ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE DEVELOPMENT OF A SERVICE STATION ON ERF 7214, KUISEBMUND, WALVIS BAY

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Submitted to:
Ministry of Environment and Tourism
The Environmental Commissioners Office
Department of Environmental Affairs (DEA)
Private Bag 13306
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Distribution to:
Nambaza Investments cc
Walvis Bay Municipality
Erongo Regional Council
Ministry of Environment and Tourism
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Project Details	
Project Title	The proposed development of the *Ondonga Service Station* – Kuisebmund is planned for a parcel of land situated on erf 7214, Kuisebmund, Walvis Bay *GPS Position:* 22°55'30.5"S 14°32'25.7"E. The envisioned project entails the construction of a standard service station with 4 dispensing pumps (petrol and diesel) with 2 double walled Underground Storage Tanks of 45 cubic metres. The service station will also have a canopy covered forecourt, ablutions, tyre fitment & oil changing facilities, convenience store and street upgrading in order to provide safe access to the proposed service station.
Environmental Clearance:	Environmental Clearance Certificate to be issued in the name of the Proponent and, a copy send to the Environmental Assessment Practitioner.
Report status:	Final Environmental Impact Assessment report
Proponent:	Nambaza Investments cc (CC/2019/01680) P.O. Box 7227, Swakopmund Tel: 064 400 550 Cell: 085 1 851126 Email: tatejappy@me.com
Environmental Assessment Practitioner (EAP):	Mr. Julius Antonius Environmental, Health and Safety Consultant Mobile: +264 (0) 81 877 8855 Email: j88antonius@gmail.com
Date:	30 September 2021
Approved by:	
Signature:	

Declaration of Independence: Environmental Assessment Practitioner

I, Julius Antonius declare that:

- I act as the independent environmental assessment practitioner in this application.
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favorable to the applicant.
- I declare that there are no circumstances that may compromise my objectivity in performing such work.
- I have expertise in conducting and reviewing environmental impact assessments, including knowledge of the Environmental Management Act No 7 of 2007, its associated Environmental Impact Assessment Regulations and any guidelines that have relevance to the proposed activity.
- I will comply with the Act, Regulations and all other applicable legislation.
- I have no, and will not engage in, conflicting interests in the undertaking of the activity.
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority, and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application.
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report.
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not;
- I will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations and;
- I realise that a false declaration is an offence in terms of Regulation 30 (a) of the Regulations and is punishable in terms of Regulations 30 (2) of the Regulation and Section 43 (2) (a) and (b) of the Environmental Management Act No 7 of 2007.
- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations.

Signature (EAP)  Mr. Julius Antonius

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ABBREVIATIONS

ATM:	Automatic Teller Machine
CBD:	Central Business District
EIA:	Environmental Impact Assessment
EAP:	Environmental Assessment Practitioner
EMP:	Environmental Management Plan
ESMP:	Environmental Scoping & Management Plan
ECC:	Environmental Clearance Certificate
ECO:	Environmental Control Officer
EO:	Environmental Officer
HSES:	Health Safety Environmental and Social
RA:	Roads Authority
RAM:	Rapid Assessment Method
NHC:	National Heritage Council
EMA:	Namibia Environmental Management Act (No. 7 of 2007)
MET:	Ministry of Environment and Tourism:
DEA:	Directorate of Environmental Affairs
MME:	Ministry of Mines and Energy
NEP:	National Energy Policy
IAP:	interested and affected parties
TPS:	Swakopmund Town Planning Scheme
IUCN:	International Union for Conservation of Nature
LNAPL:	Light Non-Aqueous Phase Liquids
MSDS:	Material Safety Data Sheet
NaCl:	Sodium chloride
PPE:	Personal Protective Equipment
PPM:	Parts per million
SANS:	South African National Standards
SLAM:	Stop – Look – Assess – Manage
UNCCD:	United Nations Convention to Combat Desertification
WHO:	World Health Organization

GLOSSARY

Alternatives - A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs.

The "no-go" option constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.

Assessment - The process of collecting, organising, analysing, interpreting and communicating information relevant to decision making.

Competent Authority - means a body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.

Construction - means the building, erection or modification of a facility, structure or infrastructure that is necessary for the undertaking of an activity, including the modification, alteration, upgrading or decommissioning of such facility, structure or infrastructure.

Cumulative Impacts - in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Environment - As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values".

Environmental Impact Assessment (EIA) - process of assessment of the effects of a development on the environment.

Environmental Management Plan (EMP) - A working document on environmental and socioeconomic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.

Environmental Management System (EMS) - An Environment Management System, or EMS, is a comprehensive approach to managing environmental issues, integrating environment-oriented thinking into every aspect of business management. An EMS ensures environmental considerations are a priority, along with other concerns such as costs, product quality, investments, PR productivity and strategic planning. An EMS generally makes a positive impact on a company's bottom line. It increases efficiency and focuses on customer needs and marketplace conditions, improving both the company's financial and environmental performance. By using an EMS to convert environmental problems into commercial opportunities, companies usually become more competitive.

Evaluation – means the process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgements in order to make a decision.

Hazard - Anything that has the potential to cause damage to life, property and/or the environment. The hazard of a particular material or installation is constant; that is, it would present the same hazard wherever it was present.

Interested and Affected Party (IAP) - any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.

Mitigate - The implementation of practical measures to reduce adverse impacts.

Proponent (Applicant) - Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.

Public - Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

Scoping Process - process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.

Significant Effect/Impact - means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

Stakeholder Engagement - The process of engagement between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term “public participation”.

Stakeholders - A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (IAPs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

Sustainable Development - “Development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs and aspirations” – the definition of the World Commission on Environment and Development (1987). “Improving the quality of human life while living within the carrying capacity of supporting ecosystems” – the definition given in a publication called “Caring for the Earth: A Strategy for Sustainable Living” by the International Union for Conservation of Nature (IUCN), the United Nations Environment Programme and the World Wide Fund for Nature (1991).

EXECUTIVE SUMMARY

The proponent, Nambaza Investments cc (CC/2019/01680), plans to develop a service station (the project) on erf 7214, Kuisebmund, Walvis Bay – Ondonga Service Station. The project Environemnetal Impact Assessment (EIA) presents an assessment of the potential environmental, occupational health and safety, social and community impacts of the project. The EIA proposes risk mitigation measures and design enhancement as part of the Environmental Management Plan (EMP) for the project. The findings of this analysis reveal that the development of a service station on the project site poses net positive impacts on the community which include the creation of employment, development and will bring much needed services closer to the four low-middle income areas of Kuisebmund.

1. INTRODUCTION

Nambaza Investments cc (CC/2019/01680) plans to develop a service station (the project) on Erf 7214, Kuisebmund, Walvis Bay (the project). The service station will be named Ondonga Service Station. Ondonga is a traditional kingdom of the Ovambo people in what is today northern Namibia. Its capital is Ondangwa, and the kingdom's palace is at Onambango.

The construction, operations and decommissioning activities of the project (i.e. energy generation and distribution activities) requires compliance with the Environmental Impact Assessment (EIA) Regulations of 6 February 2012 (EIA Regulations) as promulgated in the Government Notice No 28, 29 and 30, circulated in terms of the Environmental Management Act (EMA), Act no. 7 of 2007. This ECC application is in support of the construction and operation of a fuel/service station on the site.

The EIA regulations (under section 3), requires the proponent to “designate an environmental assessment practitioner to manage the assessment process.” In line with this requirement, Mr. Julius Antonius was appointed as an independent environmental consultant (Environmental Assessment Practitioner: EAP), to undertake the EIA process. In terms of the EIA regulations, the proposed project requires an EMA EIA Scoping Process in terms of the EIA Regulations (GN no. R4878) as follow:

- Section 9.1: The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974.
- Section 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.
- Section 9.5: Construction of service stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.

In line with the above, Environmental baseline information (EBI) must be carried out and prepared as part of an Environmental Impact Assessment (EIA) study of the site. Subsequently, the competent authority is required to undertake an assessment of this EIA and issue an Environmental Clearance Certificate if they are satisfied that all aspects and hazards are addressed, and proper and sufficient mitigation controls have been proposed. On this backdrop, this report has specific objectives as follow:

- To obtain approval from the Ministry of Environment and Tourism for the project
- To provide a project overview, a background on the operational guidelines, existing laws and regulations involved in operating the service station.
- Provide a baseline study of the original status of the environment in the project site before the development of the project. This included bio-physical environment and socio-economic conditions.
- Provide an analysis of the potential environmental impacts. This includes impact prediction and significance assessment.
- Present the preparation of an environmental management plan for the project.
- Finally, present the compiled EIA report.

The structure of this document is as follow: section 2 provides the project overview, section 3 provides Environmental characterization and baseline assessment of the project, Section 4 reference all relevant legislation, Section 5 provides the impact assessment report, and section 6 concludes the EIA report.

2. Project Details

2.1 Technology & Installations

Ondonga service station will be a standard service station, with four islands, four dispensing fuel pumps (petrol and diesel) from a storage of 2 double wall underground storage tanks of 45000 litres. It will have 4 partitions, namely: a canopy covered forecourt, ablutions, ATM nook and a convenience store; completed with interlocked pavements to provide safe access to the proposed service station. The following will be installed at Ondonga service station:

- Two underground tanks (46m x2): 1 unleaded petrol and 1 diesel UST (50ppm)
- The tanks will be installed with suitable reticulation systems, three chamber separator pit and three pump islands,
- Forecourt canopy,
- And a pedestrian walkway and duct, backyard paved area, driveways, and parking.

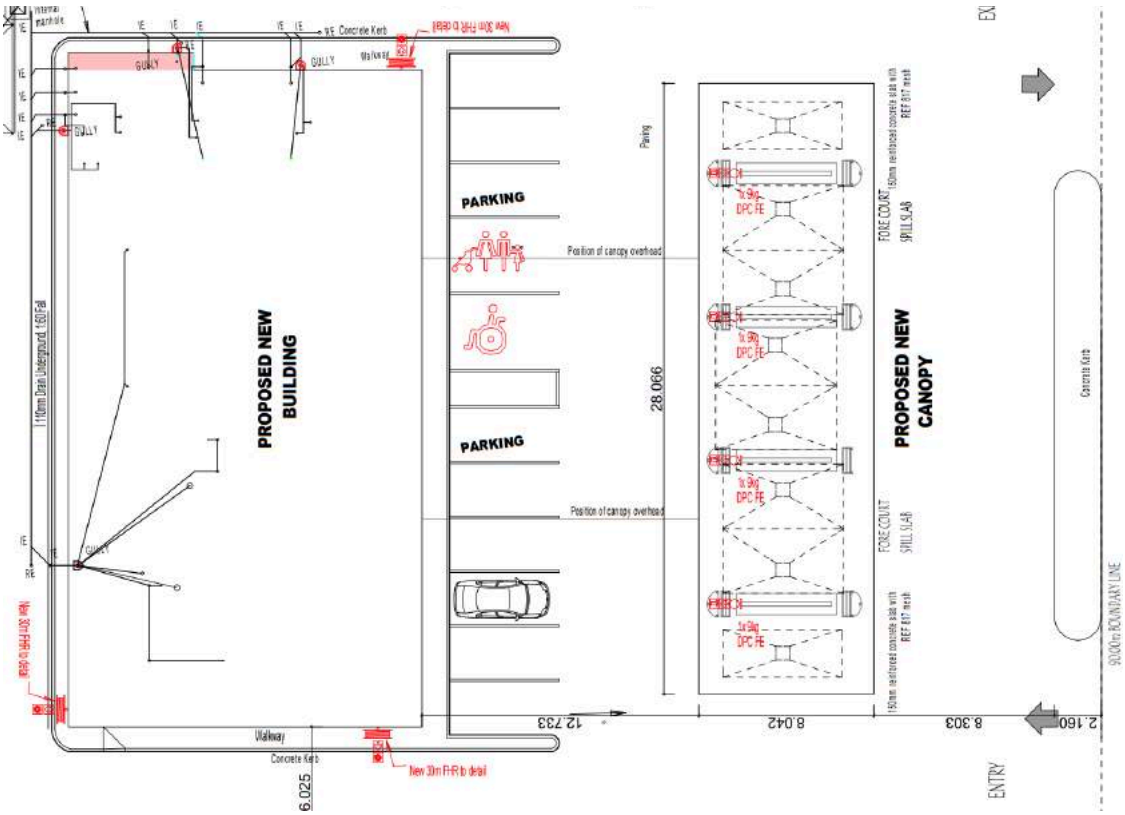

Figure 2: Proposed layout plan for development (*Source: Abisai Konstantinus, 2021)*

2.2 Site Location

Erf 7214, Kuisebmund is located on Khomas Hochland Street Extension 5 in Kuisebmund. The site measures 2629² and has the following GPS coordinates: 22°55'30.5"S 14°32'25.7"E. The erf is owned by Dr. Abisai Konstantinus, who is the sole director of Nambaza Investments cc, the proponent for the project. Figure 1 shows the site location in relation to the country and figure 2 shows the site in relation to potential competitors and target markets. We can see that, the site is ideally located on the periphery of Kuisebmund along the new entrance highway from Swakopmund. We can also see the site is located far from the main shopping centers and fuel stations (potential competitors) which makes the site viable.

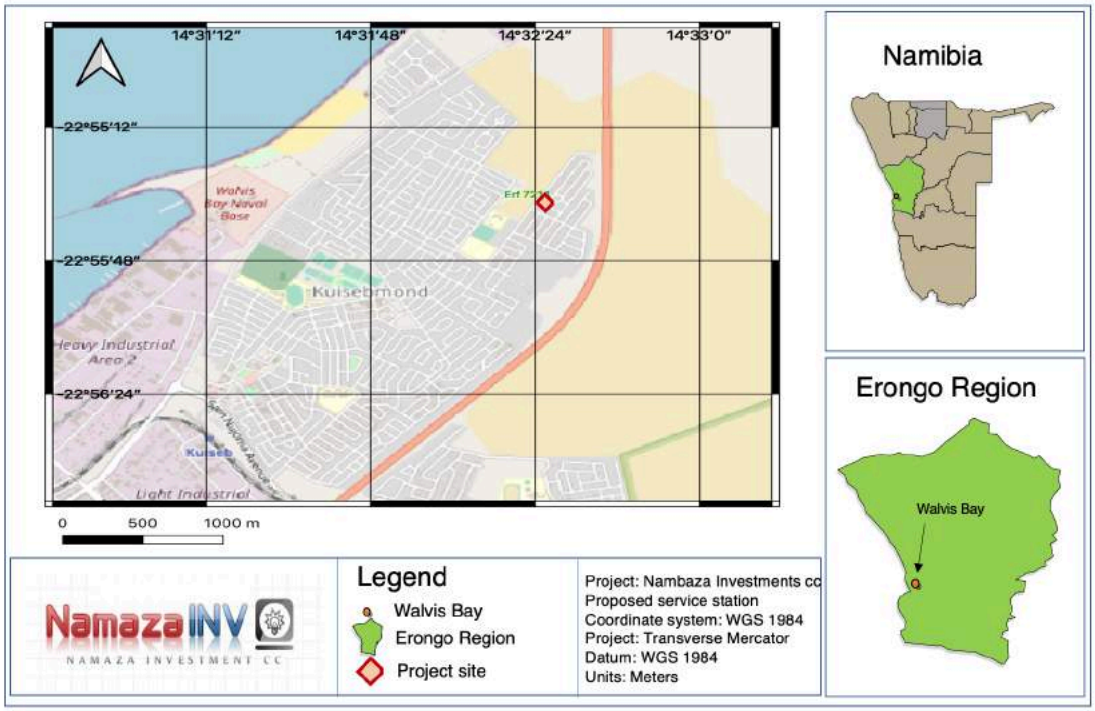

Figure 3: Site location with co-ordinated (*Source: Abisai Konstantinus, 2021)*

2.3 Land Use

The technical details of the site are as follow:

- ERF no: 7214, Ext 5, Kuisebmund-Walvis Bay
- Site Area: 2629.6m²
- Site Configuration: North- South (Long axis)
- Topography: Generally flat
- Zoning type: General Business
- Permissible Coverage: 80%
- Bulk factor: 1.0
- Maximum permissible Density: 1shop/ 100m²
- Maximum Permissible height: 8m
- Parking Arrangement: 1 parking/33.333 sqm

Figure 4 & 5: Site location ERF 7214 [not to scale] (*Source: Walvis Bay Municipality, 2021)*

3. RELEVANT LEGISLATION AND PROCESSES

3.1 Applicable Legislation and Policies

The EIA is guided by the Namibian Environmental Impact Assessment Policy of 1994 and the Namibian Environmental Management Act of 2007, which stipulates activities that may have a significant impact on the environment. Furthermore, strong sustainable development is ensured by the review of policies and legislation which is employed as sound guiding tools for the entire EIA process. In line with this, the Town Planning Ordinances 18 of 1954 makes provision for the preparation and carrying out of planning schemes aimed at ensuring harmonious development.

Table 1 below provides a review of the relevant Namibian legislation that has a bearing on the project development. The review is laid out to provide the proponent and Council of the requirements and expectation before and during the construction, operational and decommissioning phases of the project.

Table 1: Applicable legislation, Policies and/or Guidelines

Act/Regulation	Brief Description	Applicability to Project
Namibian Constitution First Amendment Act 34 of 1998	The State shall actively promote maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians" (Article 95(l)).	Ecological sustainability should inform and guide this EA and the proposed development
Environmental Management Act (7 of 2007)	Section 3 and 55 principles of environmental management	The principles should form the basis of key decisions in the project.
Environmental Impact Assessment Regulations (2012)	Provides guidelines for the EIA process.	The EIA consultants should adhere to the guidelines provided in these regulations.
Environmental Assessment Policy of Namibia (1995)	Seek to ensure that the environmental consequences of development projects and policies are considered, understood and incorporated into the planning process and that the term ENVIRONMENTAL is interpreted inclusive of biophysical, social economic, cultural, historical and political components.	All listed activities should be subjected to the EA procedures. The project requires authorisation from MET: DEA, which will be based on the findings of the detailed EIA study. This is EIA was done in accordance with the policy guidelines.
Groundwater Protection Regulations	Regulations provides for the protection of the groundwater resource in a formally documented and legislated EIA (scoping process).	Swakopmund Town Council should be instituted to ensure decisions are taken regarding the potential impacts on the natural environment.
The Public Health Act 36 of 1919 and subsequent amendments	This Act prohibits the existence of a nuisance i.e. noise and odors.	The proponent should be familiar with the provisions of this act and control nuisances accordingly.

Walvis Bay Planning Scheme (TPS).	Statutory document providing land use regulations, control and development.	Land uses and developments should be in accordance with the Walvis Bay TPS.
Hazardous Substances Ordinance (14 of 1974) as amended by the Atomic Energy Radiation Protection Act (2005)	The ordinance controls substances with potential to cause injury or ill-health or death of human beings because of their toxic, corrosive, irritant, strongly sensitizing or flammable nature. There are many products that are covered under this Act including petroleum fuels and lubricants.	Care should be taken throughout the product lifecycle: from receiving, storage, product use and disposal. In cases were special storage facilities are required the Proponent should provide as such.
Atmospheric Pollution Prevention Ordinance (Ordinance 11 of 1976)	This ordinance provides for the prevention of air pollution.	Measures are required to ensure that dust emanating from construction activities is kept at an acceptable levels and operations.
Soil Conservation Act (No. 76 of 1969)	The act provides for the prevention and combating of soil erosion, conservation, improvement and manner of use of soil and vegetation and protection of water resources.	The EAP should adhere to the guidelines provided in these regulations.
Draft Pollution Control and Waste Management Bill	This bill aims to prevent and regulate the discharge of pollutants to air, water, and land. It further aims to promote the establishment of a system of waste management and enable Namibia to meet its international obligations.	Waste management to be guided by 3R principle: Reduce, Reuse and Recycle. Only unrecyclable and unusable materials must be disposed of at a designated disposal site.
Labour Act 11 of 2007, No. 156 Labour Act, 1992 and associate Regulations relating to the health and safety Of Employees at work	The Act governs employer to employee relationship including issues pertaining to occupational health and safety, remuneration, provision of appropriate protective clothing, grant of leave etc.	To be compiled by the project proponent during the planning phase and implemented by the Contractor during construction, operation and decommissioning.
Petroleum Products and Energy Act 13 of 1990 and subsequent amendments	It gives control over the storage of refined petroleum products, and to provide for matters incidental thereto.	The handling and discharge of oil products must be conducted in line with this act.
Petroleum Regulations (1991 and 2000)	The regulations serve to regulate the purchase, sale, supply, acquisition, usage, possession, disposal, storage, transportation, recovery and refinement of used mineral oil are published under the Petroleum Products and Energy Act 13 of 1990	Environmental standards and avoidance of environmental harm caused by the keeping, handling, conveying, using and disposing of petroleum products must be done in line with these.
Road Traffic and Transport Act 22 of 1999; (as amended)	Obtain permission from Roads Authority to construct access route to site.	To be applied for from Roads Authority by the Contactor prior to commencement of Construction activities.

The Road Traffic and Transport Regulations, 2001	PART 4 of the regulations govern the transportation of dangerous goods.	The proponent must be guided by the provisions during the transport of any dangerous goods.
Walvis Bay Planning Scheme (TPS).	Statutory document provides land use regulations, control and development.	Land uses and developments should be in accordance with the Walvis Bay TPS.
Integrated Urban Spatial Development Framework (IUSDF) of Swakopmund.	Provides future land use planning within the Swakopmund district.	The IUSDF was utilised to evaluate whether the proposed activity is in accordance with the future planning of Walvis Bay.
Walvis Bay Strategic Plan 2013 to 2017.	Five-year thematic plan that serves as a roadmap for the effective and efficient management to harness local growth and development.	The Strategic Plan was utilised to evaluate whether the proposed activity meets the Council's infrastructure, local economic development, socio-economic and environmental objectives.
Walvis Bay Business Policy	Provides guidelines to commercial developments in Swakopmund.	Commercial developments should be properly allocated and should not reduce the existing housing stock.
Walvis Bay Climate Strategic Action Plan.	Provides action plans on how Town Planning can help mitigate climate change.	To promote higher intensity developments, reduce urban sprawl and land competition. Encourage EIA studies with regards to rezoning.
Sustainable Urban Energy Planning: A handbook for cities and towns in developing countries.	Provides a comprehensive list and case studies to implement energy saving measures.	Implementing energy-efficiency and carbon mitigation measures. Conserve natural resources with city planning.
International Organisation for Standardisation: Standards for Laundry and Dry Cleaning Machinery. (ISO/TC72/SC5).	Laundry and Dry-Cleaning Machinery Standards address health and safety precautions associated with laundry and dry-cleaning machines and activities of all sizes used in industrial as well as commercial settings.	Identifying the most significant hazards associated with laundry and dry-cleaning machinery. Providing guidance for safety-oriented design through the specification of proper usage and maintenance practices. Proper application helps in minimizing health and safety risks.

3.2 Key Industry Standard Requirements

The EIA process was also guided by the environmental best practices, engineering design controls and standards as Table 2 provides. These are required by Oil Companies and the Ministry of Mines and Energy (MME) in order to mitigate the risk that service stations pose.

Table 2: Applicable Industry Standard Requirements

Industry Standard	Brief Description
SANS 100131 (1977)	The storage and Handling of Liquid Fuel. Part 1: Small Consumer Installations.
SANS 100131 (1979)	The storage and Handling of Liquid Fuel. Part 11: Larger Consumer Installations
SANS 10400 (1990)	The application of the National Building Regulations
SANS 10089-1 (1999)	The petroleum industry Part 1: Storage and distribution of petroleum products in above-ground bulk installations
SABS 0131 (1999)	The petroleum industry Part 3: The installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations
SANS 10089-2 (2002)	The petroleum industry Part 2: Electrical installations in the distribution and marketing sector
SANS 1186-1 (2003)	Symbolic safety signs Part 1: Standard Signs and General Requirements
SANS 10142-1 (2003)	The wiring of the premises Part 1: Low-voltage installations
SANS 1535 (2003)	Glass-reinforced polyester-coated steel tanks for the underground storage of hydrocarbons and oxygenated solvents and intended for burial horizontally.
SANS 10131 2004	Above-ground storage tanks for petroleum products
SANS 10089-3 (2010)	The petroleum industry Part 3: The installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations.
SANS 1020 (2013):	Power-operated dispensing devices for flammable liquid fuels

3.3 Methodology and EIA Process

The EIA was conducted in chronological steps as summerised in Table 3. The baseline information about the site and its surroundings was first obtained from existing secondary information as well as from a reconnaissance site visit. Subsequently, as part of the scoping process to determine potential environmental impacts, interested and affected parties (IAPs) were consulted for comments and opinions and these are put forward in this report. This process allowed assessment of the environmental impacts and subsequently the identification of the mitigation measures. These Mitigation measures were developed based on practical measures supported by research and scientific evidence. In addition, an environmental management plan (EMP) was prepared to give a guideline base to the project proponent on how the identified impacts can be mitigated and managed.

Table 3: The EIA Process

Phase	Brief Description
1. Clarifying terms of reference and leveling of expectations	Leveling of expectations – an opening meeting was held between the consultancy team and the Proponent. The purpose of the meeting was to clarify the methodology, communication process between the Consultants and the Proponent, time frame and expected outcomes of the EIA study.
2. Literature review	Various related documents were reviewed to gather information on the potential impacts, the alternatives, how to mitigate the impacts, decommissioning and rehabilitation plan. The literature included maps, publications, and reports on topography, climate, land use, and socio-economic setup of the Village where the project site is located. The literature review helped in undertaking components and areas that would deserve attention during field assessment. The literature review which was mainly based on the desk study method included the following.
3. Information search from internet, journals, books and stakeholders	The application of the National Building Regulations.
4. Fieldwork for making of detailed studies of the baseline situation.	This included bio-physical environment and socio-economic conditions.
5. Analysis of the potential environmental impacts.	This included impact prediction and significance assessment. The three major environmental compartments which are land, air and water were chosen to be observed and discussed in details. These compartments had been chosen because they are the main receiving environmental compartments that should be considered before implementing the project.
6. Public participation	The petroleum industry Part 2: Electrical installations in the distribution and marketing sector. A wide range of key stakeholders were invited to participate and express their views through various media communication. The consultations were done mainly to get a view of the affected parties as well as how they think the project should be carried out for minimum impacts on health, environment and the well-being of the people. Issues which were highlighted by stakeholders were incorporated into the EIA process, the project design and the proponents have committed the same during project implementation.
7. Field surveys	Field surveys were carried out to verify some facts obtained from the literature review. A more informed assessment was however the main objective of the field studies. This was done to confirm the condition of the area in terms of climate, soils, land use, topography and socio-economic set up of the area. It also involved surveys to identify the different environmental components and their state to determine the most likely impacts.
8. Preparation of an environmental management plan for the project and finally and Compilation of the EIA report.	The completion of the various tasks assigned to the team members during the EIA study gave rise to separate individual reports. The reports were collated to come up with a complete environmental impact assessment report.

3.4 Phases of the Project

The EIA study will specifically look at the activities in the following phases (limited to the immediate environment on and around the location of the project site): Planning and Design, Construction, Operational, and Decommissioning phases of the project.

3.4.1 Planning and Design Phase

This phase entails the planning, designing and documenting the project. It offers an ideal opportunity to consider and incorporate proactive environmental management measures with the goal of attaining sustainable development. While there is still the chance of accidental impacts taking place; however, through the incorporation of contingency plans (e.g. as proposed in the EMP) during the planning phase, the necessary corrective action can be taken to further limit potential impacts.

3.4.2 Construction phase

This phase entails the actual development of the project infrastructure. The activities during this phase include:

- Excavation of trenches and pits for services and infrastructure
- Installation of engineering services, underground storage tanks, oil separator, spill control infrastructure, submersibles, generator and dispensing pumps
- Electrical reticulation above and below ground
- Construction of buildings, paving, pump islands, storm water drainage, site access streets and related infrastructure.
- Transportation of equipment, machines and building material to site
- Site clean-up and housekeeping.

The bulk of the impacts during this phase will have immediate effects (e.g. noise, dust and water pollution). If the site is monitored on a continual basis during the construction phase, it is possible to identify these impacts as they occur. These impacts can then be mitigated through the contingency plans identified in the planning phase, together with a commitment to sound environmental management.

3.4.3 Operational phase

The operational phase entails the operation of the project for the intended purpose. The activities during this phase include:

- Decanting fuel to the underground storage tanks from street tankers
- Fuel dispensing into vehicles and approved containers
- Operations of the kitchen and onsite shops
- Site clean-up and housekeeping

Similar to the construction phase, the bulk of impacts during this phase will be the additional traffic generated by vehicles have (e.g. noise, dust and light pollution). If the site is monitored on a continual basis during the construction phase, it is possible to identify these impacts as they occur. These impacts can then be mitigated through the contingency plans identified in the planning phase, together with a commitment to sound environmental management.

3.4.4 Decommissioning phase

- Demolition and removal of physical structure not to be reused for further land use.
- Site rehabilitation and clean-up.

4 SITE-BASELINE ASSESSMENT

4.1 Project Site and Surrounding Land Use

The project site is located on a new extension of Kuisebmund which predominantly includes NHE mass housing developments, government housing and schools. The site is also located along a busy roadway – the new dual carriageway into Kuisebmund from the B1 highway to Swakopmund. The site is surrounded by a vacant erf of similar size to the south and to the west, a roadway to the north, and a roadway to the east. The surrounding areas are general residential however, the erf south of the site is zoned for business, and there are also 2 other business zoning areas about 100 meters to the north-east of the site.

Figure 6: Satellite image of site (source: Google earth)

North-west of the site is the Tutaleni informal settlement, which is home to about 1000 families living on 1200 plots measuring 300 sq.m each. The project is an initiative of the Walvis Bay municipality in its efforts to reduce the negative effects of a high number of shacks in the coastal town. A cement floor, toilet and kitchen sink are readily found on the plot, occupants are then free to complete their house structures with certain permitted building material. Residents of the settlement have access to clean water, power, waste removal and other basic municipal services.

Figure 7: Street in Tutaleni (source: Konstantinus A, 2021)

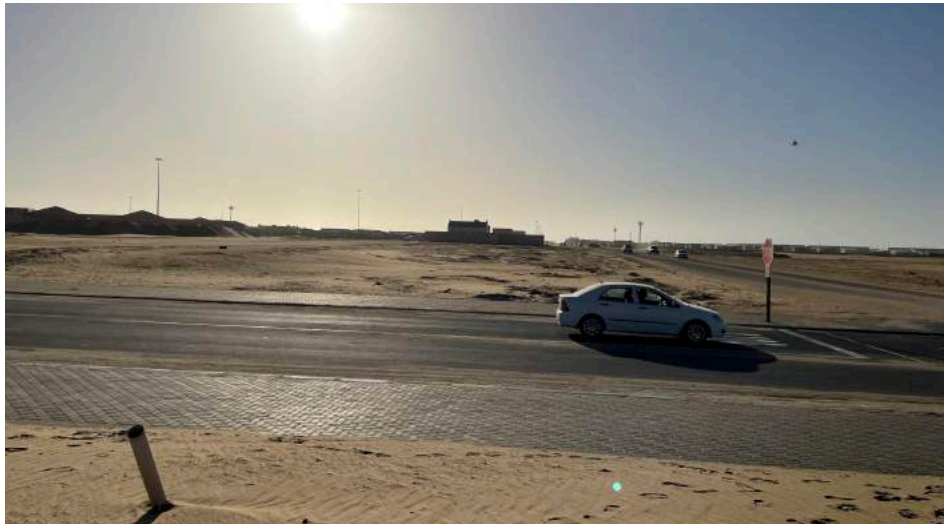

Figure 8: North view

Figure 9: East view

Figure 10: South view

Figure 11: West view

4.2 Geographical and Biophysical Information

This section describes the components of the existing environment that could be affected by the proposed action.

4.2.1 Topography

Walvis Bay falls within the coastal plain of the Namib dessert (Mondelsohn et al, 2003). The Namib is partly rocky and partly dunes. The landscape where Walvis Bay falls is classified as an area of dissection and cutback due to soil erosion (ibid). The Kuiseb river forms the northern boundary of the Namib Sand Sea which lies south of the river, truncating the longitudinal dunes which encroach from the south. To the north of Walvis Bay, the Namib forms an extensive gravel deflation surface. Huge volumes of sand are available and rates of aeolian transport have been estimated to be approximately 150 m3/m/yr northwards. Figure 6 is a Landsat image of the site (erf 7214) which shows that it is relatively flat with dune sand textured surface.

4.2.2 Soil and Geology

The onshore coastal succession in Erongo Region consists of old crystalline rocks that form the basement to the Permo-Triassic Karoo Sequence and the young deposits of the Namib Desert (MME, 2011). The Walvis Bay rock geology is dominated by metamorphic rocks, including quartzite and marble bands; with granitic intrusions (HYMNAM Project, 2004). In terms of soil types, the soils of Walvis Bay belong to the Gypsisol and Kalahari group (arenosols), which means the sand is infertile and can thus be blown away with ease. The Walvis Bay area is further characterized by deep unconsolidated sediments of tertiary age. The deposits have been formed by a combination of fluvial, esturian, coastal and Aeolian processes (sand sea of the Namib Desert). The soils are poor in humus and plant nutrients, and thus vegetation is none existing on the site.

4.2.3 Climate and Meteorology

Walvis Bay is considered to have a desert climate. The two source of moisture to sustain life are rain and fog. The rainfall in Walvis Bay ranges between 10mm and 40mm per annum. When it rains, it usually occurs in April, when the first cold fronts of the winter begin. The difference in precipitation between the driest month and the wettest month is 3mm. Fog is often caused by the cold sea brought about by the upwelling motion of the Benguela current – and the hot dessert air that precipitate to form fog.

In terms of temperature, February is the hottest with an average of 19 degrees Celsius. The average sunshine per season is 2150 hours. The benefit of sunshine hours is that the use of alternative energy supply such as solar energy can be applied. With these amounts of sunshine hours, the project could install solar panels and effectively supplement the expensive energy that it sources from Erongo Red thereby reducing its energy bill and passing the benefits on to its customers. Berg Wind or East Wind – is a strong and gusty windstorm phenomena experienced at the coastal towns of Namibia when hot, dry squally wind blowing off the interior plateau roughly parallel to the coast.

At times visibility could be considerably reduced during East Wind. Berg winds blow mainly in winter when a strong anticyclone occupies the interior plateau, producing outflow across the coastal towns of Namibia. They can suddenly set in during the morning bringing a temperature rise of 15-20C, giving maxima of 22 C – 35 C and cause humidity to fall from nearly 100% to 30% or less.

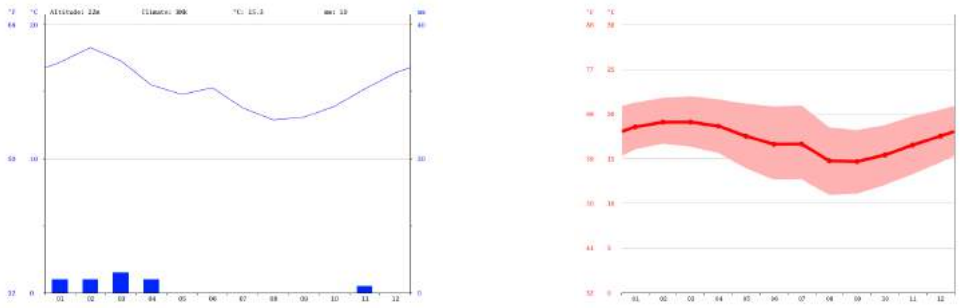

Figure 12: Walvis Bay precipitation and temperature by month in 2020 (www.climate-data.org)

4.2.4 Hydrology (Groundwater) and Geological stability of the site

Shallow groundwater levels are common in the Walvis Bay area. The Walvis Bay basin is mainly defined by the surface water catchments of the Kuiseb river and the Atlantic ocean. The ephemeral Kuiseb river originate in the central highlands of Namibia and flow in a western direction towards the coast where they discharge into the Atlantic Ocean. This however happens on selected seasons. The only permanent surface water around the site is the Atlantic Ocean which lies 1 500m west of the site. The site also sits 6m above sea level, and this makes the natural water table quite shallow. However, the risk of seepage of petroleum products effectively reduced by the construction of a double walled tanks and set on solid concrete floor. These areas will be impervious and thus prevent the potential seepage of fuel into the soil.

According to the geological sheets, there were also no definite faults identified in close proximity of the project site. Also, there are no abstraction boreholes on or within a radius of 5km. The project site is however regarded by the geo-hydrologists as potentially sensitive for development from a geo-hydrological and geological point of view. Major geotechnical constraints include:

- Low water holding capacity and quick drainage;
- Perched water tables;
- High erosion potential; and
- Localised disturbed areas due to fill.

Furthermore, major geo-hydrological constraints include:

- The upper sandy and gravelly horizons are highly permeable, and pollutants will rapidly percolate through such horizons;
- Perched water conditions are expected in some areas; and
- The ground water table is expected to be fairly shallow;
- Bedrock is estimated to occur between 40 – 60 meters below ground level.

Therefore, mitigation measures to address the soil and hydrological conditions and potential impacts must be taken into consideration during development and operational phases. Various methods and standards are available to the development team as sited in Chapter 2. The following minimum precautionary measures must be implemented:

- Sealing of the forecourt areas where fuel products are handled to prevent infiltration of petroleum products into the soil/rocks underlying the site;
- Storm water draining form the surfaces areas should be collected in a sealed sump to be treated or removed;
- Preventative measures should be installed to prevent the storm water or other liquids draining into the soil;

- Subsurface fuel tanks must be placed in concrete encasements with a sump system to prevent spilled fuel from entering the bedrock or aquifer;
- Fuel lines and dispensers should be rendered leak-proof and are recommended to be place in encasements.

4.2.5 Atmosphere and air quality

The proposed site is located at an open area free from atmospheric pollution. Visual observation showed the atmosphere is clear. The streets, east, north and west of the site are all tarred so dust can hardly be observed when cars speed. The townships in the surroundings are electrified thus cooking is generally done with electricity. There are however a small population of squatters and vendors and some use firewood and waste wood for cooking.

4.2.6 Vegetation

The project site falls within the Southern Namib Dune Grassland biome, which characterized by Southern Vegetation types. The dominant vegetations is grasslands and dwarf shrublands that grow on dune sand. The project site does not have any vegetation. It is barren as figures 7-11 shows.

4.2.7 Wild life and animal habitat

The Walvis Bay area is known to be home to a few animal families including: 41 reptiles, 3 amphibians, 170 bird species and 15 mammal types. The project site environment has undergone massive clearing and compacting activities that have removed habitats for wildlife. This has altered the required natural environment for wildlife and animal habitats. The project site is furthermore located in Kuisebmund where wildlife is not common.

4.2.8 Utilities and Aesthetics

The site is accessible from both Khomas Hochland and Kleaophas Karuseb streets. The site is fully serviced with connections for telecommunications, electricity and sewerafe all available. The project plan is to develop aesthetic structures around the environment. Site entry and exit will be as follows:

- From Khomas Hochland street: Entry from the North and turn RIGHT
- From From Kleaophas Karuseb street: Entry from the East and turn Left
- Exit to both streets in opposite direction.

Figure13: Project Site ‘Entry’ and ‘Exit’ (source: google maps)

4.2.9 Heritage, Cultural and Archaeological Aspects

There are no churches, mosques or related buildings in close proximity to the site. No known archaeological resources have been noted in the vicinity. No other structures, sites or spheres of heritage of cultural significance was determined to be in close proximity to the site too.

4.3 Socio-Economic Aspects

The location of the project site is on the outskirts of Kuisebmund. Although, there is currently no permanent or temporary economic activity taking place on the site, the site is located along a very busy intersection along Khomas Hochland street. The intersection is full of vehicular and pedestrian traffic. Month ends are usually crowded with pedestrians, cars and entertainment activities. The observable noise levels are high during the day and lower at night due to the amount of traffic utilising the main roads. These noise levels are not a nuisance to residents given that most people are at work during the day when noise levels are high and at home in the evening when noise levels are low. During the night most shops and offices are closed except for the bars which close in late nigt hourse.

The development of a service station is a viable option because, the site is located at a very busy intersection which enters Walvis Bay. The character of the area is also changing due to continued expansion of business and social activities caused by the increase in number of business development, schools, clinics and property developments. The proposed activity, is within an area into which the area is expected to expand which is supported by the IUSDF.

4.3.1 Population growth and Impact on Socio-Economic Realities

The number of people to be employed is generally small, and it is also expected that nobody will be displaced as a result of the project. On the contrary, it is expected the project will contribute positively towards the availability of services and economic development of Kuisebmund and Walvis Bay, through employment creation.

According to unofficial statistics, Kuisebmund is home to 62 percent of Walvis Bay's 100 000 population (unofficial statistic). In the communities close to the project site, salaries and wages make up the majority of income, with addition and positive inter-flow of income from small spaza shops and vendoring.

The city of Walvis Bay is generally a major magnet for in-country migrants, who come primarily from rural areas looking for work. Walvis Bay is properly thought of as a city of migrants: in 2002, roughly 1/3 of the population reported having arrived within the last ten years, and fully 70% of current inhabitants were born elsewhere (Billawer and Ekobo 2002). The population is predominantly male, and the demographic pyramid biased greatly toward working age: in 2001 more than 2/3 of the population were between the ages of 20 and 59 (ibid.), a marked contrast with Namibia as a whole (and many other developing countries) where youth predominate. In the 2001 census, men made up 58% of Walvis Bay's population; in other words, a population gender ratio (usually expressed as number of males per hundred females) of 116:100, compared with 98:100 for Namibia's population as a whole.

Although unemployment in Walvis Bay was estimated in January 2010 to be roughly 30%, this is still well below the national average of 51.2%. Unemployment in Walvis Bay has risen due to recent economic conditions of the country brought about by the COVID-19 pandemic. The high unemployment rate gives birth to other sociatal problems such as crime and gender based violence. For instance studies have

shown that a one percent increase in the unemployment rate will increase the violent crime rate by 14.3 per 100,000 inhabitants. Similarly, studies have shown a positive correlation between growth in unemployment and gender based violence, which in turn lead to other social ills like prosititution, teenage preganancy and prevalence of HIV/AIDS.

4.3.2 Need and Desirability

The development of a service station supports the objectives of the Council's Strategic Plan (Theme C: Local Economic Development), that it will encourage and facilitate investment, economic development and economic growth and job creation.

The new provision of business land attracts more investors; with this comes new business ideas that will thrive especially in an environment where it is lacking. More investors mean more revenue will be generated by Council to improve services and create more land for housing. As more investors will be attracted to Walvis Bay, employment opportunities will also be created. This will increase the number of people paying taxes and in turn generate more money for the Government. Council will also benefit from this because when more people are employed more people will be able to afford items sold in the shops and pay rates and taxes. Consequently, the local economy will be stimulated.

The development of Ondonga Service Station will lead to employment creation during the construction phase and during future operation phase where the business will render a service at a cost within the economy, employ staff and pay rates and taxes. The development will also increase the costs of rates and taxes which means Council will be generating more money from rates and taxes and service charges than they previously did.

The development of the site will furthermore add to the confidence of residents, existing and potential entrepreneurs and visitors to Walvis Bay. This leads to the conclusion that Walvis Bay is a vibrant, positive and exciting place (in the CBD or in the township) which will add to people's well-being and attitude.

The location is particularly ideal for the proposed development as it is within the centrality of the 4 income areas. The best place for the proposed development is on the center of the the four low income areas because most people gravitate towards the CBD for these developments. Also, the proposed development will only thrive well if it is located in an area where it is likely to be found by people, rather than being located in the most unlikely areas such as the industrial areas.

There are also other mixed land uses around the site that will benefit from being located close the proposed development. Adding a service station, supermarket and additional service offerings such as doctor's practies to the area will also increase the quality of lives of the people as they have a variety of places to go to and are all within close proximity to each other.

Seeing the development of the site will be at an appropriate two- single-storey scale, it will not create a visual intrusion. Nor will it result in any loss of privacy to adjacent properties either in the short term or in the long term. The surrounding area has a mixed–land use character including low and high density residential, institutional and general business activities. These uses are all complementary to the proposed use of the site for the development of a service station.

5 IMPACT IDENTIFICATION AND ASSESSMENT

A key part of the EIA Scoping Process is the preliminary identification and consideration of issues and concerns that may impact (positively and/or negatively) the biophysical and socio-economic environments at different stages of the development. Issues identified as potentially significant during the Scoping Phase form the basis on which further studies were conducted. This chapter provides a description of these impacts.

5.1 Construction Phase

During the construction phase it is expected that, the main sources of impact generally result from the use of heavy-duty vehicles during construction. There are predicted impacts, however these cannot be quantified, primarily due to the lack of detailed information related to scheduling and positioning of construction related activities, which will only come out in the feasibility study. Instead, in this analysis, a qualitative description of the impacts is done which involves the identification of possible sources of emissions and the provision of details related to their impacts. The primary HSES impacts from the construction of service stations include air and noise quality impacts.

5.1.1 Air Quality impacts

The construction of a service station generally consists of a series of different operations, each which has a different duration and potential to impact air quality. The major impactor of air quality during the construction phase is dust emission. Dust emission will vary from day to day depending on the phase of construction, the level of activity, and the prevailing meteorological conditions. Dust will be generated significantly due to the dry conditions and the sandy texture of the soils in the project area. The following possible sources of dust generation have been identified as activities, which could potentially generate dust during construction operations at the site:

- Transportation of materials
- Scraping;
- Debris handling;
- Land clearing for infrastructure

To avoid the generation of unnecessary dust, material drop height should be reduced and material storage piles should be protected from wind erosion. This can take the form of windbreaks, water sprays or vegetation of piles. All stockpiles should be damped down, especially during dry weather. It should be noted that emissions generated by wind are also dependent on the frequency of disturbance of the erodible surface. Dust created during the transportation can be limited by watering the road sections that are being used and by either wetting the material being transported or covering the back of the trucks, to limit the windblown dust from the load.

5.1.2 Noise Quality impacts

The major part of service station construction usually takes place with heavy duty earth moving machinery such as bulldozers and heavy industrial activity such as welding etc. Excessive noise is generated during this process, which often can lead to disgruntled community members. Noise can also be generated during the transportation of the construction material, usually by truck, to and from the site. Noise impacts from the construction phase can be mitigated by restricting heavy duty work to hours of daylight.

5.2 Operational Phase

5.2.1 Soil and Groundwater Pollution

Groundwater and soil pollution from hydrocarbon products are risks associated with the storage and handling of petroleum products (hydrocarbons). When a release of hydrocarbon products takes place into the soil, infiltrates the soil in the form of Light Non-Aqueous Phase Liquids (LNAPL). When this happens LNAPL start to migrate vertically downwards. The shallow ground zone between the land surface and the top of the ground water table where fuel tanks are installed is called the vadose zone.

If LNAPL are released into the vadose zone they could flow through the central portion of the soil pores until residual saturation is reached. If this happens, a three-phase system consisting of water, LNAPL, and air is formed. Infiltrating water dissolves the components within the LNAPL and transports them to the water table. These dissolved contaminants form a contaminated plume radiating from the area of the residual product. As these vapours diffuse into adjoining soil areas, they may partition back into the water phase and transfer contamination over wider areas. If the soil surface is relatively impermeable, vapours will not diffuse across the surface boundary and concentrations of contaminants in the soil atmosphere may build up to equilibrium conditions. Dissolved components of the LNAPL may also precede the less soluble components and may change the wetting properties of the water, causing a reduction in the residual water content and a decrease in the height of the capillary fringe.

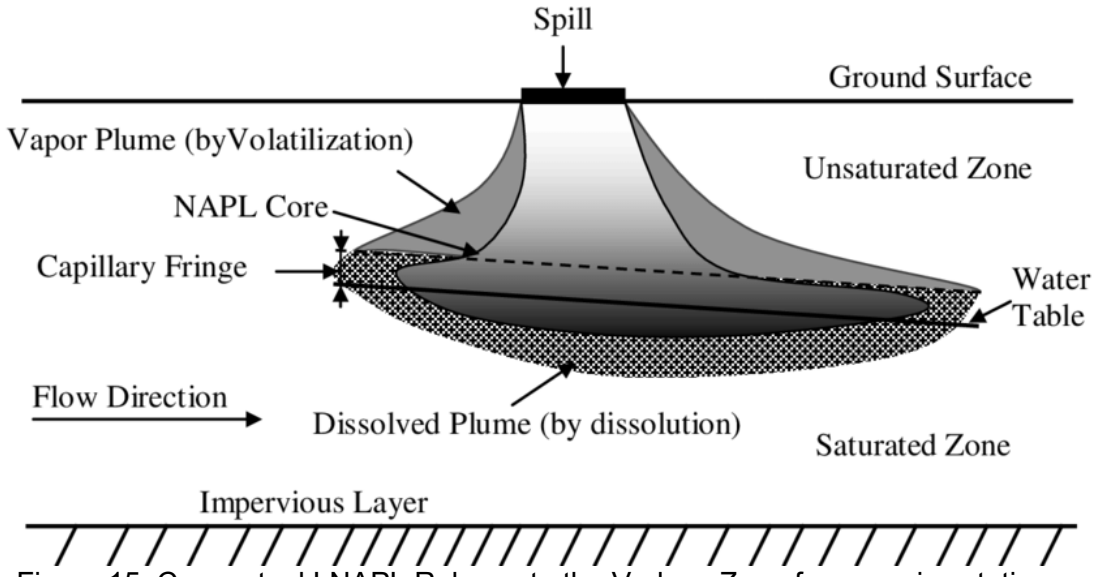

Figure 15. Conceptual LNAPL Release to the Vadose Zone from service stations

To mitigate the potential impact of the release of LNAPL into the atmosphere, the ground level surfaces of the project site must be covered with an impermeable material. This will reduce the diffusion of vapours into the atmosphere. Where the water table is high, cathodic protection should be used for single steel walled tanks. Otherwise, secondary contained tanks, i.e., a double-walled steel tank, double walled fiberglass or jacketed steel tanks (with high density polythene or fiberglass outer wall) should be used. Suitable sand shall be used for both bedding and backfilling of steel tanks. Installed tank and pipe work shall be hydrostatically tested.

5.2.2 Health, Safety, Environmental and Socio-Economic (HSES) Impacts

The operation of service station will involve the commercial transactions of hydrocarbon fuels (petrol, diesel, liquid, petroleum, gas or paraffin). The Health, Safety, Environment and Socio-economic impacts assessment must take into

consideration the relationship between the operational activities and the social life due to these transactions. This relationship is interlinked dependence of social and economic activities. As Table 4 below shows below, we have classified the potential impacts into health impacts, safety impacts, environmental impacts, and socio-economic impacts.

Table 4: HSES impacts from Operating service stations

HSES Impact	Brief description
Health Impact	
Noise Impacts	Some noise will exist due to heavy and light motor vehicles accessing the site for delivering and collecting fuel during operations.
Air Quality	Hydrocarbon vapours containing volatile organic compounds, which harm human health and contribute to ozone pollution. Running motor vehicles produce carbon monoxide and particulate matter.
Manual handling	Hydrocarbons are carcinogenic and dermal contact and inhalation of fumes should be prevented.
Safety Impacts	
Slips, trips and falls	Fuel, oil spills and water on the forecourt can put workers and others at risk of slip, trip or fall injuries.
Fire and explosion	Unleaded petrol is extremely flammable and if fuel is not handled according to Material Safety Data Sheet instructions and SANS requirements, a fire risk exist during the operational phase.
Compressed Air System	Compressed air is extremely forceful. It can dislodge particles and these are a danger since they can enter your eyes or abrade the skin.
Violence to staff	There are many causes of violent behaviour with customers. Some may be easy to identify, such as frustration, anger, misunderstanding, stress, communication problems, conflict with authority and theft/robbery.
Environmental Impacts	
Solid and Liquid Waste Generation	Integral containers of adequate design and capacity should be provided for solid waste, such as discarded cans, bottles, etc. Proper facilities for storage and disposal of used and waste oil and gas must also be provided. Waste water from the washing of motor vehicles and sewage must also be disposed of satisfactorily.
Groundwater, Surface Water and Soil Contamination	Operations entail the storage and handling of various hydrocarbons which present a contamination risk. Contamination may either result from failing storage facilities, spills and leaks associated with fuel handling. Such material may contaminate surface water, soil and groundwater. Modern retail facilities are well designed to reduce leakages and spillages from contaminating soil and water.
Pollution from chemicals and materials used in shops for retail and cleaning.	Operations entail the use, storage and handling of various chemicals, which present a contamination risk. Contamination may either result from failing storage facilities, spills and leaks associated with these chemicals. Such material may contaminate surface water and soil and may be harmful when they come in contact or inhaled with humans.
Traffic Impacts	Some traffic impacts can be experienced in the vicinity of the facility especially where vehicles gains access from and to the facility.
Socio-economic	
Economic benefits	Operations of the facility provide employment opportunities to residents. The operational phase creates permanent employment opportunities and some training and skills development takes place.
Increased land value and real estate	The addition of the service station will potentially improve the adjacent land value and bring much needed development to the area.

5.3 Decommissioning Phase

The decommissioning phase is associated with activities related to the demolition of infrastructure and the rehabilitation of disturbed areas. The total rehabilitation will ensure that the total area will be a free draining covered with topsoil and grassed.

The following activities are associated with the decommissioning phase:

- Existing buildings and structures demolished, rubble removed, and the area levelled;
- Remaining exposed excavated areas filled and levelled using overburden recovered from stockpiles;
- Stockpiles and tailings impoundments to be smoothed and contoured;
- Topsoil replaced using topsoil recovered from stockpiles; and
- Land and permanent waste piles prepared for revegetation.

Possible sources of fugitive dust emission during the closure and post-closure phase include the following:

- Movements of stockpiles by bull dozers;
- Grading of the site;
- Transport and disposal of overburden for filling;
- Infrastructure demolition;
- Infrastructure rubble piles;
- Transport and disposal of infrastructure rubble;
- Transport and reuse of topsoil; and

Exposed soil is often prone to erosion by water. The erodibility of soil depends on the amount of rainfall and its intensity, soil type and structure, slope of the terrain and the amount of vegetation cover (Brady, 1974). Revegetation of exposed areas for long-term dust and water erosion control is commonly used and is the most cost-effective option. Typically the first stage of decommissioning involves demolishing the forecourt buildings and canopy. This gives clear access to the ground to remove the tanks and their associated pipe work. Next the site is checked for contamination before being backfilled and restored to a level surface.

5.4 Impact Assessment

The impact assessment exercise allows the assignment of relative significance to predict HSES impacts associated with the project, and to determine the manner in which impacts are to be avoided, mitigated or managed. This study employs the Rapid Impact Assessment Method (Pastakia, 1998). The Rapid Assessment Method (RAM) was considered suitable for the assessment of the project because the hazards and impacts appeared magnified from the onset. The RAM is also considered more organized and have the ability to integrate both qualitative and quantitative aspects of an assessment (Chambers, 1985).

The HSES impacts expected from the construction, operational and decommissioning of the service station are assessed in this section. For each HSES impact, an Environmental Classification (Table 6) is determined based on an adapted version of the Rapid Impact Assessment Method (Pastakia, 1998). Impacts are assessed according to the categories as Tabled in Table 5 and Ranking formulas are subsequently calculated as follow: Environmental Classification = A1 x A2 x (B1 + B2 + B3).

Table 5: HSES Impact Assessment Criteria

Criteria	Score
Importance of condition (A1) – assessed against the spatial boundaries of human interest it will affect	
Importance to national/international interest	4
Important to regional/national interest	3
Important to areas immediately outside the local condition	2
Important only to the local condition	1
No importance	0
Magnitude of change/effect (A2) – measure of scale in terms of benefit / disbenefit of an impact or condition	
Major positive benefit	3
Significant improvement in status quo	2
Improvement in status quo	1
No change in status quo	0
Negative change in status quo	-1
Significant negative disbenefit or change	-2
Major disbenefit or change	-3
Permanence (B1) – defines whether the condition is permanent or temporary	
No change/Not applicable	1
Temporary	2
Permanent	3
Reversibility (B2) – defines whether the condition can be changed and is a measure of the control over the condition	
No change/Not applicable	1
Reversible	2
Irreversible	3
Cumulative (B3) – reflects whether the effect will be a single direct impact or will include cumulative impacts over time, or synergistic effect with other conditions. It is a means of judging the sustainability of the condition – not to be confused with the permanence criterion.	
Light or No Cumulative Character/Not applicable	1
Moderate Cumulative Character	2
Strong Cumulative Character	3

Table 6: HSES Environmental Classification

Environmental Classification	Class Value	Description of Class
72 to 108	5	Extremely positive impact
36 to 71	4	Significantly positive impact
19 to 35	3	Moderately positive impact
10 to 18	2	Less positive impact
1 to 9	1	Reduced positive impact
0	0	No alteration
-1 to -9	-1	Reduced negative impact
-10 to -18	-2	Less negative impact
-19 to -35	-3	Moderately negative impact
-36 to -71	-4	Significantly negative impact
-72 to -108	-5	Extremely Negative Impact

Table 7: HSES Impact Assessment

Impact	Project Activity /Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Visual Impact	Construction	Aesthetic appearance and integrity of the site	0	-1	2	2	2	-6	0	Probable
	Operations	Aesthetic appearance and integrity of the site	3	3	2	2	2	24	+3	Probable
	Indirect Impacts	Perceived economic development	2	2	2	2	2	24	+3	Probable
Economic benefits	Construction	Employment and contribution to local economy	2	2	3	2	2	28	+3	Definite
	Operations	Employment and contribution to local economy	3	3	3	3	2	72	+5	Definite
	Indirect Impacts	Decrease in unemployment, contribution to local economy	3	3	3	3	3	81	+5	Definite
Skills development	Construction	Employment, technological development and transfer of skills	2	2	3	2	2	28	+3	Probable
	Operations	Employment, technological development and transfer of skills	3	3	3	3	2	72	+5	Definite
	Indirect Impacts	Transfer of skills and technological development	3	3	3	3	3	81	+5	Definite
Traffic	Construction	Delivery of equipment and building supplies	1	1	2	2	2	6	1	Probable
	Operations	Increase traffic, road wear and tear and accidents	1	-1	2	2	2	-6	-1	Probable
	Indirect Impacts	Increased economic activity due to traffic	2	2	3	2	2	28	+3	Definite
Health and Safety	Construction	Slips, trips and falls	2	1	2	3	1	12	-1	Probable
	Operations	Slips, trips and falls	2	1	2	3	2	14	-1	Definite
	Indirect Impacts	Slips, trips and falls	2	1	2	3	3	16	-1	Definite
Manual Handling	Construction	Chronic ills related to contact with hydrocarbon	2	-1	1	1	2	-8	-1	Improbable
	Operations	Chronic ills related to contact with hydrocarbon	2	-1	1	2	2	-10	-1	Improbable
	Indirect Impacts	Chronic ills related to contact with hydrocarbon	2	-1	2	2	2	-12	-1	Improbable
Violence to staff	Construction	Frustration, misunderstanding, theft/robbery.	2	-1	1	1	2	-8	-1	Probable
	Operations	Frustration, misunderstanding, theft/robbery.	2	-1	1	2	2	-10	-1	Probable
	Indirect Impacts	Frustration, misunderstanding, theft/robbery.	2	-1	2	2	2	-12	-1	Probable

Compressed Air systems	Construction	Small particles dislodged by compressed air	1	-1	2	2	2	-6	0	Probable
	Operations	Small particles dislodged by compressed air	1	-1	2	2	2	-6	-1	Probable
	Indirect Impacts	Damage or injury	1	-1	2	2	2	-6	-1	Improbable
Air Quality	Construction	Excessive dust generated from maintenance and upgrade activities	1	-1	2	2	2	-6	-1	Probable
	Operations	Fuel vapors, exhaust fumes from cars	1	-1	2	2	2	-6	-1	Probable
	Indirect Impacts	Air pollution from fuel vapors and exhaust fumes	1	-1	2	2	2	-6	-1	Improbable
Noise	Construction	Excessive noise generated from construction activities – nuisance and hearing loss	1	-1	2	2	1	-5	-1	Probable
	Operations	Noise generated from the operational activities – nuisance	1	0	2	2	2	0	0	Improbable
	Indirect Impacts	Noise pollution from operational activities	1	0	2	2	2	0	0	Probable
Waste production	Construction	Excessive waste production, littering, illegal dumping, contaminated materials	1	-1	2	2	2	-6	-1	Definite
	Operations	Excessive waste production, littering, contaminated materials	2	1	2	2	2	12	+2	Definite
	Indirect Impacts	Reduced cleanliness of Environment	2	2	2	2	2	12	+2	Probable
Ecosystem and Biodiversity Impact	Construction	Impact on fauna and flora. Loss of biodiversity	1	1	3	2	2	7	0	Improbable
	Operations	Impact on fauna and flora. Loss of biodiversity	1	1	3	2	2	7	+1	Improbable
	Indirect Impacts	Ecosystem change	1	-1	3	2	2	-7	+1	Improbable
Groundwater, Surface Water and Soil Contamination	Construction	Contamination from hazardous material spillages and hydrocarbon leakages	1	-1	2	2	1	-6	-1	Probable
	Operations	Contamination from hazardous material spillages and hydrocarbon leakages	2	-1	2	2	1	-10	-2	Probable
	Indirect Impacts	LANPL release into the vadose zone	2	-1	2	2	1	-10	-2	Improbable
Fire and explosion	Construction	Fire and explosion risk	1	-2	2	2	1	-10	-2	Probable
	Operations	Fire and explosion risk	1	-1	2	2	1	-5	-1	Probable
	Indirect Impacts	Fire and explosion risk	1	-1	2	2	1	-5	-1	Probable

Color coding for impact type	Health & Safety	Socio-Economic	Localized Long-term	Environmental

5.5 Discussion

From the impact assessment conducted, we deduced that the proposed development of Ondonga Service Station is suitable for the site assessed. The environmental classification of impacts for the development and operation of the service station is provided in Table 7. The probability ranking refers to the probability that a specific impact will happen following a risk event. These can be improbable (low likelihood); probable (distinct possibility); highly probable (most likely); and definite (impact will occur regardless of prevention measures).

The Impact Assessment for the development and operation of a service station yielded a net class value of +15 obtained from the Rapid Impact Assessment Method, which shows a residual positive impact of the development. In this regard, we note that none of the adverse impacts that were identified can be regarded as impacts that cannot be mitigated to acceptable levels. Also, the benefits of the proposed development outweigh any negative impacts identified. For this reason, the no-go option was also discounted and thus omitted from discussion in this chapter. (That said however, we still consider the no-go option in the public participation process discussed in the next chapter.)

A summary of the main SHES impacts may be summerised as follow:

- The proposed development will have a significant positive impact on the socio-economic environment of Walvis Bay; including: improved visual impacts, economic benefits, skills development and indirect economic impacts from additional traffic.
- If measured over the long term it is expected that the development will outweigh the negative socioeconomic aspects.
- The biophysical environment will mostly be affected by construction activities that could result in excessive noise and dust, however during operation, we expect waste and noise to be generated.
- The geotechnical and geo-hydrological aspects of the study area are regarded as the most sensitive. The soils of the study area are very permeable and the corrosiveness of the soil also contributes to such sensitivities that must be taken into consideration.
- In terms of safety and health, most impacts are associated with operations and employee safety. These impacts are however not major and can be mitigated with a good safety management system during operations.
- The proposed development will have a positive impact on the economy due to temporary and permanent employment opportunities.
- Finally, the project will also have a positive impact on the social environment as there will be visible investment from the private sector within this undeveloped area.

Notwithstanding the discussion above, the development should now be planned, constructed and operated in strict accordance with the mitigation measures and an Environmental Management Plan (EMP) which must adhere to any and all requirement of any authorizations issued for the proposed development. The EMP is developed in Chapter 7.

6 PUBLIC PARTIPATION PROCESS

Effective public involvement is an essential component of many decision-making structures, and is the only way in which the power given to communities can be used efficiently. The process of Public Participation is designed to provide sufficient and accessible information to Interested and Affected Parties (I&AP's) in an objective manner. Thus, in the EIA process, public consultation is a requirement under the Namibia Environmental Assessment Policy of 1994.

6.1 Purpose of the Public Participation Process

The main purpose of public participation in the EIA process is to ensure that issues are identified early during the process before major decisions are made. Moreover, public participation provides a platform for the following to happen:

- Provide information to IAPs and other stakeholders about the project background, proposed site, project concept and predicted potential impacts.
- Establish the public's interests, concerns and expectations regarding the proposed project.
- Obtain input from IAPs, the public and other key stakeholders.
- Finally, assist the IAPs to:
    - Verify that their issues have been captured;
    - Verify that their issues have been considered by the technical investigations; and
    - Comment on the findings of the Basic Assessment Report.

6.2 Identification of Key Stakeholders

The following key stakeholders were identified for consultation purposes:

- Ministry of Mines & Energy: Mr Andreas Sheehama
- Ministry of Environment and Tourism (DEA): Dr. F.M. Sikabongo
- Walvis Bay Municipality: Mrs. N Amutenya-Amatsi
- Walvis Bay Town council: Mr. I Wilfried
- Erongo Regional Council: Hon. N Andre (Governor for Erongo region)
- Walvis Bay community members
- Government offices in proximity

6.3 Initiation of Environmental Scoping Process

A Background Information Document (BID) for the project was promulgated to the enumerated stakeholders (see section 6.2). The BID contained the relevant information about the proposed project and promoted stakeholders and public participation in the scoping process. A comment sheet was provided at the end of the BID report inviting comments on issues of interest and importance to the stakeholders. Subsequently, site notices were erected, and information posters were placed at strategic locations including: Erongo Regional Council, Walvis Bay Municipality and the site.

Fig 16: Regional Council

Fig 17: Municipality of Walvis Bay

Fig 18: Site

The scoping process was further initiated by publicizing it through the Namib Times (09 & 24 September 2021) and Confidante newspapers (09 & 16 September 2021). The publications announced the beginning of the scoping process and invited stakeholders and members of the public to register as IAPs so as to participate in the EIA for the construction of the service station. IAPs were to register with the Environmental Consultant and to submit their concerns or inputs at j88antonius@gmail.com. Additionally, they were informed of a public participation meeting on the 25 September 2021.

Despite a wide dissemination of the BID, comments at this staged were only received from the Municipality of Walvis Bay who suggested a face-face presentation. The presentation was held on Monday, the 20th of September 2021. The list of attendees to the presentation are attached as part of Annex 2. The following recommendations were submitted (See Annex 3):

- Prolonged exposure to fuel vapours.
- Geographical layout of the area (for blasting purposes).
- Hazardous waste Management
- Provide information on the potential traffic flow.

These recommendations were considered, and these issues were incorporated in Chapters 4, 5 and 7 of this document.

6.4 Public Consultation

Subsequent the promulgation of the BID to IAPs and advertisements in Newspapers, a consultation meeting was held on the 20th September 2021 with the Municipality of Walvis Bay, and later on the 25th of September on site with the public. Annex 3 provides proof of this.

The procedure followed in the public consultation was in line with the Environmental Management Act (EMA No 7 of 2007) and the Environmental Impact Assessment Regulations of 2012 as follows. The meeting with the Walvis Bay municipality was attended by 7 municipal officials from various concerned departments. These were representative from the following departments: fire and safety, traffic, town planning, environmental and occupational health and safety. The Public Consultation Meeting on site however had zero attendance and accordingly no I&AP's were registered.

The meeting started with a project background, project concept and predicted potential impacts. The public's interests was then established, and this was followed by a session for concerns and expectations regarding the proposed project. Finally, a roll call was conducted and information on all I&APs present at the meeting was collected. Meeting minutes and attendance register are attached in Annex 4.

6.4.1 Issues & Concerns Raised

Overall, the I&APs responded positively and participated in the consultation exercise with enthusiasm. The following comments were registered:

- Consider tank location on site. Minimum safe distance to nearest residence must be 50m.
- Consider Walvis Bay's corrosive weather and SANS standards when doing tank installations.
- Consider accumulative traffic impact due to development.
- Consider loading bay for fuel tanker during design.
- Consider Walvis Bay's high water pressure problem for fire safety.

The proponent was informed and requested to consider these comments.

6.4.2 Response by Proponent on Issues & Concerns Raised

The proponent (Nambaza Investments cc) respondent to the comments as follow:

- Tank installation and location will be done in consultation with the Walvis Bay Municipality town planning and engineering department.
- All tanks and infrastructure will be installed as per SANS standards. This is also the requirement from the fuel supplier. The relevant environmental risks are addressed in the Environmental Management Plan (EMP).
- Accumulative traffic will be considered by providing access parking and designing access way in such a manner to allow free and seamless movement. This also apply to the parking bay for the fuel tanker during offloading of cargo.
- The traffic department have informed that a firefighting station is being developed on the adjacent street. This mitigates the potential impacts of any explosions. Additional measures are provided for in the EMP for all the phases of the project.

6.4.3 Review of Draft Environmental Scoping and Management Plan Report

The draft report was compiled and shared with the Walvis Bay Town Council on the 27th September 2021. The same was also posted at the Ministry of Mines and Energy Resource Centre for public review and commenting for a minimum period of 2 weeks. A detailed EIA report was available for their comments and that an electronic copy could be mailed on request from j88antonius@gmail.com.

6.4.4 Public Participation: Way Forward

We await comments on the reports. The comments (if any) will be adopted as the final report before submission to the Competent Authority: MME and the decision regarding the EIA report will be published.

6.5 No-Go option

The ‘no-go’ option is sometimes referred to as the baseline alternative, ‘no-action’ alternative or even the ‘zero-alternative’ (Glasson et al., 1999). It assumes that the activity does not go ahead, thus implying a continuation of the current situation or the status quo.

In a situation where negative environmental impacts have high significance, the ‘no-go’ option takes on particular importance (World Bank, 1996). Therefore, the ‘no-go’ option, as well as all other relevant alternatives must be described, assessed and evaluated at the same scale and level of detail that enables adequate comparison with the proposed project.

In our case, the “no-go” option means maintaining the status quo were no service station will be constructed. This would be the best for the environment given that it remains untouched, however, the public participation meeting revealed that the ‘no-go option’ is not ideal as it means no development. Moreover, the description of the baseline environment in Section 4 which focussed on the key characteristics of the environemnet, and values or importance attached to the environment revealed that the project will result in a positive socio-economic contribution through job creation and will provide much needed services and spin off industries in the immediate vicinity.

7 ENVIRONMENTAL MANAGEMENT

This section outlines the Environmental Management Plan (EMP) wherein the HSES impact mitigation measures are proposed and considered. The EMP is structured so as to provide its various intended recipients (Developer, ER, consulting engineers and contractors) with mitigation measures immediately applicable to their respective scopes of work. The management requirements for the various recipients carrying out work for this project are divided according to the main project phases.

7.1 Planning and Design: Service Station

During the phases of planning for future operations, construction and decommissioning of the facility, it is the responsibility of proponent to ensure they are and remain compliant with all legal requirements. The proponent must also ensure that all required management measures are in place prior to and during all phases, to ensure potential impacts and risks are minimized. The following actions are recommended for the planning phase and should continue during various other phases of the project:

- Ensure that all necessary permits from the various ministries, local authorities and any other bodies that governs the construction (maintenance) activities and operations of the project remains valid.
- Ensure all appointed contractors and employees enter into an agreement, which includes the EMP.
- Ensure contractors, subcontractors, employees and all personnel understand the contents of the EMP.
- Make provisions to have a Health, Safety and Environmental Coordinator to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site.
- Furthermore, have the following emergency plans, equipment and personnel on site where reasonable to deal with all potential emergencies:
    - Risk management / mitigation / EMP/ Emergency Response Plan and HSE Manuals
    - Adequate protection and indemnity insurance cover for incidents;
    - Comply with the provisions of all relevant safety standards; Procedures, equipment and materials required for emergencies.
    - If one has not already been established, establish and maintain a fund for future ecological restoration of the project site should project activities cease and the site is decommissioned, and environmental restoration or pollution remediation is required.
- Establish and / or maintain a reporting system to report on aspects of construction activities, operations and decommissioning as outlined in the EMP.
- Keep monitoring reports on file for submission with environmental clearance certificate renewal applications where needed.
- Appoint a specialist environmental consultant to update the EA and EMP and apply for renewal of the environmental clearance certificate prior to expiry.

7.1.1 HSES Impact mitigation strategies

The following general mitigation strategies are recommended for the planning and design phase to reduce identified HSES impacts:

- Design boundary fencing in such a way that small burrowing and domestic animals do not enter the project site.
- Buildings must be designed such as to minimise the transmission of noise from the inside to the outdoors. In doing so, ensure that the facility is designed to take into account the maximum allowable equivalent continuous

day and night rating levels of the potentially impacted sites outside the project boundary.
- Fuel tanks and fuel dispensers should be designed and installed in line with SABS and the manufacturer's recommendations. Installation should be done with care as damage can occur during installation.
- Ensure landscaping designs prohibits the planting of potentially alien invasive plant species (e.g. Tecoma stans, Pennisetum setaceum, etc.) for decorative purposes and incorporates indigenous vegetation that is adapted to local weather conditions.

7.1.2 Strategies to optimize Socio-Economic Benefits

The following mitigation measures are recommended for the planning and design phase to reduce the impact on the socio-economic aspects.

- The contractor should be required to employ locally where possible. The requirements for employing local people should be formalised within the contractor's contract. Should a position be offered to non-local person the contractor should be able to prove that no local person qualifies for such a position, through advertising.
- A provision stating that all unskilled labour should be sourced from local communities should be included within tenders concerning the construction and/or maintenance of services infrastructure.
- Provisions promoting gender equality pertaining to recruitment should be included within tender documents concerning the construction and/or maintenance of services infrastructure.
- Women should be given preference for certain unskilled jobs (e.g. flag bearers).
- It is crucial that the project procurement criteria include requirements for training and skills development of the contractor's workforce by the contractor. The training should be able to capacitate the employees to apply for permanent positions during the operations of the solar power facilities.
- The proponent must follow up to ensure that the contractor is indeed following the guidelines as prescribed in this EMP.

7.2 Responsibilities

The responsibility for the implementation of the EMP ultimately lies with the proponent, who is also responsible for the eventual operation of these developments. The implementation of the EMP requires the involvement of several key individuals appointed by the proponent, each fulfilling a different but vital role to ensure sound environmental management during each phase of these developments.

The following positions and their respective responsibilities are outlined below:

- Employer's Representative: to manage projects during different phases.
- Environmental Control Officer: to oversea the implementation of EMP
- SHES Officer: Construction and Operations and Maintenance).

7.2.1 Employer's Representative (ER)

The ER is appointed by the Developer to manage all contracts for work/services that are outsourced during all development phases. Any official communication regarding work agreements is delivered through this person. The ER should with the commencement of the project appoint a competent ECO who will represent the Developer on-site. He/she will have the responsibility regarding the implementation of this EMP to ensure the necessary legal authorisations have been obtained; and to develop, managing implementation of and maintaining all development.

7.2.2 Environmental Control Officer (ECO)

The ECO should be a competent person who is the Developer's on-site representative primarily responsible for the monitoring and review of on-site environmental management and implementation of the EMP by the Contractor. If no ECO is appointed the duties of the ECO fall upon the ER.

The ECO's duties include the following:

- Assisting the ER in ensuring that the necessary legal authorisations have been obtained;
- Maintaining open and direct lines of communication between the ER, Developer, the Construction and/or Operations and Maintenance Contractor, and Interested and Affected Parties (I&APs) with regard to this EMP and matters incidental thereto;
- Monthly site inspection of all construction and/or infrastructure maintenance areas with regard to compliance with this EMP;
- Monitor and verify adherence to the EMP (audit the implementation of the EMP) and verify that environmental impacts are kept to a minimum;
- Be fully conversant with the Environmental Management Plan.

7.2.3 Safety Health and Environmental (SHES) Officer

The SHES Officer should be a competent person to oversee safety, health and environmental affairs. He/she has the following responsibilities:

- Convey the contents of this EMP to the contractor and undertake inspection of the site to monitor compliance with the EMP.
- Report any non-compliance or remedial measures that need to be applied to the appropriate environmental authorities, in line with the requirements of the EMP.
- Submitting a report at each site meeting which documents all incidents that have occurred during the period before the site meeting.
- Be fully conversant with the Environmental Management Programme.

7.3 Monitoring

A monitoring programme will be in place not only to ensure compliance with the EMP through the contract/work instruction specifications, but also to monitor any environmental impacts which have not been accounted for in the EMP. The following measures will be incorporated as part of the monitoring programme:

- A monitoring programme will be implemented for the duration of the construction phase. This programme will include monthly audits that will be conducted by the ECO/s for the duration of the construction phase – the ECO shall undertake this environmental monitoring with the audits considering compliance with the EMP, the EIA conditions, as well as the conditions of any permits and/or licenses.
- On-going monitoring is to be undertaken by the Contractors' Environmental Manager/Officer – this will include notification to the ECO and proponent EO should an incident take place.
- External auditing may take place at unspecified times by the authorities and/or other relevant authorities.
- An independent, suitably qualified, auditor will need to be contracted to conduct an audit once the construction phase of the project is completed according to the provisions of the EMP.
- The Contractor's Environmental Officer must undertake regular site inspections (at least twice weekly) to ensure all legislative requirements are adhered to. Proof of such inspections shall be kept on file for ease of reference or for audit purposes.

7.3.1 Contractor

The Contractor is responsible for the implementation of the EMP, on-site monitoring and evaluation of the EMP. It is envisaged that various contractors might be appointed at various periods for various tasks throughout the life cycle (construction through to decommissioning phase) of this project. In order to ensure sound environmental management, the relevant sections of this EMP should be included in all contracts of work outsourced thus legally binding all appointed contractors and sub-contractors.

Furthermore, all contractors shall ensure that adequate environmental awareness training of senior site personnel takes place and that all construction workers and newcomers are inducted on the environmental, health and safety issues related to the project as well as importance and implications of the proposed EMP. The induction process shall be conducted, as far as is possible, in the employees' language of choice. All environmental training sessions, including names, dates and the information presented should be recorded and be kept on site.

7.3.2 Environmental Specifications: Awareness, Training and Competence

It is important to ensure that all personnel have the appropriate level of environmental awareness and competence to ensure continued environmental due diligence and ongoing minimisation of environmental harm. To achieve effective environmental management, it is important that employees, Contractors and Subcontractors are aware of the responsibilities in terms of the relevant environmental legislation and the contents of this EMP.

Environmental training may typically include the following:

- Employees must have a basic understanding of the key environmental features of the construction site and the surrounding environment;
- Employees will be familiar with the requirements of the EMP and the environmental specifications as they apply to the construction of the power station.
- Basic training in the identification of archaeological artefacts, and rare and endangered flora and fauna that may be encountered on the site.
- Awareness of any other environmental matters, which are deemed to be necessary by the ECO.

Records must be kept of those that have completed the relevant training. Training can be done both in a written or verbal format and in an appropriate language but will be in an appropriate format for the receiving audience. Where training has been done verbally, persons having received training must indicate in writing that they have indeed attended a training session. A regular form of written or verbal testing will have to be designed.

7.4 The Construction Phase and Construction Mitigation Details

All activities involved in the development phases of the service station have been identified together with all aspects that may have potential impacts. The construction phase of the EMP aims to address environmental and social risk pertaining to the construction phase.

The following table provides the Environmental Management Plan and the EMP Implememention Strategy a large scale overview of all the major environmental management themes pertaining to the project activities.

Table 8: Environmental Management Plan (EMP)

Aspect	Impact	Mitigation	Indicator	Responsible Party
Waste Management Plan	There is a potential environmental contamination and degradation from waste on site.	The Contractor should compile a Waste Management Plan which should address as a minimum the mitigation measures included below	Correct handling of waste	Contractor and ECO
Hazardous waste	Impact on soil and water.	• All heavy construction vehicles and equipment on site should be provided with a drip tray. • The drip trays should be cleaned daily and spillage handled, stored and disposed of as hazardous waste. • Maintenance and washing of construction vehicles should be take place only at a designated workshop area. • The workshop should have an oil-water separator for collected run-off from washing. • Spilled cement and/or concrete (wet or dry) should be treated as hazardous waste and disposed of by the end of each day in the appropriate hazardous waste containers. • All hazardous substances or chemicals should be stored in a specific location on an impermeable surface that is bunded.	Correct handling, use and storage of materials, including hazardous material.	Contractor and ECO
General waste	The incorrect management of solid waste can result in the pollution of soil, groundwater and the general environment. Windblown litter can also contribute to a negative visual impact.	• The construction site should be kept tidy at all times. All domestic and general construction waste produced on a daily basis should be cleaned and contained daily. • No waste may be buried or burned. • Waste containers (bins) should be emptied regularly and removed from site to a recognised (municipal) waste disposal site. All recyclable waste needs to be taken to the nearest recycling depot. • A sufficient number of separate bins for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such. • Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter. • No waste may remain on site after the completion of the project	Complaints from neighbours. No windblown waste. Contamination of the ground and water resources	Contractor and ECO
Sewage and grey water.	Incorrect management of	• Sewage should not be discharged directly onto open soil. • All sewage must be removed regularly and disposed of at a	No sewage spills on site.	ECO

	sewage and grey waste may contaminate the soil, vegetation and underground water resources.	recognised (municipal) sewage treatment facility. • Grey water that is not recycled should be removed along with sewage on a regular basis. • Separate toilets should be available for men and women and should clearly be indicated as such. • Portable toilets (i.e. easily transportable) should be available at the construction site: • Sewage needs to be removed on a regular basis to an approved municipal) sewage disposal site. Alternatively, sewage may be pumped into sealable containers and stored until it can be removed. • Workers responsible for cleaning the toilets should be provided with latex	No sewage and grey water pools on site.	
Environmental Training of workers	Without proper training the health and safety of workers will be at risk and preventable environmental impacts could occur.	All construction workers are to undergo environmental induction (training) which should include as a minimum the following: • Discussion of the potential environmental impacts of construction activities. • Employees' roles and responsibilities, including emergency preparedness. • Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities.	All employees adhere to the mitigation measures provided in this document.	MET and proponent
Communication	Inability to communicate the Environmental obligations effectively to responsible parties can result in unnecessary environmental degradation.	To ensure that the construction activities do not result in avoidable impacts on the environment by anticipating and managing the impacts. • All site instructions pertaining to environmental matters issued by the Contractor are to be copied to the ECO. • All sub-contractors, employees, suppliers or agents etc. must be fully aware of the environmental management requirements detailed in this EMP. • Have a copy of the EMP and ECC available on site at all times for reference purposes.	ECO is aware of decisions taken by the engineer and contractors. All relevant stakeholders are also kept up to date of activity taking place on site.	ECO, Contractor and proponent
Socio-economic impact	The activity could benefit local Communities through job creation, however	Adhere to the legal provisions in the Labour Act (see Table 1) for the recruitment of labour (target percentages for gender balance, optimal use of local labour and SME's, etc.) in the Contract. The Contractor should compile a formal recruitment process including the following	Contribute to employment and capacity building in the local	Contractor and ECO

	negative impacts are also possible and must be controlled.	provisions as a minimum: • Recruitment should not take place at construction sites. • Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside the agreed upon process. • Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those who are qualified and from the project area and only then look to surrounding towns. • Clearly explain to all job seekers the terms and conditions of their respective employment contracts (e.g. period of employment etc.) – make use of interpreters where necessary.	community. Creating awareness amongst employees and the public.	
Heritage Resources	Heritage resources can be impacted on during the site clearance, earthworks and the construction of the facility.	Should a heritage site or archaeological site be uncovered or discovered during the construction phase of the project, a "chance find" procedure should be applied in the order they appear below: • If operating machinery or equipment stop work; • Demarcate the site with danger tape; • Determine GPS position if possible; • Report findings to the construction foreman; • Report findings, site location and actions taken to superintendent; • Cease any works in immediate vicinity; • Visit site and determine whether work can proceed without damage to findings; • Determine and demarcate exclusion boundary; • Site location and details to be added to the project's Geographic Information System (GIS) for field confirmation by archaeologist; • Inspect site and confirm addition to project GIS; • Advise the National Heritage Council (NHC) and request written permission to remove findings from work area; and • Recovery, packaging and labelling of findings for transfer to National Museum. • Should human remains be found, the following actions will be required: • Apply the chance find procedure as described above; • Schedule a field inspection with an archaeologist to confirm that remains are human;	No heritage artifacts are disturbed or destroyed on site and the NHC is informed should any heritage artifacts be discovered on site.	ECO, Proponent and Contractor

		• Advise and liaise with the NHC and Police; and • Remains will be recovered and removed either to the National Museum or the • National Forensic Laboratory.		
Topsoil	Topsoil may be removed during the site preparation and excavation process, which could lead to land degradation.	To minimise the erosion of topsoil: • When excavating, topsoil should be stockpiled in a demarcated area. • Stockpiled topsoil should be used to rehabilitate the nearest borrow area (existing borrow pits), if such an area is located less than 20 km from the stockpile.	All topsoil removed is rehabilitated to its natural state at the end of construction.	ECO and Contractor
Stormwater runoff, erosion, and pollution of surface water and groundwater resources	Contamination of storm water runoff can impact on the surface and groundwater resources. The mismanagement of storm water can furthermore result in erosion	• Prevent storm water from eroding the land and becoming contaminated. • Should construction activities for the proposed infrastructure need to take place within the drainage features (i.e. linear development including roads and transmission lines) this must transect the streams at right angles and be limited as far as possible to ensure minimum disturbance of such areas. • Demarcate a 100 m no-go zone from ephemeral watercourses during construction to prevent construction activities from occurring near the ephemeral watercourses to prevent further loss of vegetation, erosion and watercourse sedimentation. • Any disturbed areas must be rehabilitated as Rubble, sand and waste material resulting from the construction activities must be cleared up but not disposed in any stream or drainage channels as it will impede on the flow in these channels. • The abstraction of groundwater must be properly controlled within a prescribed water demand management plan and as required by the license conditions. • A critical groundwater level must be determined and the groundwater table must be maintained above such critical levels during water abstraction periods.	Stormwater not contaminated by construction activities. Storm water control measures are effective at regulating runoff from the site and erosion channels do not develop. Freshwater ecosystems are not unduly disturbed by construction activities within the drainage channels.	Contractor and ECO
Traffic	During the construction and operation phase, it is expected that there will be regular	To ensure that increased traffic volume is managed efficiently to minimise associated impacts: • Demarcate roads clearly. • Off-road driving should not be allowed. • All vehicles that transport materials to and from the site must be	Traffic is orderly, free flowing and controlled.	Contractor

	movement of vehicle to and from the site for transportation of workers and materials.	roadworthy. • Drivers that transport materials should have a valid driver's license and should adhere to all traffic rules. • Loads upon vehicles should be properly secured to avoid items falling off the vehicle. • Traffic movement to be planned in consultation with municipality. • Access road entrances must be demarcated, both at their exit point from existing roads and the entry point to the site. • Loading bay for fuel tanker to be suitably positioned to allow seamless traffic movement. • Erect signage to warn motorists about construction activities and heavy vehicle movement where appropriate.		
Dust	Dust generated from material handling, roads and stockpiles can become a nuisance to neighbours.	To avoid nuisance impacts caused by dust as far as possible: • A watering truck should be used on gravel roads with the most heavy vehicle movement especially during dry and windy conditions. • However, due consideration should be given to water restrictions during times of drought.	No complaints received from public and or site staff.	Contractor and ECO
Noise	The increase in traffic and operation of equipment such as welding and fixing of the racks may result in noise becoming a nuisance.	To ensure that noise from the construction activities do not exceed unacceptable levels: • Work hours should be restricted to between 08h00 and 17h00 where construction involving the use of heavy equipment, power tools and the movement of heavy vehicles is less than 500 m from residential areas • If an exception to this provision is required, all residents within the 500 m radius should be given 1 week's written notice. • Workers will be required to wear ear protecting devices whenever possible. • If the contractor needs to undertake activities outside the hours above, the residential and community receptors within audible range of the activity must be notified within 24 hours in advance of the planned activity.	No noise complaints received.	Contractor and ECO

Table 9: Working Area Mobilization

Aspect	*Impact*	*Mitigation*	*Indicator*	*Responsibility*
Demarcate the construction site	Without proper demarcation, the public would be able to access the site and would be at risk.	It is of outmost importance to prevent the encroachment of construction areas into surrounding environments.	Proper fencing in place to demarcate the construction	*Contractor*
Stockpiling of equipment and materials	Incorrect storing of materials can result in water and soil contamination, dust and or erosion. Incorrect storage and handling of materials also pose a risk of environmental contamination and could jeopardise the safety of public / site staff.	• Ensure that all materials and equipment handled and stored in a manner that environmental contamination and safety hazards are limited. • The IPP Contractor shall be advised by the Contractor of the housekeeping arrangements including areas intended for the stockpiling of materials. • Implement General Specifications as presented in this document.	• No public complaints or water/ soil contamination • Correct handling, use and storage of materials, including hazardous materials. • No incidents of environmental contamination. • No accidents or incidents related to the handling of materials.	*Contractor and ECO*
Ablution facility	The lack of adequate ablution facilities and recess areas can compromise the health of site staff and result in environmental degradation.	To minimise the potential environmental impacts associated with workers on the site: Implement General Specifications	Adequate ablution facilities are in place.	*Contractors and ECO*
Removal of vegetation	If the removal of vegetation is done incorrectly it may leave the site prone to erosion and compromise rehabilitation requirements post construction.	To ensure that the site is not prone to erosion and any disturbed areas can be rehabilitated as necessary post-construction: Implement General Specifications.	Topsoil conserved in stockpiles for later use if necessary.	Contractor and ECO
Excavations for bulk earthworks	Created embankments (cut and fill) and retaining walls are required to level and stabilise the site. Excavations are also required to accommodate bulk services which might impact on the environment.	To limit the impact to the environment caused by excavations: Implement General Specifications	No heaps of materials left on site after the construction phase.	Contractor and ECO
Removal of Equipment and temporary structures	If the construction site is not decommissioned it can result in environmental degradation	It is very imperative to leave the impacted area in an acceptable state: Implement General Specifications.	The area impacted by the construction activities pose no threat to the environment	Contractor and ECO

7.5 Operations and Maintenance

The following mitigation measures should be complied with and carried out during any maintenance works associated with the services infrastructure within the planned development areas.

Table 10: SHES Mitigation during operation and maintenance

Aspect	Mitigation measure
EMP Implementation	If any construction is to be conducted as part of maintenance works for the services infrastructure within the project area reference must be had to the construction mitigation measures of this EMP.
EMP and Procedures	To ensure the operation of the facility does not result in avoidable impacts on the environment, and that any impacts are anticipated and managed. The proponent must appoint a suitably qualified independent ECO to monitor compliance and compile and environmental audit report. This must be coupled to a compliance audit with the provisions contained within the EMP.
Socio-economic impacts	To ensure the operation of the facility maximises positive impacts on the socioeconomic environment, the following must be done: • Employ local labour for the operational phase, where possible, and particularly for day to day operations and maintenance. • Where possible encourage the use of local suppliers for procurement of goods, materials and services. • Implement training and capacity building programmes to enhance the ability of local community members to take advantage of available employment opportunities.
Protection of ecology	To prevent unnecessary disturbance to natural vegetation and fauna. • Any alien plants within the site footprint must be immediately controlled to avoid establishment of a soil seed bank. • Control measures must follow established norms and legal limitations in terms of the method to be used and the chemical substances used. • Ensure removal and control of existing invasive alien plant species (i.e. Prosopis sp.) onsite and within the surrounding 6 m wide fire break.
Stormwater runoff, erosion, and pollution of surface water and groundwater resources.	• Prevent stormwater from eroding the land and becoming contaminated. • The areas likely to contribute to contaminated runoff, such as the workshop must be designed to have hardened surfaces equipped with oil and grease traps to capture any contaminated runoff. These must be maintained during operation. • Should storm water infrastructure be required, a management plan must be in place to ensure as a minimum that the structures are visually monitored after large rainfall events to ensure that eroded areas do not develop. • Any refuse generated must be disposed of in suitable bins and removed from site at regular intervals. • Ensure proper groundwater abstraction Management strategies
Visual impact	To protect the sense of place: Keep access roads clear and keep all lighting minimal, within the requirements of safety and efficiency.
Noise impact	To ensure that noise from the operational activities does not exceed unacceptable levels. • All plant, equipment and vehicles must be kept in good repair. • When ordering plant and machinery, manufacturers must be requested to provide details of the sound power level. Where possible, those with the lowest sound power level (most quiet) must be selected.
Monitoring	The ECO should monitor the implementation of the Property Development EMP: before, during and after construction

7.6 Decommissioning

In terms of the Environmental Management Act, it is necessary to consider the environmental impacts of decommissioning of any development, however, Ondonga service station is expected to be operational for a period of 30 years or more. Thereafter, the service station facility could either be decommissioned or upgraded, depending on the feasibility.

According to Namibian Legislation, decommissioning is considered as a separate activity which should be dealt with on its own. This EMA requires the EIA to make recommendations that should be considered in the new EIA process prior to decommissioning. However, seeing the decommissioning phase is far in the future, these conditions are subject to change.

A decommission plan should address the removal of the main infrastructure associated with the service station such as fuel tanks and infrastructure. Such a plan must also address aspects such as monitoring and management of surface of surface water flows and erosion.

The following mitigation measures are recommended from an ecological point of view as part of the closure phase:

- Rehabilitate all areas impacted on by the infrastructure
- Remove all construction waste; rip temporary tracks, if feasible, and replace the topsoil.
- Re-introduce indigenous vegetation (especially protected species – i.e. Mopane) should form part of the rehabilitation process

In terms of socio-economic impacts, the following mitigation measures are recommended:

- Maximise the use of local labour on decommissioning activities;
- Provide adequate notification to staff and other stakeholders of the pending decommissioning;
- Provide staff with references so that they can pursue work with other companies;
- If feasible, assist staff in finding employment at other operations.

The proponent should develop a closure plan to be updated on an annual basis commencing at least 10 years prior to the envisaged decommissioning. The closure plan should identify the targets and objectives for closure, and will be important in allowing operations to work toward closure objectives. The proponent should commission specialist inputs from time to time to provide direction on the closure plan to ensure the end result is as closely aligned with prevailing best practice as is possible, thereby minimising the risk and potential costs associated with decommissioning phase. The various stakeholders should also be engaged as early on in the closure planning process to ensure their interests are known and catered for from the point of origin. The construction phase EMP could be used as a guideline to facilitate the detailed decommissioning phase EMP.

8 CONCLUSION

The proposed development and operation of Ondonga service station twill have a limited and insignificant impact on the environment. In cases where there are any impacts the Draft Management Plan and its mitigation measures should be adhered to.

The EIA study findings showed minor negative environmental impacts of varying degrees depending on the nature of the activity and impacts arising thereof; and it also shows major positive impacts especially in terms of socio-economic aspects. The identified impacts, mitigation and monitoring activities, indicators, responsible parties and monitoring frequency are indicated in the EMP. The EMP should now form the obligatory conditions upon which the EIA clearance certificates will be issued and non-compliance attracts prosecution. The EMP should be implemented throughout the project lifecycle and an Environmental Management System formulated and implemented based on the EIA study findings. Environmental monitoring and performance evaluations should be conducted and targets for environmental improvement set and monitored throughout the project lifespan. It is also our determination that the findings should be incorporated earlier and sound SHES policies and supportive programmes implemented. Developing a service station on the site is therefore the best-considered alternative..

Further recommendations to guide the Proponent on the key activities that should be done to effectively manage safety, health and environment include:

- Develop SHES policies based on the study findings and use impacts evaluation to formulate the objectives.
- Develop and implement Environmental Management Systems.
- Develop an occupational health and safety plan
- Adhere to the environmental management obligations upon which the EIA clearance certificate will be issued by the MET: DEA.
- The EIA clearance will not exempt the Proponent from obtaining other relevant permits and should do as such:
- The SHES policies must also provide relevant training to capacitate the workers with knowledge and skills to manage safety, health and the environment.

It is therefore recommended to the MME that the proponent be issued with an Environmental Clearance Certificate for the developing a service station on Erf 7214, Kuisebmund, Walvis Bay.

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Annexure 1: Notice to Interested and Affected Parties

Mr. Julius Antonius
j88antonius@gmail.com
+264 (0) 81 877 8855

P.O. Box 8857
Bachbrecht
Windhoek

To: **Interested and Affected Parties** Date: **08 September 2021**

Re: Environmental Scoping Assessment and Environmental Management Plan for Ondonga Service Station on Erf 7214, Thomas Hochland street, Extension 5, Kuisebmund, Walvis Bay

Dear Sir/Madam

Nambaza Investments cc plans to construct and operate a service station on Erf 7214 Thomas Hochland Street, Ext 5, Kuisebmund, Walvis Bay. The project site is zoned fo business and measures 2629 square meters. The construction, operations and decommissioning activities of the project (i.e. energy generation and distribution activities) requires compliance with the Environmental Impact Assessment (EIA) Regulations of 6 February 2012 (EIA Regulations) as promulgated in the Government Notice No 28, 29 and 30, circulated in terms of the Environmental Management Act (EMA), Act no. 7 of 2007.

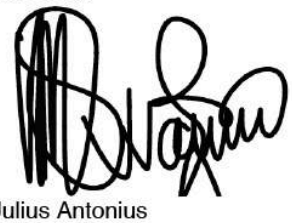
Mr. Julius Antonius was appointed as an independent environmental consultant (Environmental Assessment Practitioner: EAP), to undertake the EIA required for the construction and operation of the proposed facility.

Project: Environmental Scoping Assessment and Environmental Management Plan for the Operational Activities of Ondonga service station.
Proponent: Nambaza Investments cc
Environmental Assessment Practitioner: Mr. Julius Antonius

All Interested and/or Affected Parties (IAPs) are invited to register with the environmental consultant to receive further documentation and communication regarding the project. By registering, IAPs will be provided with an opportunity to provide input that will be considered in the drafting of the environmental assessment report and its associated management plan. Please register as an IAP and provide comments by 30 September 2021. To register, please contact:

Email: j88antonius@gmail.com
Cell: +264 (0) 81 877 8855

Should you require any additional information please contact Mr Julius Antonius.
Sincerely,



Julius Antonius

Annex 2: Advertisements

Page. 24 | CONFIDENTE | lifting the lid 09-15 September 2021

Classifieds

Contact: Mandy
• T: 061 24 6136 • C: 081 895 8296 • E: mandy@confidentenamibia.com

COVID–19 PROTECTION WEAR

DPI HEALTH
Contact: 0812029137
Email: destinyplannerinv@gmail.com
Location: Number 9 Rossini Street
Windhoek West

Our prices for Sanitizer
25 Liter Spray or Gel
N$1200-00

5 liter Spray or Gel
N$270-00

600ml Spray
N$95-00

330ml Gel
N$55-00

All products are 75% alcohol based and are NSI approved

N$2.00 EACH
N$100 per pack of 50

N$2.00 EACH
N$100 per pack of 50

KN95 Face Masks
N$12.00 EACH
N$240 per box of 20

NamazaINV
NAMAZA INVESTMENT CC

CALL FOR PUBLIC PARTICIPATION
NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT FOR THE DEVELOPMENT OF A SERVICE STATION ON ERF 7214 EXTENSION 5 KUISEBMUND WALVIS BAY

Notice is hereby given to all potential interested and Affected Parties (I&APs) that an application is made to the Environmental Commissioner in terms of the Environmental.

Management Act (No.7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4879 of 6 February 2012) for the following:

Project Name: Ondonga Service Station
Project Location: Erf 7214, Extension 5, Kuisebmund, Walvis Bay
Project Description: A service/fuel station with four dispensing pumps for petrol and diesel.

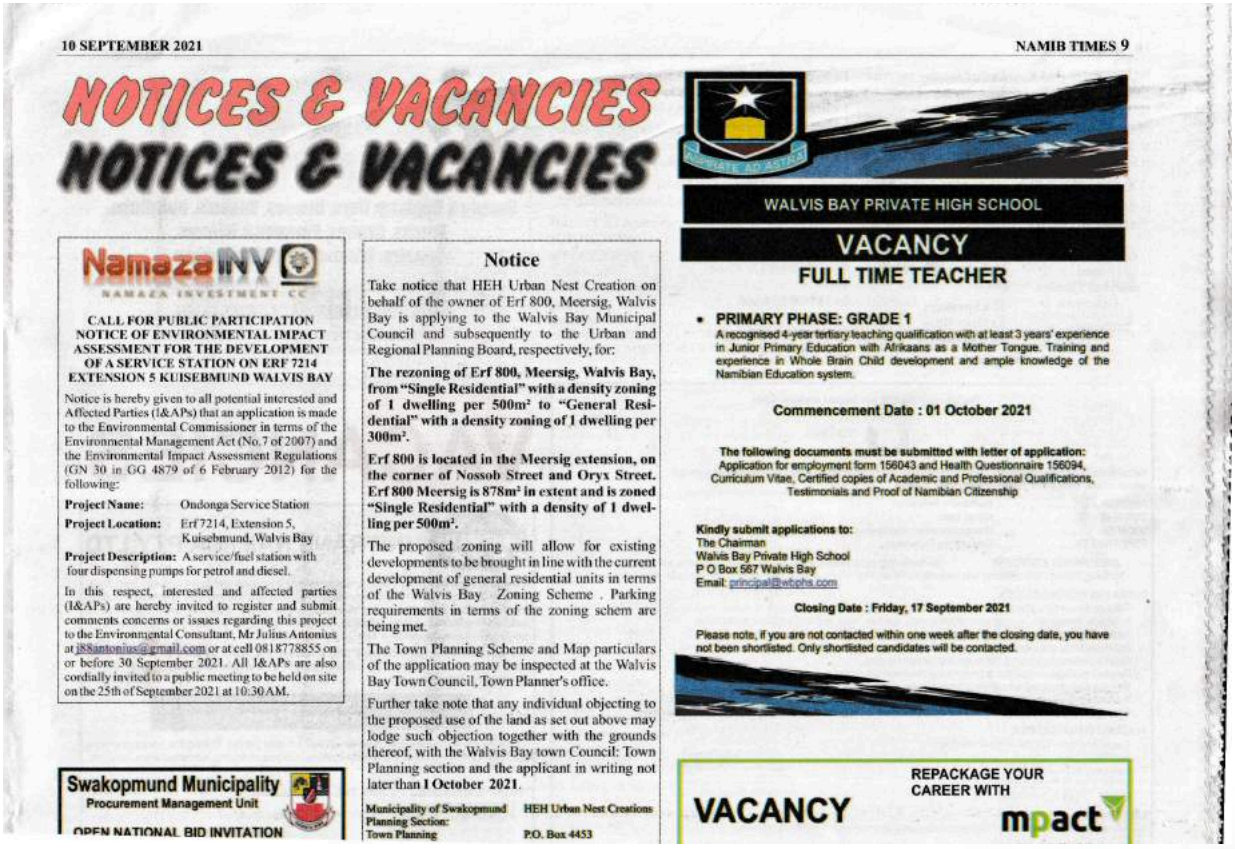
In this respect, interested and affected parties (I&APs) are hereby invited to register and submit comments concerns or issues regarding this project to the Environmental Consultant, Mr Julius Antonius at j88antonius@gmail.com or at cell 0818778855 on or before 30 September 2021. All I&APs are also cordially invited to a public meeting to be held on site on the 25th of September 2021 at 10:30AM

CALL FOR PUBLIC PARTICIPATION ENVIRONMENTAL IMPACT ASSESSMENT FOR PROPOSED DE VELOPMENT OF MARBLE AND GRANITE MINE

This notice serves to inform interested and affected parties that an application for the environmental clearance certificate will be launched with the environmental commissioner in terms of the Environmental Management Act (No.7 of 2007) and Environmental Regulations (2012) for the proposed activity:

Project: Proposed mineral prospecting activities on EPL 6118.

Location: The project is situated approximately 20 km south southwest



10 SEPTEMBER 2021 NAMIB TIMES 9

NOTICES & VACANCIES
NOTICES & VACANCIES

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CALL FOR PUBLIC PARTICIPATION NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT FOR THE DEVELOPMENT OF A SERVICE STATION ON ERF 7214 EXTENSION 5 KUISEBMUND WALVIS BAY

Notice is hereby given to all potential interested and Affected Parties (I&APs) that an application is made to the Environmental Commissioner in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4879 of 6 February 2012) for the following:

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Project Description: A service/fuel station with four dispensing pumps for petrol and diesel.

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Notice

Take notice that HEH Urban Nest Creation on behalf of the owner of Erf 800, Meersig, Walvis Bay is applying to the Walvis Bay Municipal Council and subsequently to the Urban and Regional Planning Board, respectively, for:

The rezoning of Erf 800, Meersig, Walvis Bay, from "Single Residential" with a density zoning of 1 dwelling per 500m² to "General Residential" with a density zoning of 1 dwelling per 300m².

Erf 800 is located in the Meersig extension, on the corner of Nossob Street and Oryx Street. Erf 800 Meersig is 878m² in extent and is zoned "Single Residential" with a density of 1 dwelling per 500m².

The proposed zoning will allow for existing developments to be brought in line with the current development of general residential units in terms of the Walvis Bay Zoning Scheme . Parking requirements in terms of the zoning schem are being met.

The Town Planning Scheme and Map particulars of the application may be inspected at the Walvis Bay Town Council, Town Planner's office.

Further take note that any individual objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Walvis Bay town Council: Town Planning section and the applicant in writing not later than **1 October 2021**.

Municipality of Swakopmund
Planning Section:
Town Planning

HEH Urban Nest Creations
P.O. Box 4453

Swakopmund Municipality
Procurement Management Unit
OPEN NATIONAL BID INVITATION

WALVIS BAY PRIVATE HIGH SCHOOL

VACANCY

FULL TIME TEACHER

- **PRIMARY PHASE: GRADE 1**
  A recognised 4-year tertiary teaching qualification with at least 3 years' experience in Junior Primary Education with Afrikaans as a Mother Tongue. Training and experience in Whole Brain Child development and ample knowledge of the Namibian Education system.

Commencement Date : 01 October 2021

The following documents must be submitted with letter of application:
Application for employment form 156043 and Health Questionnaire 156094, Curriculum Vitae, Certified copies of Academic and Professional Qualifications, Testimonials and Proof of Namibian Citizenship

Kindly submit applications to:
The Chairman
Walvis Bay Private High School
P O Box 567 Walvis Bay
Email: principal@wbphs.com

Closing Date : Friday, 17 September 2021

Please note, if you are not contacted within one week after the closing date, you have not been shortlisted. Only shortlisted candidates will be contacted.

VACANCY

REPACKAGE YOUR CAREER WITH
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Contact: Mandy
• T: 061 24 6136 • C: 081 895 8296 • E: mandy@confidentenamibia.com

NamazaINV NAMAZA INVESTMENT CC

CALL FOR PUBLIC PARTICIPATION
NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT FOR THE DEVELOPMENT OF A SERVICE STATION ON ERF 7214 EXTENSION 5 KUISEBMUND WALVIS BAY

Notice is hereby given to all potential interested and Affected Parties (I&APs) that an application is made to the Environmental Commissioner in terms of the Environmental.

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Project Name: Ondonga Service Station
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Project Description: A service/fuel station with four dispensing pumps for petrol and diesel.

In this respect, interested and affected parties (I&APs) are hereby invited to register and submit comments concerns or issues regarding this project to the Environmental Consultant, Mr Julius Antonius at j88antonius@gmail.com or at cell 0818778855 on or before 30 September 2021. All I&APs are also cordially invited to a public meeting to be held on site on the 25th of September 2021 at 10:30AM

CALL FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR PROPOSED DEVELOPMENT OF MARBLE AND GRANITE MINE

This notice serves to inform interested and affected parties that an application for the environmental clearance certificate will be launched with the environmental commissioner in terms of the Environmental Management Act (No.7 of 2007) and Environmental Regulations (2012) for the proposed activity:

Project:
Proposed mineral prospecting activities on EPL 6118

VACANCIES & NOTICES

VACANCIES & NOTICES

VACANCY

Design and Property Project Management Consultant

North Quay Properties (Pty) Ltd, invites all interested and qualified candidates looking for an exciting and challenging role as a senior design and property project management consultant

Role outline:

- Identifying , sourcing and securing property development investment opportunities in Namibia and South Africa, including the design and risk assessment thereof.
- Experience in guiding property developing architectural and interior design - create and lead a team to achieve this.
- Minimum 15 years' experience in the industry, experience in creating and leading a team.
- Any corporate or international experience in the above is preferred.
- Position will be project based.

A detailed CV with supporting documents (Limited to 2 MB) should be forwarded to northquayrecruit@gmail.com.

Only shortlisted candidates will be contacted.

Closing date for applications: 10 October 2021

Nell's Hydraulics Hose and Fittings requires the services of the following

Hydraulic Pipe Fitters (x 4) & Hydraulic Fitter Supervisor

Pipe Fitter duties:

1. Make up of new hydraulic pipes steel and rubber hoses, crimp sleeves
2. Fill in job cards and requisitions
3. Work to mine safety standards

Supervisor duties:

1. Manage on site personal
2. Attending meetings
3. Re-order used spares

Please mail your CV's to
fiona@hydrhose.com

Closing Date: Wed. 29 September 2021

NamazaINV NAMAZA INVESTMENT CC

CALL FOR PUBLIC PARTICIPATION
NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT AND CONSENT USE FOR THE DEVELOPMENT OF A SERVICE STATION ON ERF 7214 EXTENSION 5 KUISEBMUND WALVIS BAY

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AEGIR Marine

JOB OFFER (AEGIR-MARINE AFRICA)
SERVICE ENGINEER

AEGIR-MARINE AFRICA IS LOOKING FOR A SERVICE ENGINEER

WE ARE HIRING

SERVER ADMINISTRATOR

JOB DESCRIPTION

- Design, configure, select, deploy and maintain server solutions for the enterprise; both virtual and physical.
- Interact with employees regarding server centric projects and solutions including needs for storage.
- Manage and select server vendors, contractors and consultants.
- Troubleshoot and monitor server related support issues. Familiarity with diagnostic tools applicable to a standard server environment.

Annex 3: Registration & Comments Form

Mr. Julius Antonius
j88antonius@gmail.com
+264 (0) 81 877 8855

P.O. Box 8857
Bachbrecht
Windhoek

NamazaINV

LIST OF INTERESTED AND AFFECTED PARTIES

The following individuals registered as I&APs in the EIA for the development of Ondonga Service Station ~~at Onankali village~~ AT ERF 7914 - KARMAS HOCHLAND STR - KUISEBMUND

	Name	Organization	Date of registration
1.	ABISAI KONSTANTINUS	NAMBAZA	20 SEPTEMBER 2021
2.	Petrina Nanamene	Ndatara	20 September 2021
3.	Nangula Amatsi	Mun of Walvis Bay	20 Sep 2021
4.	Dennis Boson	Mun. of Walvis Bay	20 Sept. 2021
5.	Colin RICKERTS	MUNICIPALITY OF WALVIS BAY	20 Sept. 2021
6.	Jesaya N. Andreas	Municipality of Walvis Bay	20 September 2021
7.	Lovisa Hitukula	"	20 September 2021
8.	Elizabeth Nauca	Municipality of Walvis Bay	20/09/2021
9.	[illegible]	MAWF	"
10.	Julius Antonius	Seanton Inv. CC	info.seantonCC@gmail.com

Annex 4: Proponent Details

Ondonga service station is 100% owned and operated by Nambaza Investments cc. Nambaza Investments cc (shortly Namaza) is a Namibian SME that specializes in property development, energy development & retailing, and general retailing. "Nambaza"is derived from the Oshiwambo word "ombaza" which refers to cowhide or leather in English. The symbolic meanings of a cowhide in many African cultures is strength, perseverance and commitment; values we strongly aspire to in our company.

Nambaza is 100 percent Namibian; owned and operated by previously disadvantaged Namibians. Our vision is to contribute to the industrialization of Namibia and to help the realization of Vision 2030 in the respective sectors of our specialization.

Nambaza was founded by Dr. Abisai Konstantinus, as a general works and construction contractor in 2009. Over the years, the group has taken on many challenging projects and accumulated skills; know-how and experiences in logistics, property development, design and build solutions, energy, maritime and project management.

Today, Nambaza has expanded into the transport and retailing of fuel (both on land and at sea), with planned operations in Oshikoto and Erongo regions. The company has recently submitted intentions to go into the general retail industry, with planned operations in Swakopmund.

Our objective is to provide our clients with "I am assured" experience when we are chosen as business partners. Our emphasis on clear communication and follow-through procedures ensures that client's objectives are top priority in our business conduct. We take particular pride in our delivery, thus our clients can always be assured that only the most qualified people are serving them, all the time.

In the communities we practice, we strive to return to society what we earn, to benefit the communities wherein we work, and to be socially and environmentally responsible.

Company Information: Nambaza Investments cc
Registration No.: cc/2009/3926
Incorporation date: June 2009
Address: P.O. Box 7227, Swakopmund, Namibia
Tel: 064 400 550
Email: tatejappy@me.com

Principle Activities: construction, energy (solar and fossil fuels), property development.

Directors: Abisai Konstantinus, Rudhi Wanamene, Ipupa Kasheeta.
Logo:

Annex 6: Credentials of Environmental Practitioner

Julius Antonius

Occupational, Health, Safety, Environment (Grad SAIOSH)

Phone +264 (0) 81 877 8855

ID Number 88021400242

E-mail j88antonius@gmail.com

License Code B (50010000C6GX)

Date of birth 14-02-1988

Citizenship Namibian

LinkedIn
https://www.linkedin.com/in/julius-antonius

Experienced and knowledged health and safety professional in a current leadership role at a world renowned uranium mining operations of Dundee Precious Metals, familiar with all required industrial safety procedures with nearly 10 years of working experience in Environment, Health & Safety, is prepared to service and facilitate effective HSE coordination through the organisation. Has a history and a proven track record of accident & injury prevention, investigations and critical risk management. A candidate who combines loyalty and dedication with strong attention to details and highly intellect in decision making, leadership and management.

Experience

02-2019 - present

Manager - Safety

Dundee Precious Metals

Responsibilities:

- Prepare and enforce policies to establish a culture of health and safety
- Evaluate practices, procedures and facilities to assess risk and adherence to the regulations
- Conduct training and presentations for health and safety matters and incident prevention
- Monitor compliance to policies and laws by reviewing employees work and behaviors and operations
- Inspect equipment and machinery to observe possible unsafe conditions
- Investigate accidents or incidents to discover causes
- Recommend solutions to issues, improvement opportunities or new prevention measures
- Conduct Performance Management System and Appraisal to the Safety Officers
- Financial/budget management
- Report on health and safety awareness, issues and statistics
- Review monthly inspection reports
- Review safety performance (Injury frequency rates)
- Recommend and implement employee targeting behavior change campaigns
- Monitor site safety compliance
- Contractor Safety management

04-2017 - 01-2019

HSE Advisor – Production and Asset Maintenance

Rio Tinto - Rossing Uranium Limited

Responsibilities:

- Safety monitoring, analyzing and risk identification
- Incident Investigation
- Providing a specialized advisory role to Rossing employees & contractors
- Planning technical aspects of OHSAS 18001 and Rio Tinto Safety Standards
- Monitoring compliance and resolution of non-conformances as per the regulations
- Providing specialist guidance and advise to line management
- Ensuring incident dockets are filled in accurately and captured onto the system
- Performing HSE inspections and leadership interactions
- Coordinating development & maintenance of an integrated HSE hazard and risk register
- Conducting comprehensive HSE audits and circulate reports
- Reviewing HSE management systems
- Monitoring adequacy of codes of conduct in safety, health & environment
- Coordinating HSE information flow between respective departments

- Identifying HSE training needs
- Activity & Program budgeting and costing
- Developing and reviewing Safe Working Procedures
- Perform roles of management appointment HSE representative
- Performing post contract evaluations on contracts awarded to check for compliance

07-2012 - 03-2017 **Section Head:** Occupational Health, Environment & Safety

NIP (Ltd) Namibia Institute of Pathology

» **Responsibilities:**

- Safety monitoring, analyzing and risk identification and provide corrective actions & mitigation measures
- Conducted Environmental Impact Assessment,
- Injury and emergency management on site
- Strategic and departmental budgeting,
- ISO 17025, 15189 accreditation systems with SANAS
- Performance Management System implementation (PMS)
- Training of Safety Officers and safety representatives
- Internal Safety compliance audits
- Hazard identification and risk profiling
- ISO 14001 & OHSAS 18001 management systems implementation
- Develops, implements and maintains NIP Ltd safety policies and manuals
- Ensures the appointment of functioning workplace Safety Representatives and committees at all branches and laboratories
- Provides assistance to all supervisors regarding legal requirements relating to Health and Safety and on the implementation of policies and procedures
- Ensures that compliance with requirements for a safe working environment is maintained to avoid or contain health risks.
- Ensures implementation of preventative or corrective action in case of non-compliance,
- Performs risk assessments by investigating all environmental health and safety factors in the laboratories,
- Provides guidance to supervisors to ensure accurate reporting of work related injuries and occupational diseases
- Ensures access to reliable emergency and health care service providers in case of occupational injuries or diseases.
- Develops and ensures the implementation of procedures to manage medical incapacity and unfitness for work
- Attends all relevant meetings, participates in decision making relevant to departmental issues and provides supervisor with regular feedback and reports on activities
- Facilitate annual medical screening & surveillance
- Approve and review alcohol & drug policy
- Develop both HSE Policy

11-2010 - 06-2012 **Practitioner:** OSHE & Wellness

Roads Authority - Namibia

» **Responsibilities:**

- Health and safety inspections on regular basis
- Giving safety inductions to new employees and refresher trainings on safety
- Giving health and awareness sessions to employees
- Ensure a workplace is free from serious identified hazards and comply with standards, rules and regulations developed under the OHSAS 18001 and 18000.
- Examine workplace conditions to make sure they conform to applicable OHSAS 18001 and 18000 standards.
- Ensure that all the employees coming on board undergone medical examinations and safety inductions.
- Giving social welfare counseling to employees
- Facilitate annual medical screening & surveillance
- Give wellness and health talks
- Conduct peer educators training on HIV & Communicable diseases

- Liaise with medical aid for subsidized rates and members contribution
- Conduct workplace health weeks and monthly health topics
- Conduct wellness activities
- Conducting safety inspections
- Reviewing of companying OSHE Policy.
- Conduct elections for safety representatives for the workstations.
- Compile Health & Safety quarterly reports
- Co-ordinate fire and emergency drills
- Conduct accident and incident investigations.
- Developed Company's Environmental Policy Statement
- Ensuring that the contractors comply with the OSHE requirements.
- Assist employees in obtaining immediate medical treatment in case of injuries or accidents.
- Participate in the review processes of the policies related to safety, health, and environment and employee welfare
- Develop both HSE & Wellness Policy

01-2009 - 12-2010 **Contract Officer:** Occupational Health, Safety, Health, Environment & Wellness

Telecom Namibia LTD

» Responsibilities:

- Health and safety Inspections on regular basis
- Giving health education to employees
- Conducted safety inspections in the company premises and report alleviations.
- Attended to emergency accidents and gave first aid.
- Conducted Health sessions to employees on TB and Alcohol and Drugs Abuse.
- Ensured safety compliance within the company
- Risk assessments
- Health, Safety and Environmental audits
- Give wellness and health talks
- Conduct peer educators training on HIV & Communicable diseases
- Conduct workplace health weeks and monthly health topics

Education

09-2016 - 05-2018 **University of Portsmouth, United Kingdom, London - MSc. Occupational Health & Safety Management**

Principal subject:

» Risk Management In Practice
» Construction Health And Safety
» Research Management And Dissertation
» Ergonomics
» Management Essentials For Health And Safety
» Evaluation And Control Of The Work Environment

01-2011 - 12-2011 **Metropolia University of Applied Sciences, Finland, Helsinki - Postgraduate Environmental Engineering (Occupational Health, Safety & Environmental Management)**

Principal subject:

» Environmental Engineering
» Working in international projects
» Research Methods
» English Communication Skills
» Water treatment technology

01-2008 - 12-2011 **Polytechnic of Namibia. (NUST) Windhoek, Namibia Hons. Degree Environmental Health Science**

Principal Subjects:

» Environmental Management 1, 2, 3 & 4
» Social Studies 1A & 1B
» Building Construction 1 & 2
» Microbiology 1B & 2A
» Health Physics 1A
» Health Chemistry 1B
» Health Statistics 1A
» Food and Meat Hygiene 2 & 3
» Epidemiology 2 & 3
» Occupational Health and Safety 2 , 3 & 4
» Management Practice 2, 3 & 4
» Research Methodology 4

Skills

1. Extensively familiar with mandated safety standards & procedures for most industrial disciplines, from civil engineering and construction, health care and energy supplies and mineral mining. — *Advanced*
2. Confident in leading and managing teams, ensuring all employees follow instructions precisely as per the standards.
3. Excellent communication skills, both presentation, written and oral.
4. Strong attention to small details that may create hazardous and risky conditions.
5. Organized, familiar with administrative responsibilities, and decision making abilities.

Software

1. SAP — Advanced
2. OHASIS — Expert
3. Prospect — Advanced
4. MS Excel & EpiNet — Advanced

Certificates

04-2019	ICAM Champion and Lead Investigator Certification
08-2015	Advance Microsoft Excel 2013 (General Technology Consulting cc)
02-2014	SHEQ Auditing Course NQF 5 - (SHEQ Auditing Activities) NOSA
09-2013	SAMTRAC (NQF5) NOSA
02-2013	Introduction to SAMTRAC (NQF 4)

02-2013	Preliminary Incident Investigation (NQF 2) NOSA
02-2013	Applying Safety Health & Environmental Principles (NQF 2) NOSA 2013
02-2013	SHE Representatives Functions (NQF 2) NOSA

Conferences

08-2014	XX World Congress on Safety and Health at Work 2014 (Global Forum for prevention) ILO (Frankfurt, Germany)
08-2014	07th International Summer School Occupational Health Crossing Borders (Munich, Germany)
04-2013	15th Annual African Wellness & HIV/AIDS Conference (Johannesburg, South Africa)

Courses

05-2014 - 05-2014	Employee Health & Wellness Programme (ESAMI)
10-2012 - 10-2012	Wellness Peer Education Training (NABCOA)

References

1. Benedicta Uris, Dundee Precious Metals Tsumeb - Tel: 067 2234139
Director: Health, Safety & Environment

2. Edwin Tjiriange, Rossing Uranium - Rio Tinto Cell: 0812773437
Manager: Mining Maintenance and HSE