Prepare and implement safety procedures.
- Communicate all safety-related issues.
- Carry out any incident/accident investigations at the site.
- Conduct training on safety.
- Record accidents and incidents at the site.
- Issuing PPE to employees
- Carry out Safety Health and Environmental awareness inductions, the following topics, at least but not limited to, should be covered, (the importance of complying with the relevant Namibian and International legislation, roles, and responsibilities including emergency preparedness, basic rules of conduct the Do's and Don'ts.)

6. Management of the project impacts on the environment

In this section, project impacts and their mitigation measures are stipulated. The proponent and all appointed contractors should ensure proper implementation of these measures.

Before commencement of any work, all staff should be informed of the content of the EMP. The proponent, contractor, project manager and HSEO have the responsibility for implementing the EMP and ensuring their staff members comply with the guidelines.

6.1. Negative impacts

6.1.1. Impact on biodiversity

Biodiversity loss is likely to occur during construction phase due to earthworks. Animal habitats (vertebrates and invertebrates) might be affected; however, this impact will be localised.

Mitigation measures:

- Massive clearing of vegetation shall not be allowed.
- Avoid the killing of species viewed as dangerous such as various snakes – when on site.
- Off-road driving should not be allowed, and only existing tracks should be used to avoid trampling of organisms of conservation concern.
- The base camp should be set up in a less ecological sensitive area.
- Stick to speed limits.
- No capturing of animals and littering.
- Remove and relocate slow-moving vertebrate fauna (e.g., tortoise, chameleon, etc) to suitable habitat elsewhere on the property.
- Avoid introducing ornamental plants, especially potential alien species as part of the landscape of the campsite, but rather use localized indigenous species, should landscaping be attempted, which would also require less maintenance.
- The machinery and equipment which emit excessive noise should be limited and restricted to certain hours only.
- No campsite should be permitted outside designated areas.
- No operation of any kind should be allowed after dusk.

6.1.2. Noise

During construction, heavy machinery like excavators and bulldozers are commonly used, generating significant noise levels especially near residential or sensitive areas. Fuel depots experience high vehicle traffic, including delivery trucks, transport vehicles, contributing to noise, especially during acceleration, deceleration, or heavy braking. Generators and power equipment used for continuous operation also emit noise.

Employees, animals, and nearby residential areas are directly impacted by this noise. ISO 18001 standards mandate that workers should not be exposed to noise levels exceeding 85 decibels per 8 hours.

Mitigation measures:

- Employees should be equipped with ear protection equipment such as earmuffs and plugs.

- Employees should be limited to working hours only at most 8 hours per day.
- Noise pollution should be addressed and mitigated at an early stage.
- Noise from operation vehicles and equipment on-site should be reduced to acceptable levels.
- Ensure regular maintenance of machinery and equipment.
- Noise levels should be checked regularly.
- Noise levels should not be equal to or exceed 85dBA for workers working an 8-hour shift (according to ISO 18000).

6.1.3. Dust

Dust will be produced during construction phase. This might affect the workers and adjacent areas. Dust particles can penetrate the human body and can cause respiratory tract irritation, illness (such as asthma attack, cough, and bronchitis), and eczema if they are exposed to high amounts of dust.

Mitigation measures:

- Personnel are required to wear personal protection equipment such respirator if excessive dust is created for prolonged working periods.
- Use of dust suppression method such as sprinkling of water.
- Speeds limits on-site should be restricted to below 40km/hr to generate minimal dust.
- As per World Health Organisation (WHO), the dust particulate matter should be in the range of 150-230 µg/m^3 on an annual average and 60-90 µg/m^3on a 24-hour average.
- Construction warning signs and heavy vehicle visibility methods should be implemented during construction period to alert people and traffic frequenting the area.

6.1.4. Contamination of surface soil and water

The primary threats to soil and surface water pollution at fuel depots are fuel spillages and leaks. These incidents typically happen during fuel dispensing into vehicles and when fuel tanker trucks unload fuel into storage tanks. Surface spillages are mainly caused by overfilling tanks, leaks, and pipe bursts.

If surface spillages are not properly managed, they have the potential to pollute surface soils. Soil contaminated by petroleum substances can negatively impact soil health by harming soil microorganisms, decreasing their population and activity. Additionally, surface spills can lead to contamination of surface water bodies, as they may be carried into rivers and streams by floods and rain, thereby increasing the risk of further groundwater contamination.

Mitigation measures

- proper training of staff on fuel storage and handling.
- There should be a spill containment slab at forecourt and filler Points, covering the surfaces where fuels are handled to prevent groundwater pollution.
- Spillage control procedures must be in place according to SANS 10089-1:2008 and SANS 100131-2 standards, or better.
- contaminated soil shall be collected in a holding tray or drum, and which will then disposed at a licensed hazardous waste site.
- Spillages on site must be cleaned up immediately and if the spill is more than 200L it must be reported to the Ministry of Mines and Energy.
- An emergency response plan to give guidelines on spillages or leakages.
- All waste must be disposed of at approved disposal sites.
- No burial of any waste or burning should be done on-site.
- Sand buckets should be available on site to clean up minor oil spills.
- Standby oil cleaners and absorbents should be available during the decommission stage.
- All operational surfaces at the fuel retail facility must be installed with spill containment areas as per the relevant SANS standards (or better).

6.1.5. Contamination of underground water

The potential risk to underground water at a fuel depot primarily arises from the possibility of fuel leaks or spillages seeping into the ground and contaminating the groundwater. Leakage from storage tanks, pipelines, or equipment failure can result in the infiltration of petroleum products into the soil, eventually reaching and polluting underground water sources. This contamination poses significant environmental and public health concerns, as groundwater is a vital source of drinking water for many communities. Moreover, poorly constructed, or aging tanks are more prone to corrosion, increasing the risk of fuel seepage into the groundwater.

Contamination of underground water by a sewer system at a fuel depot can have serious environmental and health implications. When a sewer system is not properly designed, constructed, or maintained, it can lead to leaks or breaks in the infrastructure, allowing sewage to seep into the surrounding soil and potentially reach the groundwater.

Mitigation measures

- Proper training of staff and installation of suitable containment structures.
- Install oil interception system.
- Install isolating surface drainage system.
- There should be a spill containment slab at forecourt and filler Points, covering the surfaces where fuels are handled to prevent groundwater pollution.

- Storm water drainage system should be installed.
- The condition of the fuel reticulation system should be checked regularly and repaired to prevent leakages.
- All waste must be disposed of at approved disposal sites.
- All operational surfaces at the fuel retail facility must be installed with spill containment areas as per the relevant SANS standards (or better).

6.1.6. Hydrocarbon waste

During fuel handling and transfer, spills and leaks can occur due to equipment failure, human error, or accidents. Storage tanks may develop leaks over time, requiring maintenance like welding or cleaning, generating hydrocarbon waste. Tanker trucks need cleaning to remove residual hydrocarbons post-delivery, producing waste. Soil, rainwater, or runoff that comes into contact with stored fuel can become contaminated with hydrocarbons. This water needs to be properly managed to prevent environmental pollution.

Mitigation measures

- Hydrocarbon waste management is vital among employees and management.
- Use of absorbents are essentially recommended for containing spillages.
- Adequate supplies of absorbents should be readily available at all times.
- Waste separation should be implemented to avoid mixing of contaminated waste and general waste
- Proper monitoring of the product levels in the tank must take place to eliminate overfilling
- Appointment of a certified waste handling contractor to handle all hydrocarbon waste
- Waste minimization policy. bioremediation of contaminated soil
- Frequently cleaning of oil/ water separator
- Construct spill containment slabs around the pump
- The site should have spillage bins and clean up kits
- Construct oil/water separators

6.1.7. Emission of hydrocarbon vapours

Hydrocarbons released during fuel handling and storage contribute to greenhouse gas emissions, particularly carbon dioxide and methane. These gases trap heat in the atmosphere, leading to global warming and climate change.

Certain hydrocarbons, such as benzene and toluene, are classified as air toxics or hazardous air pollutants. Prolonged exposure to these substances, even at low levels

can cause serious health effects, including cancer, neurological disorders, and reproductive issues. Some hydrocarbons have strong odors, which can be a nuisance to nearby residents and workers at fuel depots.

Mitigation measures

- All venting systems and procedures should be designed according to SANS standards and placed in a sensible manner.
- Vent pipes should be placed in such a manner as to prevent impact on potential receptors.
- Vehicle idling time should be minimized by putting up educative signs.

6.1.8. Risk of fire and explosions

Lack of proper maintenance and inspection of equipment, storage tanks, pipelines, and electrical systems can lead to equipment failure or leaks. Leaks or spills of flammable liquids can create an explosive atmosphere, increasing the risk of fire and explosions. Improper handling of flammable materials, incorrect procedures, inadequate training, or negligence can result in accidents that trigger fire and explosions at fuel depots.

Mitigation measures

- Sufficient water should be made available on site for firefighting purposes.
- Ensure that all fire-fighting devices are in good working order.
- Regular inspections and services should be carried out to inspect and test firefighting equipment.
- All personnel must be sensitised about fire protection measures and good housekeeping such as the removal of flammable materials.
- All fire precautions and fire control at the fuel retail facility must be in accordance with SANS 10089-1:1999, or better.
- The Emergency Response Plan should be implemented.
- Signs of “no’’ smoking and use of cell phones should be displayed on site.
- Fire guards must also be constructed at the site to prevent the spread of fires.
- Fuel tanks should be established away from potential neighbouring fire points.
- All fire precautions and fire control at the service station must be in accordance with SANS 10089-1:2008, or better.

6.1.9. Occupational Health Safety and Security

Fuel depots store flammable and volatile materials, which can pose health risks to workers if they are exposed to fumes, vapours, or spills. This exposure can lead to respiratory problems, skin irritation, or long-term health effects. Fuel depot operations, such as pumping, loading, and unloading, can generate high levels of noise and

vibration, which can impact workers' hearing and overall well-being if not properly managed.

Generally, projects attract people from different locations and backgrounds. Some anti-social behaviour such as alcohol and drug abuse may be practised. The presence of construction equipment and all associated tools may encourage theft.

Mitigation measures

- Comply with all health and safety standards specified in the Labour Act.
- Train workers how to use the equipment safely and effectively.
- Offer training on occupational health and safety.
- Safety talks to be done every day before the commencement of work.
- Emergency response plans should be present.
- Safety officer to be stationed at the site.
- Formulation of a safety health and environment workers committee.
- A fully stocked first aid kit should permanently be available on site as well as an adequately trained staff member in a position to administer first aid.
- All workers should have access to the appropriate Personal Protective Equipment (helmets, gloves, respirators, work suits, earplugs, safety goggles, and safety shoes where applicable).
- Proper ablution facility should be used and clearly marked for males and females.
- Use dust suppression measures.
- Maintain good housekeeping.
- Reduce noise exposure by isolating noisy equipment and rotate tasks.
- Conduct hazard identification and risk assessments.
- Any leakage/spillage shall be immediately attended and provision of urgent cleaning.
- Work area should be monitored to maintain work environment free from any hazards.
- Provisions of immediate accident/incident reporting and investigation.
- Safety posters and signages should be exhibited at conspicuous places.

6.1.10. Generation of waste on site

Waste found on site is typically in the form of food leftovers, plastics, cigarette butts, waste dumped on site by employees and motorists fuelling up. Cleaning solvents, degreasers, and other chemicals used for equipment cleaning or maintenance purposes can also contribute to the waste generated at fuel depots.

Mitigation measures

- Waste disposal systems should be implemented on site.
- Strictly no burning of waste on the site.
- Place water and scavenger proof bins around the site.

- Contaminated wastes in the form of soil, litter, and other material must be disposed of at an appropriate disposal site at the nearest town.
- Good housekeeping should be maintained.

6.1.11. Impact on traffic

Fuel stations require vehicles to enter and exit the premises, which can result in increased turning movements. Drivers manoeuvring in and out of fuel stations may slow down the traffic flow, especially if the entry and exit points are not designed to handle large volumes of vehicles efficiently. Additionally, fuel depots often receive regular deliveries of fuel by tanker trucks. These trucks need to access the depot, which can lead to increased truck traffic in the surrounding area.

Mitigation measures

- Designate separate entry and exit lanes for vehicles accessing the fuel depot to prevent traffic bottlenecks.
- Implement parking management strategies for depot employees and visitors to ensure efficient use of available parking spaces and minimize on-street parking.
- Install advanced warning signs along major roads leading to the fuel depot to alert drivers of upcoming entrances, exits, and potential traffic conditions, helping to manage traffic flow.

6.1.12. Archaeological impact

During the construction phase, historical resources protected under the National Heritage (27 of 2004) may be encountered during excavations. Nevertheless, the project site is not located at any known or documented archaeological site.

Mitigation measures

- If any archaeological features or objects (e.g., Pottery, bones, shells, ancient clothing or weapons, ancient cutlery, graves, etc) that possess cultural values are found, they should be barricaded off and the Namibian Heritage Council (NHC) office should be informed immediately.
- The site location where archaeological features might be found should be marked with flag tape and the GPS coordinates should be recorded.
- The proponent should adopt the Chance Finds Procedure: “a person who discovers any archaeological object must as soon as practicable report the discovery to the Council”, so that if buried archaeological remains which are not visible to surface survey may be handled in accordance with the provisions of Part V Section 46 of the National Heritage Act (27 of 2004).

6.1.13. Risk and spread of HIV/AIDS

Migration of workers to projects like this often from areas with different HIV rates can increase risky sexual behaviours and contribute to HIV spread. Challenges accessing HIV services the situation. Limited time for workers to visit partners may lead to seeking new ones locally, and workplace condom availability may be insufficient.

Mitigation measures

- Allocate time for workers to visit their families.
- Sensitization campaign to the staff on HIV/AIDS and other STDs.
- Free distribution of condoms on site.
- Free counselling to those already affected by the virus.

6.1.14. Cumulative impacts

Cumulative impacts occur when the effects of an action combine with other effects in a specific place and time, leading to environmental degradation. It involves the incremental changes caused by past, present, or foreseeable actions alongside the project. For instance, extensive vegetation clearing reduces plant species abundance, diminishing food production for fauna and allowing invasive species to dominate. Contamination of ground and surface water lowers quality, leading to bioaccumulation and contamination in the food web, posing health risks.

Mitigation measures

- Cleared vegetation should be compensation by planting more than cleared.
- The protected and endemic species should be re-introduced in the area.
- Off-road driving should not be allowed, and only existing tracks should be used to avoid trampling of organisms of conservation concern.
- No burial of any waste or burning should be done on-site since all waste must be disposed of on approved disposal sites.
- There should be a proper ablution facility.
- Usage of drip trays to prevent spillage of oil and lubricants which can affect the soil and water and groundwater pollution.
- Waste oils and fuels from drip trays on stationery vehicles and machinery should be disposed of as hazardous waste at a licensed facility by an authorized hazardous waste handler.

6.2. Positive impacts

6.2.1. Employment creation

Employment will be created during the lifespan of the project. The types of jobs will range from skilled, semi-skilled and unskilled. This will improve the wealth and livelihood of people.

Enhancement measures:

- Employ locals in all casual labour in both phases.
- Gender equality, transparency should be ensured when recruiting.
- In terms of human resources development and capacity building; the contractor is to enforce training programmes that skilled workers should always train workers, when necessary, for them to enhance their performances and to gain more knowledge that they might demonstrate at other levels in the future.

6.2.2. Generation of revenue

- According to the law of Namibia, operating companies are required to pay tax to the government. The revenue generated benefit the nation at large given that money generated from tax is diverted to the public by the government.

Enhancement measure:

- Continuous payment of taxes due as regulated in the Namibian laws.

6.2.3. Local development and improvement of general welfare

- Project investors are believed to bring development to communities where they are operating as a form of enhancing social responsibility. The general welfare of locals should also be improved.

Enhancement measure:

- The proponent should be engaged in community development projects.

7. Environmental monitoring

Environmental monitoring serves as a tool to address the adverse impacts of a project on the environment throughout its lifespan and to establish guidelines for best practices. Having an environmental monitoring plan is essential as it provides valuable information and helps in detecting any unwanted environmental developments, thus allowing for the implementation of appropriate control measures. Key parameters to monitor include air quality, pollution by hazardous substances, surface and underground water contamination, risk of fire and explosions, occupational health safety and security, and waste generation.

It should be noted that bi-annual monitoring and evaluation should be conducted by an independent EAP to monitor and evaluate the environmental performance of the project as stipulated in the the EMA no.7 of 2007 and its Regulations of 2012.

The table below outlines sensitive impacts of the project and their required monitoring frequencies.

Table 3**:** Monitoring of sensitive impacts

Impact	**Type of monitoring**	**Monitoring frequency**
Surface soil and water contamination	• Proper spill clean-up. • Fuel reconciliation.	Daily
Underground contamination	• Inspection of possible storage tanks leakages.	Regularly
Emission of hydrocarbon vapours	• Proper PPE always. • Air quality tests	Daily Bi-annually
General waste	• Disposal of waste bins.	Daily
Hazardous waste	• Site inspections of oil spills. • Proper spill clean-up. • Site inspection of housekeeping. • Proper training of fuel attendants.	Daily Regularly
Risk of fire and explosions	• Regular testing and servicing of firefighting equipment.	Regularly
Occupational health, safety and security	• Conducting hazard and risk Assessments. • Safety procedures evaluation.	Daily and when necessitated

	• Health and safety incident monitoring. • Security inspection on site. • Regular supply of appropriate PPE to employees.	

8. DECOMMISSIONING AND SITE CLOSURE

Considering the environmental impacts of decommissioning any development is crucial, regardless of the uncertainty surrounding the timing of the decommissioning phase. The decommissioning phase is regarded as a separate activity that should be dealt with on its own. Therefore, it will be addressed in an Environmental Impact Assessment (EIA) conducted prior to site closure.

During the decommissioning phase of the project, the following recommendations should be considered:

- The proponent should develop a closure plan to be updated on an annual basis at least 5 years or more prior to anticipated decommissioning.
- The closure plan should outline rehabilitation methods for the site closure.
- The proponent should consider specialists input to provide direction on the closure plan to ensure best practice.
- Various stakeholders should be engaged as early as possible in the closure planning to ensure that their inputs are considered.
- The environmental commissioner should grant a successful rehabilitation for decommissioning to be considered complete.

Other recommendations are listed below:

- Removing of equipment on site.
- Removal of associated infrastructures.
- Rehabilitation of all areas impacted by the associated infrastructures.
- Planting of vegetation on site.
- Notify staff about the planned decommissioning and provide them with references to pursue work elsewhere.

9. Conclusion

This EMP document was formulated specifically for the proposed project, to identify mitigation measures of the potential project's impacts on the environment, and where impacts occur, immediate actions must be taken to reduce the escalation of effects associated with these impacts. An EMP is formulated to ensure that the activities of the project will be carried out in an environmentally sound manner.

The Environmental Management Plan report should be utilized as a practical guide on-site throughout the operational phase. It is the responsibility of Transpetro Group Namibia Pty Ltd (the proponent) and appointed contractors to actively implement the EMP, taking all necessary measures to minimize adverse environmental impacts. All contractors and subcontractors involved in the project should familiarize themselves with the contents of the EMP and plan their activities in an environmentally responsible manner.

Regular environmental monitoring is crucial to assess the environmental performance of the project. Evaluating monitoring processes on a consistent basis is crucial for enhancing performance. Any parties found to be in violation of the EMP should be held accountable for non-compliance. Rehabilitation measures should also be in place and enforced.

10. References

I. Government of Namibia. (2008). Government Gazette of the Republic of Namibia. Government notice No.1: Regulations for Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)-Windhoek.

II. Government of Namibia. (2012). Environmental Management Act no. 7 of 2007. Windhoek: Directorate of Environmental Affairs, Ministry of Environment and Tourism.

III. Guide to the Environmental Management Act No 7 of 2007(2008). Windhoek, Namibia: Ministry of Environment and Tourism.

IV. Mendelson, J., Jarvis, A., Roberts, C., and Robertson, T. (2002). Atlas of Namibia: A portrait of the land and its people. Windhoek, Namibia: Ministry of Environment and Tourism.