APP 006825

STORAGE AND HANDLING OF INDUSTRIAL CARGO AND CHEMICALS ON ERF 5184 AND 5187 IN EXTENSION 14, WALVIS BAY

ENVIRONMENTAL ASSESSMENT SCOPING REPORT

Assessed by:

Assessed for:

December 2025

Project:	**Environmental Scoping Assessment and Environmental Management Plan for the Storage and Handling of Industrial Cargo and Chemicals on on Erf 5184 and 5187 in Extension 14, Walvis Bay**	
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Prepared for: **(Proponent)**	Pindulo Logistics (Pty) Ltd P O Box 81588 Windhoek	
Lead Consultant	Geo Pollution Technologies (Pty) Ltd PO Box 11073 Windhoek Namibia	TEL.: (+264-61) 257411 FAX.: (+264) 88626368
Main Project Team:	**André Faul** (B.Sc. Zoology/Biochemistry); (B.Sc. (Hons) Zoology); (M.Sc. Conservation Ecology); (Ph.D. Medical Bioscience) **Ernest Pelser** (B.Sc. Zoology/Microbiology); (B.Sc. (Hons) Environmental Science); (M.Sc. Environmental Science)	
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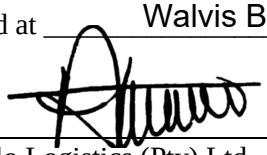
Report Approval	 **André Faul** Conservation Ecologist	

I Armand Eksteen acting as the Proponent's representative (Pindulo Logistics (Pty) Ltd), hereby approve this report and confirm that the project description contained in herein is a true reflection of the information which the Proponent has provided to Geo Pollution Technologies. All material information in the possession of the Proponent that reasonably has or may have the potential of influencing any decision or the objectivity of this assessment is fairly represented in this report.

Signed at Walvis Bay, Namibia on the 14th day of January 2026 ~~2025~~.



Pindulo Logistics (Pty) Ltd

2018/2853
Company Registration

EXECUTIVE SUMMARY

Pindulo Logistics (Pty) Ltd (the Proponent) requested Geo Pollution Technologies (Pty) Ltd to conduct an environmental scoping assessment for their proposed operations on Erf 5184 and 5187 in Extension 14, located in the Light Industrial Area of Walvis Bay. The Proponent plans to conduct back-of-port operations at the facility, including the storage, handling and transport of various goods for clients. The facility will receive and handle a range of metals and industrial cargo, which may include copper (including copper concentrates and cathodes), manganese, nickel, lithium, chrome, zinc, and cobalt, as well as associated industrial products and chemicals handled in the logistics chain. For the purposes of this assessment, these products are collectively referred to as "metals and industrial cargo".

This assessment examines the proposed storage and handling processes for the metals and industrial cargo, and the overall day-to-day operational activities. The study aims to identify and assess all environmental, safety, health and socio-economic impacts associated with the development and operations of the facility. Relevant environmental data has been collected through secondary sources and a reconnaissance site visit, allowing the identification of potential environmental and social impacts, which are addressed in this report.

Given the nature of the proposed operations, various impacts on the surrounding environment are anticipated. These impacts can be both positive and negative. Consequently, it is recommended that environmental performance be regularly monitored to enhance positive impacts and prevent or mitigate negative ones, ensuring regulatory compliance and implementing corrective measures as necessary.

The facility's operations will support the movement of metals and industrial cargo within the Southern African Development Community (SADC) region and will contribute to the logistics capacity of Walvis Bay and Namibia at large. Various permits and levies associated with the transport and handling of cargo will be paid. The trucking industry will support multiple service centres, purchase tyres and fuel, and truck drivers will patronise local businesses for food and goods. Additionally, the facility will create jobs, boosting the local workforce's spending power. The proposed warehouse operations may also attract further investment and business opportunities in the town, and various subcontractors may be engaged to supply specific services and goods to the facility.

The primary concerns related to the facility's operations include potential health impacts associated with metals and industrial cargo (particularly dust where products are handled in dusty forms), increased traffic and noise, fire hazards, and visual impacts (e.g. dust discolouration if material is not adequately contained). However, these issues can be mitigated through preventative measures and adherence to relevant best practice standards and guidelines. The Proponent intends to store and handle products inside the enclosed warehouse, which is an important control to prevent dust escape and weather-related degradation of cargo. Bulk cargo will also be handled, and may, where required, be transferred into bulk bags and/or suitable containers for storage and onward transport. Product separation and compatibility controls will be implemented based on the relevant MSDSs, and loads entering and leaving the facility should be adequately covered or otherwise contained. Noise levels should comply with the health and safety regulations outlined in the Labour Act and/or World Health Organization standards for community noise. By employing local contractors and workers and implementing suitable training and awareness programmes, the positive socio-economic impacts can be maximised while mitigating negative ones.

The environmental management plan (EMP) included in section 9 of this document should be used as a reference during all phases of the facility's operations. All monitoring and records should be documented in a report to ensure compliance with the EMP. Parties responsible for any transgressions of the EMP should be held accountable for any necessary rehabilitation. A health, safety, environment, and quality policy, or a similar document, should be used alongside the EMP. Operators and responsible personnel must be trained on the contents of these documents. Municipal or national regulations and guidelines must be adhered to and monitored regularly as outlined in the EMP.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
DWA	Department of Water Affairs
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No 7 of 2007
EMP	Environmental Management Plan
EMS	Environmental Management System
GPT	Geo Pollution Technologies
HIV	Human Immunodeficiency Virus
IAPs	Interested and Affected Parties
IBL	Internal Boundary Layer
IUCN	International Union for Conservation of Nature
m/s	Meter per second
MABL	Marine Atmospheric Boundary Layer
mbs	Meters below surface
MEFT	Ministry of Environment, Forestry and Tourism
mm/a	Millimetres per annum
mm/a	Millimetres per annum
MSDS	Material Safety Data Sheet
NaCl	Sodium chloride
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PBL	Planetary Boundary Layer
PEL	Permissible Exposure Level
PM	Particle matter
PPE	Personal Protective Equipment
ppm	Parts per million
REL	Recommended Exposure Level
SADC	Southern African Development Community
SAH	South Atlantic High
SANS	South African National Standards
SO_2	Sulfur dioxide
SOLAS	Safety of Life at Sea
TIBL	Thermal Internal Boundary Layer
TWA	Time weighted averages
WHO	World Health Organization

GLOSSARY OF TERMS

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" alternative 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 socio-economic 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.

Gangue Material – unwanted material that surrounds, or is closely mixed with, a wanted mineral in an ore deposit or minded ore.

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.

Metal Ore – For purposes of this document "metal ore" refers to any one or combination of copper, manganese, nickel, lithium, chrome and zinc, as well as cobalt hydroxide. Copper can also include copper concentrates and cathodes.

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, Forestry & 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).

1 BACKGROUND AND INTRODUCTION

Geo Pollution Technologies (Pty) Ltd was appointed by Pindulo Logistics (Pty) Ltd (hereafter referred to as the Proponent) to prepare an environmental scoping assessment (EIA) and environmental management plan (EMP) for proposed storage and handling of industrial cargo and chemicals on erven 5184 and 5187, Extension 14, Walvis Bay (Figure 1-1). The Proponent plans to utilise the property for storage and handling of metals and metal ores, industrial cargo and chemicals. A complete commodities list can be seen in Table 4-1.

General project components assessed in this EIA include construction-related activities (upgrades and ongoing maintenance), operations, and the potential decommissioning phase. Typical operational activities will involve the receipt, temporary storage and distribution of cargo, including break-bulk cargo (e.g. bagged, bundled, palletised or crated goods), bulk cargo, and containerised products (e.g. shipping containers or liquids such as acids stored in intermediate bulk containers (IBCs)). Routine maintenance, inspections and general housekeeping form part of the day-to-day operations.

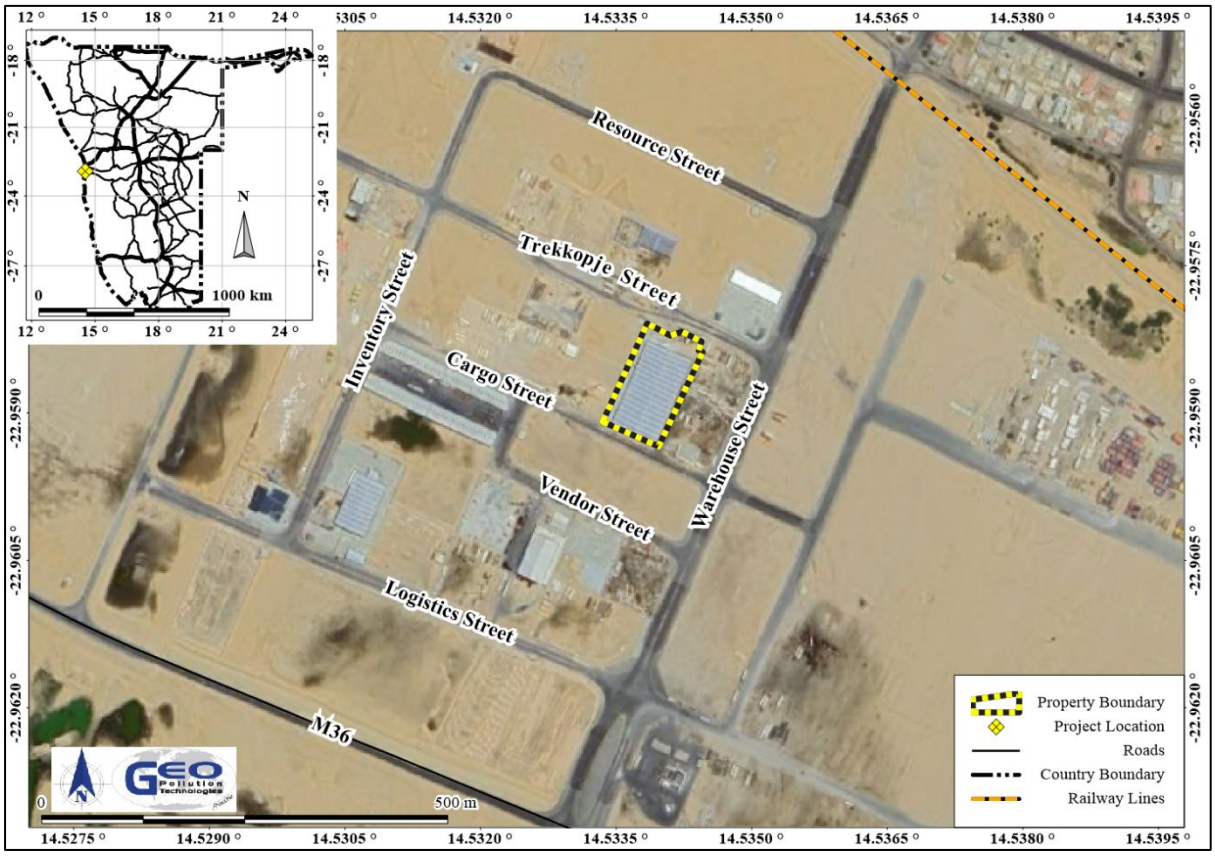

Figure 1-1 Project location

A risk assessment was undertaken to determine the potential impacts of the construction, operational and possible decommissioning phases associated with the project on the environment. The environment being defined in the Environmental Assessment Policy and Environmental Management Act (EMA) as "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, paleontological or social values".

The environmental assessment was conducted to apply for an environmental clearance certificate in compliance with Namibia's Environmental Management Act (Act No 7 of 2007).

Project Justification – The Port of Walvis Bay has established itself as one of the most reliable and efficient ports of call in southern Africa. It is thus in a favourable position to serve not only Namibia, but also landlocked countries like Botswana, Zimbabwe, Zambia and the Democratic Republic of the

Congo. Recent years have seen tremendous growth in the demand for port services for the export and import of, among others, metal ores and industrial cargo, mainly associated with the mining industry. By expanding their storage capacity, they can increase the supply of cargo to the local and regional mining industries. This aligns with the Walvis Bay Corridor Group's aims of developing and promoting Namibia as the leading trade route for the Southern African Development Community (SADC). This will be achieved through established corridor routes connecting the Port of Walvis Bay with the Namibian interior and its neighbours and beyond. The main benefits of the project include:

- Revenue generation for Walvis Bay and Namibia as a whole;
- Reliable export of mining products from mining sectors of Namibian and SADC countries;
- Reliable import of industrial cargo into Namibia and SADC countries for mainly the mining sector;
- Employment, education and skills transfer;
- Diversification of economic activity;
- Potential inducement of additional investments and business opportunities.

2 SCOPE

The scope of the environmental assessment is to:

1. Determine the potential environmental impacts emanating from the proposed activities.
2. Identify a range of management actions which could mitigate the potential adverse impacts to acceptable levels.
3. Comply with Namibia's Environmental Management Act (2007).
4. Provide sufficient information to the Ministry of Environment, Forestry and Tourism (MEFT) and related authorities to make an informed decision regarding the proposed operations, construction activities and possible decommissioning of the facility.

3 METHODOLOGY

The following methods were used to investigate the potential impacts on the social and natural environment due to the operations of the facility:

1. Baseline information about the site and its surroundings was obtained from existing secondary information as well as from primary information obtained during a reconnaissance site visit.
2. As part of the scoping process to determine potential environmental impacts, interested and affected parties (IAPs) were consulted about their views, comments and opinions and these are put forward in this report.
3. Based on gathered information and public and stakeholder consultation, an assessment of potential impacts was conducted and a management plan prepared.

4 FACILITY OPERATIONS AND RELATED ACTIVITIES

The Proponent's planned on-site operations focus on the storage and handling of metals and industrial cargo on erven 5184 and 5187 with a combined area of 8,255 m², of which about 5,600 m² comprises under-roof warehouse space. The sections that follow describe the existing infrastructure and the planned operational activities to be undertaken on the site.

4.1 INFRASTRUCTURE

The facility comprises a single warehouse building (Photo 4-1 and Photo 4-2), with a security office and ablution facilities. The external yard areas are fully interlocked with heavy duty bricks (Photo 4-5). Inside the warehouse, the floor is concrete, with joints sealed (Photo 4-4) at interfaces to support effective housekeeping and to limit the ingress of liquids and debris into cracks.

The warehouse is fitted with four sliding side doors along the western part of the facility to facilitate the movement of cargo between vehicles and the internal storage area. In addition, the building has two drive-through heavy motor vehicles (HMV) access doors, one on the northern

end and one on the southern end, allowing HMVs to enter the warehouse for direct loading and offloading and to exit through the opposite side where required.

Lighting within the warehouse is provided by LED fixtures, supplemented by clear roof panel sections (Photo 4-3) that allow natural daylight into the building during daytime hours, improving visibility and reducing reliance on artificial lighting.

Photo 4-1 Outside view of warehouse and northern warehouse door

Photo 4-2 Outside HMV offload area

Photo 4-3 Clear panels on the warehouse roof

Photo 4-4 Sealed joints in the concrete floor

Photo 4-5 Heavy duty interlocks on the exterior of the warehouse

Photo 4-6 Southern entrance gate

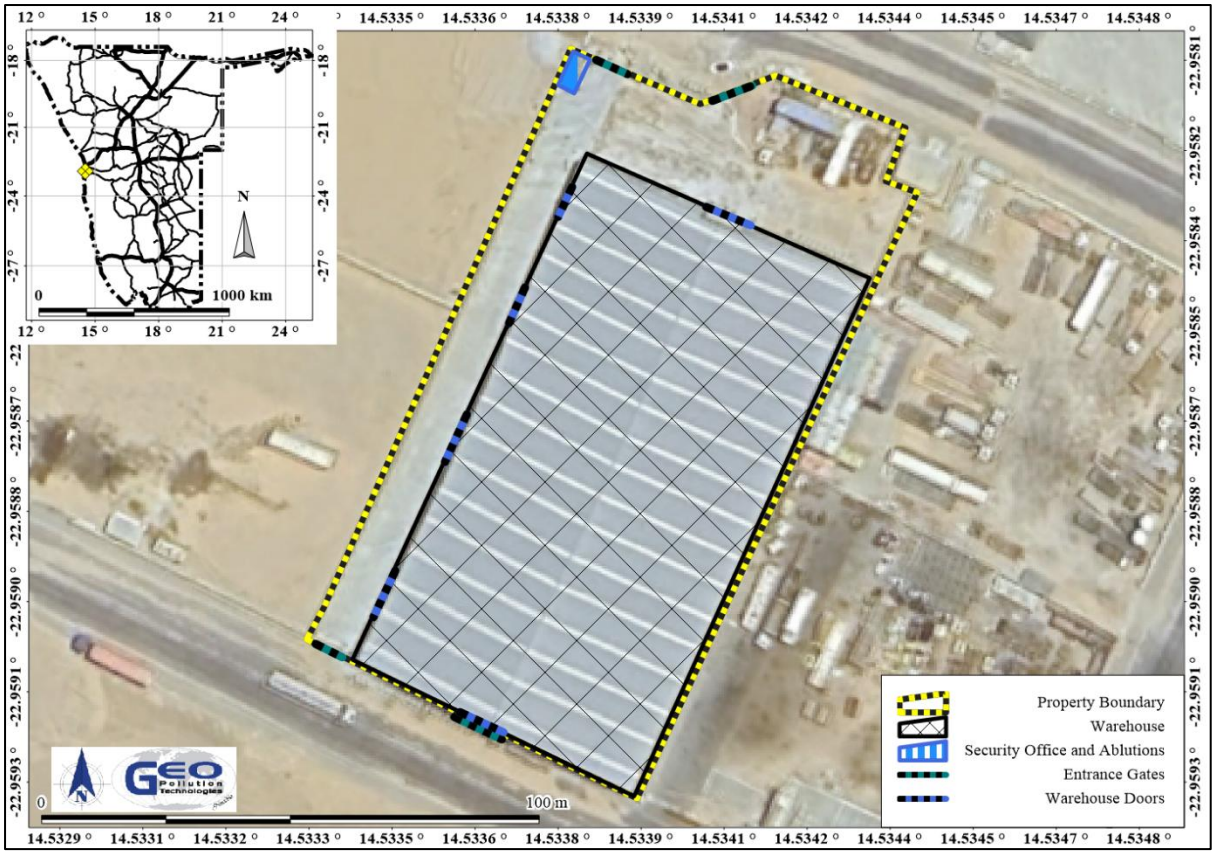

Figure 4-1 Proposed site layout

4.2 PLANNED OPERATIONAL ACTIVITIES

The warehouse will function as a receipt, storage and handling facility for import and export metals, chemicals, acids and industrial cargo. The following is a short description of the proposed operations.

4.2.1 Cargo Types

The products listed in Table 4-1 are planned to be stored and handled at the facility. It is possible that handling and storage of only some of the products will ultimately realise, but provision is made in this assessment for all products mentioned.

Hazard and health information for pure or near-pure elements and compounds is generally readily available. However, evaluating the potential health and environmental risks associated with metal ores and concentrates is more complex, as these materials typically comprise a mixture of the target metal and various gangue minerals. In practice, the level of potential exposure will depend on several factors, including:

- Receptor type and location: workers inside the warehouse may be exposed during loading/offloading activities, whereas neighbours or passers-by would only be exposed if material is released outside the warehouse (e.g. a torn bag during handling).
- Volume and particle size of wind-dispersible dust associated with the material.
- Concentration of hazardous constituents within the dust fraction.
- Wind strength and direction, which influence dispersal potential should material escape containment.

Table 4-1 summarises key characteristics of the cargo types proposed for handling, including indicative health impacts, environmental hazards, incompatibilities, flammability considerations and occupational exposure limits. The table is intended as a screening-level guide and is not exhaustive. For all products, the applicable material safety data sheet (MSDS) requirements will be treated as the minimum standard for storage, segregation, handling and

emergency response. Where a product-specific MSDS is not available for a particular ore or concentrate, guidance should be obtained from the source mine, based on their standard operating procedures and environmental management measures.

Although the Health and Safety Regulations under the Namibian Labour Act provide exposure limits (largely aligned to Occupational Safety and Health Administration permissible exposure limits), some limits are likely outdated and higher than current international good practice. For this reason, National Institute for Occupational Safety and Health recommended exposure limits (NIOSH RELs) are provided in Table 4-1 where available. Where no NIOSH REL exists, the relevant Namibian limit or permissible dust limits are used as an indicative benchmark.

In addition to potential ore and product dust impacts, vehicle exhaust emissions associated with frequent HMV movements may contribute to localised air quality deterioration. Exhaust gases typically comprise nitrogen, carbon dioxide, water vapour and oxygen, with a smaller fraction of pollutant emissions (including carbon monoxide, hydrocarbons, nitrogen oxides, sulphur dioxide and particulate matter) (Resitoglu and Altinisik, 2015). In Walvis Bay, these emissions are expected to disperse relatively quickly under windy conditions, but may accumulate during periods of calm or low wind.

Beyond metal content, respirable dust (PM_{10}) and fine particulate matter ($PM_{2.5}$) can pose health risks if not effectively contained. Where present, silicates and asbestos fibres are of particular concern due to their carcinogenicity. This reinforces the need for strict dust prevention measures (including containment and housekeeping) and the mandatory use of suitable respirators by workers operating in dust-prone areas within the warehouse.

Table 4-1 Cargo to be stored and handled on Erf 5184 and 5187

Cargo Type	Health Impacts	Environmental Hazard	Incompatibility	Flammability	Exposure Limits*
Copper Concentrate	Toxic if ingested or inhaled, causes skin and eye irritation.	Toxic to aquatic life with long-lasting effects.	Strong oxidizing agents, acids.	Not flammable	NIOSH REL 1 mg/m³ (as copper)
Copper metals (cathodes, blisters, anodes)	Toxic if ingested or inhaled, causes skin and eye irritation.	Toxic to aquatic life with long-lasting effects.	Strong oxidizing agents, acids.	Not flammable	NIOSH REL 1 mg/m³ (as copper)
Iron Ore	May cause mechanical irritation to the skin and eyes.	Not considered toxic to the environment.	None identified.	Not flammable	No specific limit
Cobalt	Very toxic, especially if inhaled; carcinogenic.	Very toxic to aquatic life.	Keep away from acids, bases, oxidizing agents.	Fine dusts may ignite spontaneously.	NIOSH REL 0.05 mg/m³
Zinc	May cause respiratory tract irritation.	Not considered toxic but can affect aquatic environments.	Strong acids and alkalis.	Not flammable	NIOSH REL 5 mg/m³ (as zinc oxide)
Lithium	Causes skin and eye irritation, respiratory tract irritation.	No specific hazard identified.	Strong oxidizing agents.	Not flammable	OSHA PEL 5 mg/m³
Nickel	Potential carcinogen, may cause skin and respiratory irritation.	Harmful to aquatic life with long-lasting effects.	Strong acids and oxidizing agents.	Not flammable	NIOSH REL 0.015 mg/m³
Chrome	Toxic if inhaled, causes skin and eye irritation.	Harmful to aquatic life.	Strong oxidizing agents.	Not flammable	NIOSH REL 0.5 mg/m³
Coal	May cause respiratory irritation, carcinogenic potential.	Can affect aquatic life.	Keep away from strong oxidizers.	Combustible under certain conditions.	No specific limit
Anthracite	May cause respiratory irritation, carcinogenic potential.	Can affect aquatic life.	Keep away from strong oxidizers.	Combustible under certain conditions.	No specific limit
Coking coal	May cause respiratory irritation, carcinogenic potential.	Can affect aquatic life.	Keep away from strong oxidizers.	Combustible under certain conditions.	No specific limit

Cargo Type	Health Impacts	Environmental Hazard	Incompatibility	Flammability	Exposure Limits*
PetCoke (petroleum coke)	May cause respiratory irritation.	Can affect aquatic life.	Strong oxidizing agents.	Combustible under certain conditions.	No specific limit
Manganese	Toxic if inhaled or ingested, potential neurotoxin.	Harmful to aquatic life.	Strong oxidizing agents, acids.	Flammable solid.	NIOSH REL 1 mg/m^3
Tin	May cause respiratory irritation.	Not considered toxic to the environment.	Strong acids and alkalis.	Not flammable	No specific limit
Cement	Causes skin and eye irritation, may cause respiratory irritation.	Not considered toxic to the environment.	Keep away from acids.	Not flammable	No specific limit
Polymers	Causes skin and eye irritation, may cause respiratory irritation.	No specific hazard identified.	Strong oxidizing agents.	Not flammable	No specific limit
Polyethylene HDPE / LDPE	Causes skin and eye irritation, may cause respiratory irritation.	No specific hazard identified.	Strong oxidizing agents.	Not flammable	No specific limit
Polypropylene	Causes skin and eye irritation, may cause respiratory irritation.	No specific hazard identified.	Strong oxidizing agents.	Not flammable, but dust may form combustible mixtures.	No specific limit
PVC Resins	Causes skin and eye irritation, may cause respiratory irritation.	No specific hazard identified.	Strong oxidizing agents.	Not flammable	No specific limit
Ammonium phosphate MAP & DAP (fertilizer) / PotAsh	Causes skin and eye irritation, may cause respiratory irritation.	Harmful to aquatic life.	Strong acids and bases.	Not flammable	No specific limit
Ammonium sulphate (salt)	Causes skin and eye irritation, may cause respiratory irritation.	Harmful to aquatic life.	Strong acids and bases.	Not flammable	No specific limit
Caustic Soda	Causes severe skin burns and eye damage.	Harmful to aquatic life.	Strong acids.	Not flammable	NIOSH REL 2 mg/m^3
Flocculant	Causes skin and eye irritation, may cause respiratory irritation.	No specific hazard identified.	Strong acids and oxidizing agents.	Not flammable	No specific limit

Cargo Type	Health Impacts	Environmental Hazard	Incompatibility	Flammability	Exposure Limits*
Sulphur	Causes skin and eye irritation, may cause respiratory irritation.	Toxic to aquatic life with long-lasting effects.	Strong oxidizing agents, chlorates, nitrates.	Flammable and explosive if significant quantities of dust are airborne.	NIOSH REL 15 mg/m^3 (hydrogen sulphide, 10 minutes)
Soda Ash	Causes skin and eye irritation, may cause respiratory irritation.	Harmful to aquatic life.	Strong acids.	Not flammable	No specific limit
Sodium Bicarbonate	May cause skin and eye irritation.	No specific hazard identified.	Strong acids.	Not flammable	No specific limit
Calcium Carbonate	Causes eye irritation, may cause respiratory irritation.	Not considered toxic to the environment.	Strong acids.	Not flammable	Namibian 10 mg/m^3 (as a fume)
Calcium Chloride	Causes skin and eye irritation, may cause respiratory irritation.	Harmful to aquatic life.	Strong acids.	Not flammable	No specific limit
Magnesium Chloride	Causes skin and eye irritation, may cause respiratory irritation.	Harmful to aquatic life.	Strong acids.	Not flammable	No specific limit
Hematite	May cause mechanical irritation to the skin and eyes.	Not considered toxic to the environment.	None identified.	Not flammable	No specific limit
Barite	May cause mechanical irritation to the skin and eyes.	Not considered toxic to the environment.	None identified.	Not flammable	No specific limit
Hydrochloric Acid	Causes severe skin burns and eye damage, respiratory irritation.	Harmful to aquatic life.	Strong bases, oxidizing agents.	Not flammable	NIOSH REL 5 ppm
Creosote	Causes skin and eye irritation, may cause respiratory irritation; potential carcinogen.	Harmful to aquatic life.	Strong acids and oxidizing agents.	Combustible under certain conditions.	NIOSH REL 0.2 mg/m^3 (as benzene-soluble aerosol)
Heavy Furnace Oil	Causes skin and eye irritation, may cause respiratory irritation.	Harmful to aquatic life.	Strong acids and oxidizing agents.	Combustible under certain conditions.	No specific limit

Cargo Type	Health Impacts	Environmental Hazard	Incompatibility	Flammability	Exposure Limits*
Lime	Causes severe eye irritation.	Not considered toxic to the environment.	Strong acids.	Not flammable	No specific limit
Nitric Acid	Causes severe skin burns and eye damage, respiratory irritation.	Harmful to aquatic life.	Organic materials, reducing agents.	Not flammable	NIOSH REL 2 ppm
Sulphuric Acid	Causes severe skin burns and eye damage, respiratory irritation.	Harmful to aquatic life.	Organic materials, reducing agents.	Not flammable	NIOSH REL 1 mg/m^3

*For metal ores and cobalt hydroxide, the NIOSH REL for the elemental form of the metal are provided as no REL (or other exposure limits) for the ores are available. All values are time weighted averages (TWA) which is exposure over an eight hour period, except where stated otherwise. Where no NIOSH REL is available, the Namibian limit or OSHA permissible exposure limit (PEL) for respirable particulates (dust) are provided.

4.2.2 Handling and Storage

The facility will operate as a back-of-port receipt, storage and dispatch warehouse for break-bulk, containerised and bulk cargo. All cargo will be handled and stored inside the warehouse in accordance with client requirements and product compatibility, with segregation and storage arrangements determined by the relevant MSDSs.

Break-bulk and containerised cargo (e.g. bagged, bundled, palletised or crated goods, and liquids stored in intermediate bulk containers (IBCs)) will generally be stored and distributed in the state and packaging in which it is received. For export activities, empty containers may be positioned for stuffing, after which bagged or bundled commodities will be loaded into containers without changing the condition of the goods. For imports, containers may be de-stuffed and the commodities stored under roof prior to dispatch. Handling will be undertaken using appropriate mechanical equipment such as forklifts and reach stackers.

Bulk cargo will be received and dispatched by road using suitable loading and handling equipment, selected based on the material characteristics and client requirements. Bulk material may be loaded or offloaded directly to/from HMVs (e.g. by front-end loader or other suitable plant), and may also be transferred into bulk bags and/or suitable containers for storage and/or onward transport where required. Where transfer into bulk bags or containers occurs, this will be managed in a controlled manner to minimise losses, dust generation and cross-contamination, and to ensure safe handling and transport.

All operations will be carried out in accordance with the Proponent's standard operating procedures and recognised industry requirements for the safe handling and shipping of goods, including Safety of Life at Sea (SOLAS) requirements applicable to container stuffing for export consignments.

4.2.3 Transport of Cargo

The Proponent will transport products via road, in compliance with all relevant Namibian and international laws and best practices. Cargo movement will occur locally, nationally, and across borders to neighbouring southern African countries, supporting regional trade and distribution. Break bulk and bulk cargo will be handled either directly by the Proponent or through appointed contractors, depending on logistical requirements and the nature of the cargo. Transport operations will strictly adhere to hazard classifications outlined in each product's MSDS, with safety measures embedded throughout the logistics chain. The Proponent has established emergency response plans for the transport of cargo which outlines preparedness, response, and recovery procedures in the event of an incident during transit. This includes clear roles and responsibilities for emergency response teams, coordination with local authorities, and mitigation actions aligned with the severity of the event, ensuring that transport activities are safely and effectively managed under all operating conditions.

4.2.4 Maintenance and Upgrades

Throughout operations, regular inspections and maintenance of the infrastructure on site will be performed. This may include regular cleaning and painting of structures. Some infrastructure may be replaced or upgraded when required. During such maintenance and upgrade activities some waste may be produced that will require disposal.

4.2.5 General

The workforce present on site will be between 10 and 20 workers consisting of forklift operators, tally clerks and general workers. In addition, site supervisors and managers will be present on site. Security personnel will also be on site as part of security measures to be implemented.

Existing utilities such as water, sewers and electricity are already installed and will be used for the proposed warehouse operations. Disposal of domestic waste will continue to be performed at the waste disposal site of the Municipality of Walvis Bay. Third party contractors

may be used to safely dispose of hazardous waste or contaminated products where such wastes are present on site. This includes torn bulk bags or bulk bags that have reached the end of its useable life.

5 ALTERNATIVES TO THE PROPOSED FACILITY

The Proponent has entered into a rental agreement for an existing facility located within a designated industrial area. As the development will utilise an already-developed property with an existing warehouse, no feasible site alternatives were identified or assessed.

All cargo will be handled and stored under roof within the warehouse. This approach provides the most effective means of protecting goods from weather exposure and reducing the potential for nuisance impacts such as dust generation, while also supporting orderly segregation and safe handling. As a result, no alternative storage locations on site (e.g. outdoor storage areas) are proposed.

Although the core operational approach remains fixed, practical alternatives that may enhance environmental performance will be considered where feasible. These include investigating the installation of photovoltaic (solar) panels to supplement electricity supply and reduce demand on the grid, and applying the waste hierarchy (reduce, re-use and recycle) to minimise waste requiring disposal at a licensed landfill.

The no-go alternative would mean that the facility and associated operations do not proceed, thereby avoiding project-related impacts but also foregoing the anticipated socio-economic and service benefits associated with the proposed storage and handling activities.

6 ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programmes and policies deemed to have adverse impacts on the environment require an environmental assessment, as per the Namibian legislation. The legislation and standards provided Table 6-1 to Table 6-4 govern the environmental assessment process in Namibia and/or are relevant to the facility.

Table 6-1 Namibian law applicable to the facility and related operations

Law	Key Aspects
The Namibian Constitution	♦ Promote the welfare of people ♦ Incorporates a high level of environmental protection ♦ Incorporates international agreements as part of Namibian law
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	♦ Defines the environment ♦ Promote sustainable management of the environment and the use of natural resources ♦ Provide a process of assessment and control of activities with possible significant effects on the environment
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	♦ Commencement of the Environmental Management Act ♦ List activities that requires an environmental clearance certificate ♦ Provide Environmental Impact Assessment Regulations
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	♦ Define the powers, duties and functions of local authority councils ♦ Regulates discharges into sewers

Law	Key Aspects
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	♦ Provides a framework for a structured more uniform public and environmental health system, and for incidental matters ♦ Deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation
Petroleum Products and Energy Act Act No. 13 of 1990, Government Notice No. 45 of 1990	♦ Regulates petroleum industry ♦ Makes provision for impact assessment ♦ Petroleum Products Regulations (Government Notice No. 155 of 2000) ♦ Prescribes South African National Standards (SANS) or equivalents for construction, operation and decommissioning of petroleum facilities (refer to Government Notice No. 21 of 2002)
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	♦ Provides for Labour Law and the protection and safety of employees ♦ Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997)
Atmospheric Pollution Prevention Ordinance Ordinance No. 11 of 1976	♦ Governs the control of noxious or offensive gases ♦ Prohibits scheduled process without a registration certificate in a controlled area ♦ Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process
Hazardous Substances Ordinance Ordinance No. 14 of 1974	♦ Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export ♦ Aims to prevent hazardous substances from causing injury, ill-health or the death of human beings
Pollution Control and Waste Management Bill (draft document)	♦ Not in force yet ♦ Provides for prevention and control of pollution and waste ♦ Provides for procedures to be followed for licence applications
Road Traffic and Transport Act Act No. 52 of 1999 Government Notice No. 282 of 1999	♦ Provides for the control of traffic on public roads and the regulations pertaining to road transport
Road Traffic and Transport Regulations Government Notice No 53 of 2001	♦ Prohibits the transport of goods which are not safely contained within the body of the vehicle; or securely fastened to that vehicle, and which are not properly protected from being dislodged or spilled from that vehicle
Foreign Investment Act 27 of 1990 (as amended by Foreign Investment Amendment Act 24 of 1993)	♦ Provides for the promotion of foreign investment in Namibia ♦ Considers environmental impacts associated with foreign investments.

Table 6-2 Municipal by-laws, guidelines and regulations

Municipal By-laws, Guidelines or Regulations	Key Aspects
Integrated Urban Spatial Development Framework for Walvis Bay	♦ Overall vision to transform Walvis Bay to being the primary industrial city in Namibia

	♦ Aims to ensure that appropriate levels of environmental management is enforced for all developments in Walvis Bay
Integrated Environmental Policy of Walvis Bay (Agenda 21 Project)	♦ Indicates the directions that the Municipality of Walvis Bay will move towards in the forthcoming years to fulfil its responsibilities to manage the environment of Walvis Bay together with the town's residents and institutions ♦ Strong focus on conservation and protection of environment
Municipal By-law 19 and 20 on Effluents Entering Sewers	♦ Regulates the discharge of effluent into sewers and prohibits the introduction of certain wastes or products including steam into the sewers system.
Town Planning Scheme No. 35	♦ Manages and regulates development related to land use ♦ Proposes and identifies areas for specific future land use

Table 6-3 Relevant multilateral environmental agreements

Agreement	Key Aspects
Stockholm Declaration on the Human Environment, Stockholm 1972	♦ Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment
1985 Vienna Convention for the Protection of the Ozone Layer	♦ Aims to protect human health and the environment against adverse effects from modification of the Ozone Layer are considered ♦ Adopted to regulate levels of greenhouse gas concentration in the atmosphere
United Nations Framework Convention on Climate Change (UNFCCC)	♦ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention

Table 6-4 Standards or codes of practise

Standard or Code of practise	Key Aspects
International Dangerous Goods Code (IMDG Version 10 of 2010)	♦ For handling and storage of dangerous cargo
Various Seafaring Codes and Standards	♦ The transport of cargo at sea is regulated by numerous codes and standards. Key to the Proponent are those pertaining to the loading and transport of cargo like the International Convention for the Safety of Life at Sea (SOLAS), 1974 which has the regulations: o Chapter VI - Carriage of cargoes o Chapter VII - Carriage of dangerous goods

The project is listed as an activity requiring an environmental clearance certificate as per the following points from:

Section 9 of Government Notice No. 29 of 2012: Hazardous Substance Treatment, Handling and Storage

♦ 9.1 "The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974."

7 ENVIRONMENTAL CHARACTERISTICS

This section lists pertinent environmental characteristics of the study area and provides a statement on the potential environmental impacts on each.

7.1 LOCALITY AND SURROUNDING LAND USE

The facility is located within the industrial area of Walvis Bay (22.958760 °S and 14.533953 °E). The erven is zoned for light industrial use with the primary use including “warehouse” and “storage premises”. The property is located in a new development area in Walvis Bay. The entrance to the commercial harbour of the Port of Walvis Bay is 3 km west of the erven. Walvis Bay itself is surrounded by the Dorob National Park, with the Namib Naukluft Park further to the east. See Figure 7 2 for features of interest in the larger area around Walvis Bay.

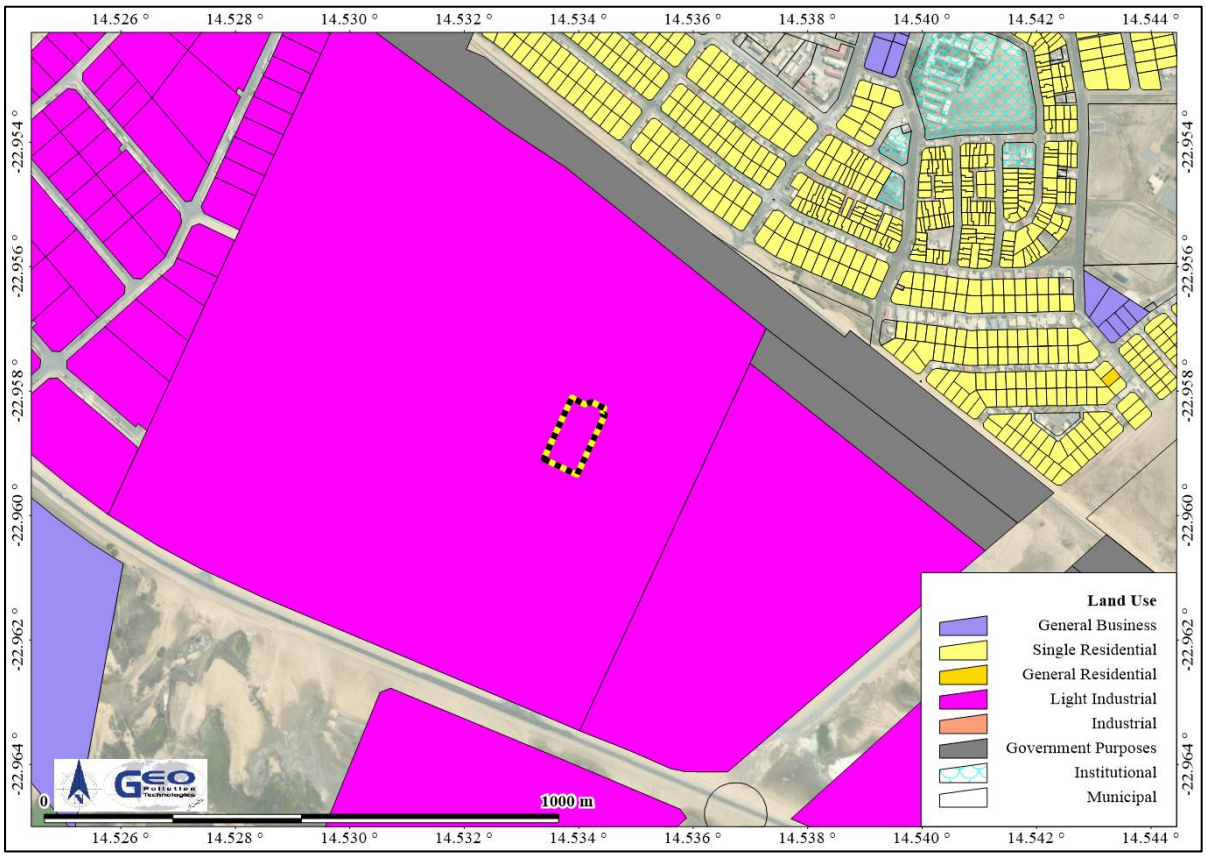

Figure 7-1 Site and surrounding property zoning

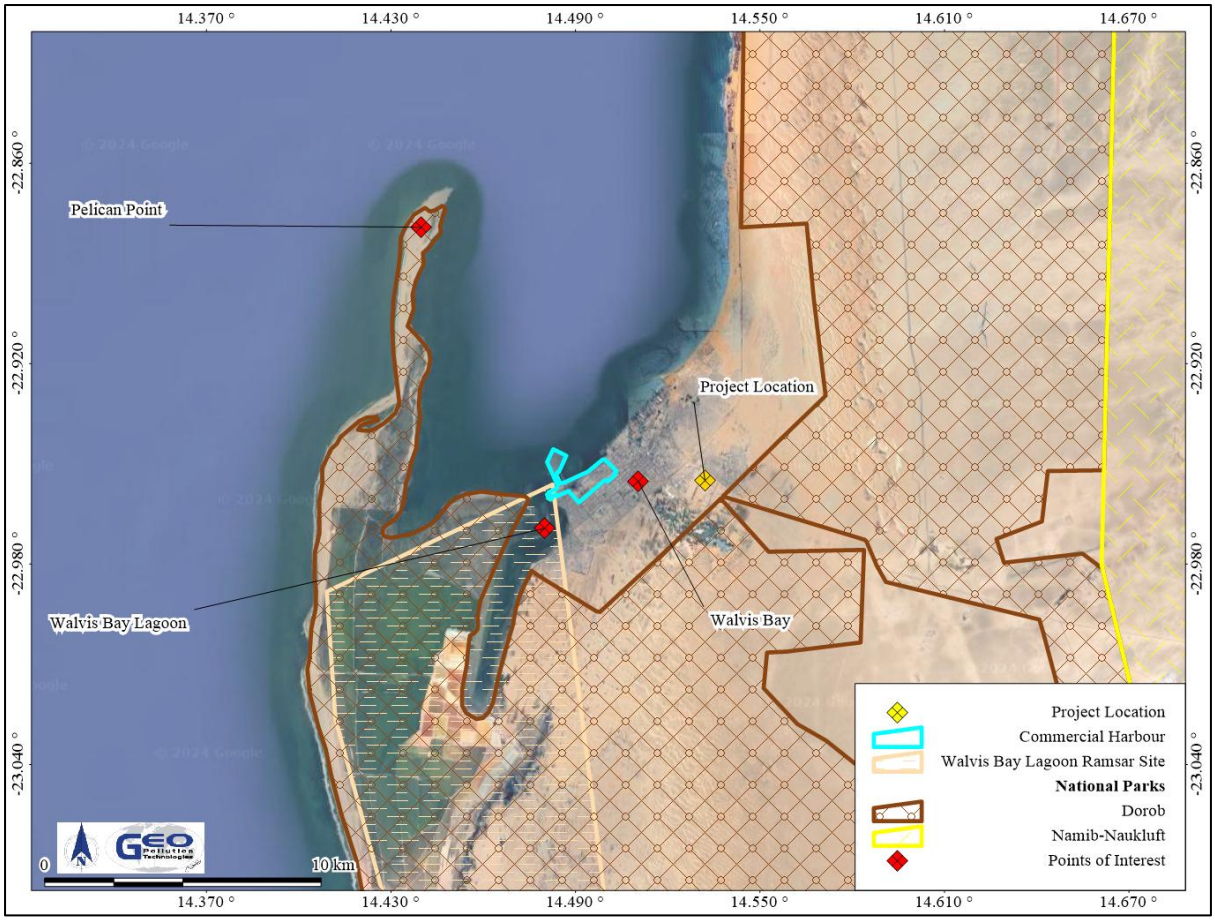

Figure 7-2 Project location in relation to the larger setting

Implications and Impacts

The site itself is situated in an area intended for light industrial use. Activities surrounding the site is of similar nature. Consent use will be required from the local municipality. All storage and handling activities will take place within the property boundary to ensure impacts on neighbours are minimised. Operations may increase traffic within the area.

7.2 CLIMATE

Namibia's climate is dominated by dry conditions for most of the year and particularly so in the west. The location of Namibia with respect to the Intertropical Convergence Zone, Subtropical High Pressure Zone and Temperate Zone is what determines the climate, with the Subtropical High Pressure Zone being the major contributor to the dry conditions (Atlas of Namibia Project, 2002; Bryant, 2010), see Figure 7-3.

Walvis Bay, Namibia

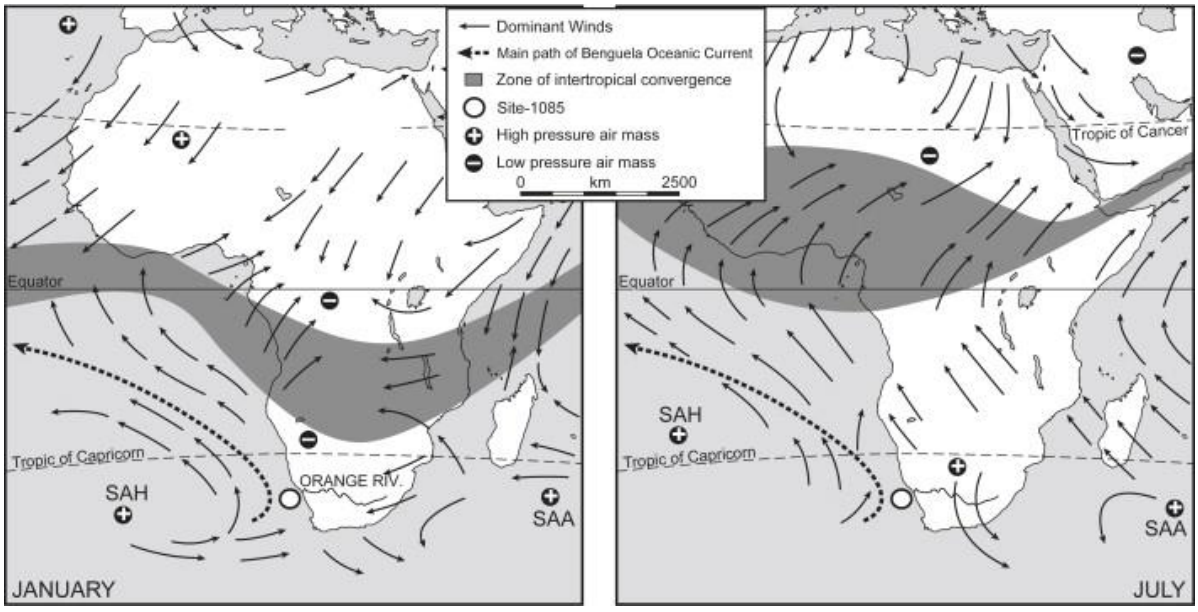

Figure 7-3 Map indicating the Intertropical Convergence Zone, Subtropical High Pressure Zone (SAH+), Benguela Current and Temperate Zone south of Tropic of Capricorn (not indicated) (from: http://www.meteoweb.eu)

Precipitation over Namibia is mainly controlled by the South Atlantic High (SAH), a high pressure cell (anticyclone) situated west of Namibia in the Subtropical High Pressure Zone. The SAH shifts during the year and is at higher latitudes in winter and lower latitudes in summer. In winter, as a result of being situated more north, the high pressure cell pushes any moisture originating from the Intertropical Convergence Zone northwards, preventing rain over Namibia. In summer, because the high pressure cell moves further south, and has less of an effect on the Intertropical Convergence Zone, moist air reaches Namibia, resulting in summer rains.

Studies indicate the presence of a thermal inversion layer at Walvis Bay. Originally this was thought to be at approximately 500 mamsl (Taljaard and Schumann 1940), but recent studies indicate it as low as 200 mamsl (Patricola and Chang, 2017; Corbett, 2018). A marine atmospheric boundary layer (MBL) exists offshore of the coastline that thins from more than 500 mamsl to 200 mamsl as it nears the coast (Figure 7-4). The MBL is a layer of cool, well-mixed, stable air that is capped by a thermal inversion (Patricola and Chang, 2016; Corbett 2018). This thermal layer or inversion layer will prevent the escape of pollutants such as smoke higher into the atmosphere. The MBL however contribute to high velocity wind speeds by funnelling the winds created by the SAH, resulting in what is referred to as the Benguela Low-Level Coastal Jet (Figure 7-4). Since the MBL overlap partially with the coastal plain, the wind generated by the Benguela Low-Level Coastal Jet also reaches inland, but diminishes relatively quickly further inland.

Type

14th

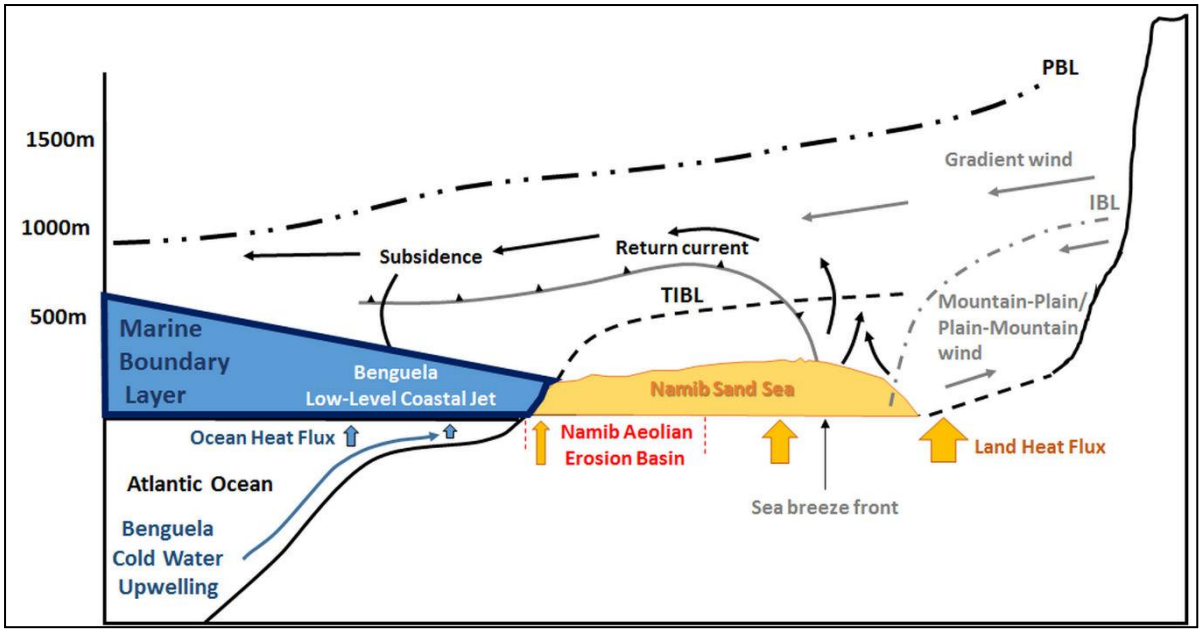

Figure 7-4 Marine atmospheric boundary layer (from: Corbett, 2018)

On a more localised scale, the climatic conditions on the central Namibian coast, and inland thereof (coastal plains), are strongly influenced by the cold Benguela Current, the SAH and the relatively flat coastal plains that are separated from the central highlands by a steep escarpment.

The anticlockwise circulation of the high pressure SAH and the action of the earth's Coriolis force results in strong southerly (longshore) winds blowing northwards up the coastline of Namibia (Bryant, 2010; Corbett, 2018). This longshore wind is responsible for upwelling of the cold, deep waters of the Benguela Current. As a result of the temperature difference between the cold surface water of the Benguela Current and the warm coastal plains, the southerly wind is diverted to a south south-westerly to south-westerly wind along the coast. At Walvis Bay the temperature gradient that forms over the warmer darker sands south of the Kuiseb River, compared with the cooler, lighter coloured gravel plain to the north of the river, leads to the formation of cyclonic circulation (localised low-pressure systems) centred over the dune area, due to warm air that rises over the dune area. This, together with topographical changes and land-use, causes a local deflection of wind flow over the Walvis Bay area, from south to southwest in Walvis Bay (Figure 7-5), to more southwest to westerly further inland, as well as reduced wind speeds. The more low speed, westerly winds are for example experienced at the Walvis Bay Airport (Rooikop).

The winds are strongest in early to mid-summer (September to January) when the SAH is at its strongest and most persistent, and the temperature difference between the sea and the desert plains are at its greatest. Wind speeds then occasionally exceed 32 km/hr and usually peaks late morning to early afternoon. In winter, the SAH loses strength and the southerly to south-westerly winds are at their weakest. Winter winds do not have enough strength to reach far inland. Autumn to winter conditions do however promote the formation of east wind conditions (berg winds) that can reach speeds of more than 50 km/hr and transport a lot of sand. East winds occur when the inland plateau is cold with a localised high pressure cell, while a low pressure system is present at the coast. The high pressure cell forces air off the escarpment and as the air descents, it warms adiabatically as well as create a low pressure system due to the vertical expansion of the air column. The warm air flows toward the coastal low and as it passes over the Namib plains, it heats up even further. The wind manifests itself as very strong, warm and dry wind during the mornings to early afternoon, but dissipate in the late afternoon.

Throughout the year the prevailing night time regional wind is a weak easterly wind. This results when the mainland cools to below the temperature of the coastal water. This results in a coastal low versus an onshore high pressure system with first no wind in the early evening, when

temperatures between water and land is similar, and then weak easterly winds as the temperature difference increase. Wind within the MBL remains dominated by the Benguela Low-Level Coastal Jet, causing a localised southerly wind over Walvis Bay, see Figure 7-5.

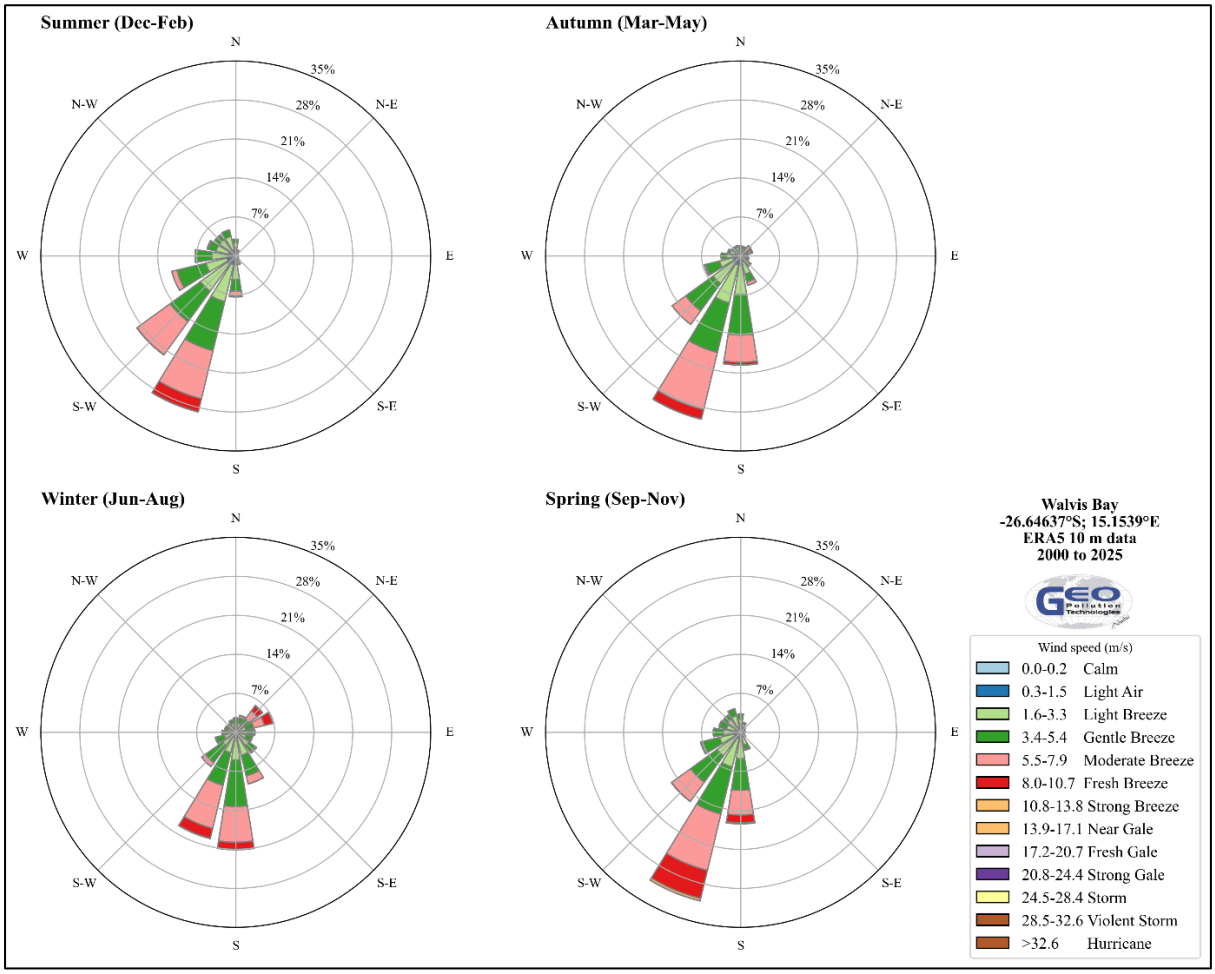

Figure 7-5 Seasonal wind rose - 2000 to 2025 (ERA4 10m data)

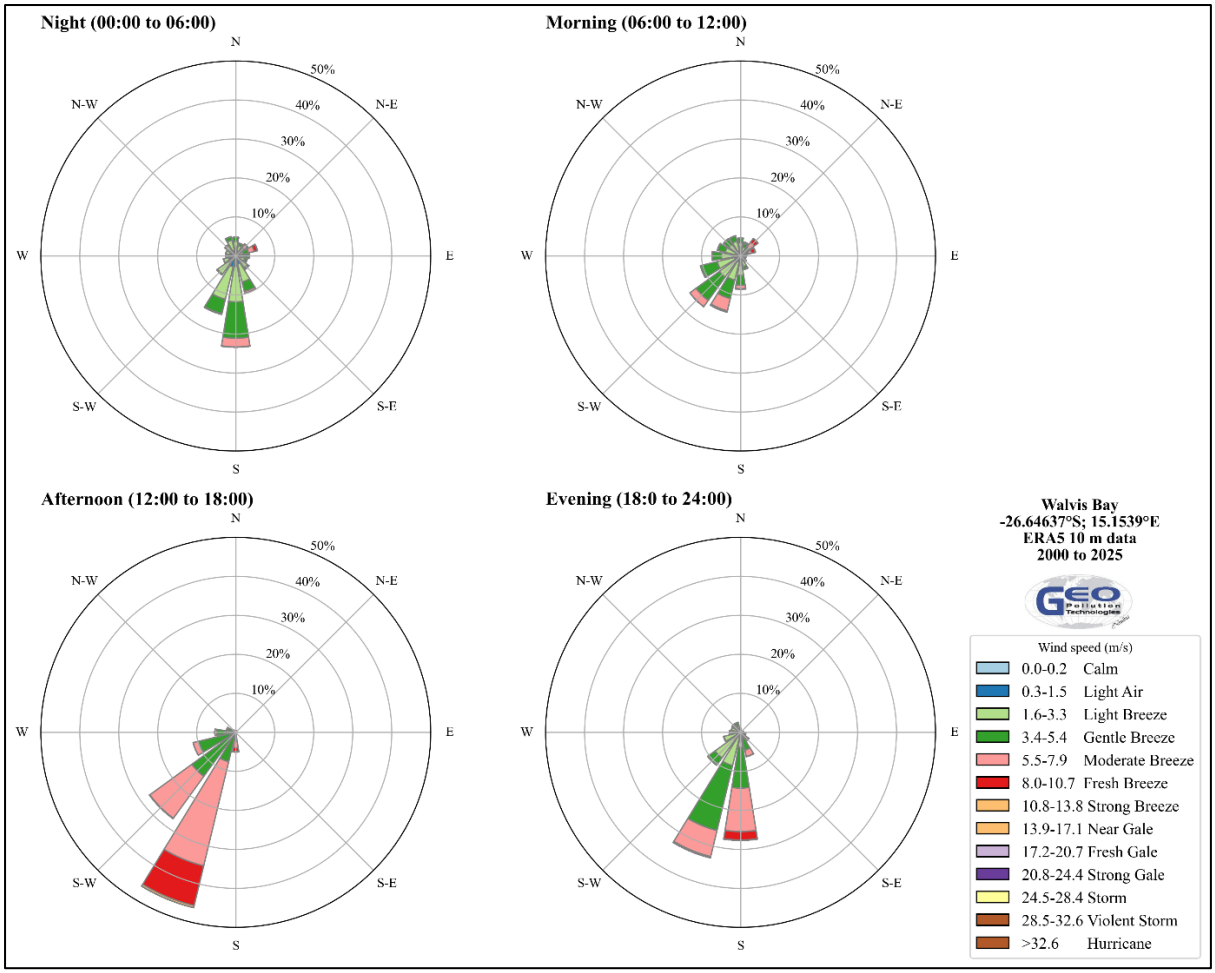

Figure 7-6 Quarter day wind rose (ERA4 10m data)

Temperature at Walvis Bay is strongly regulated by the cold Benguela current. As a result, there is typically limited variation between diurnal and seasonal temperatures. Average annual temperatures are approximately 18 °C to 19 °C with the maximum temperature seldom above 30 °C and minimums rarely below 5 °C (Figure 7-7). The only real temperature extremes are experienced during east wind conditions in the autumn to early winter months when temperatures can reach the upper thirties or even low forties. This results in these months having an average maximum temperature ranging from 30 °C to 35 °C. As one moves inland from Walvis Bay, daytime temperatures increases rather quickly while night time temperatures can get significantly colder in the desert environment.

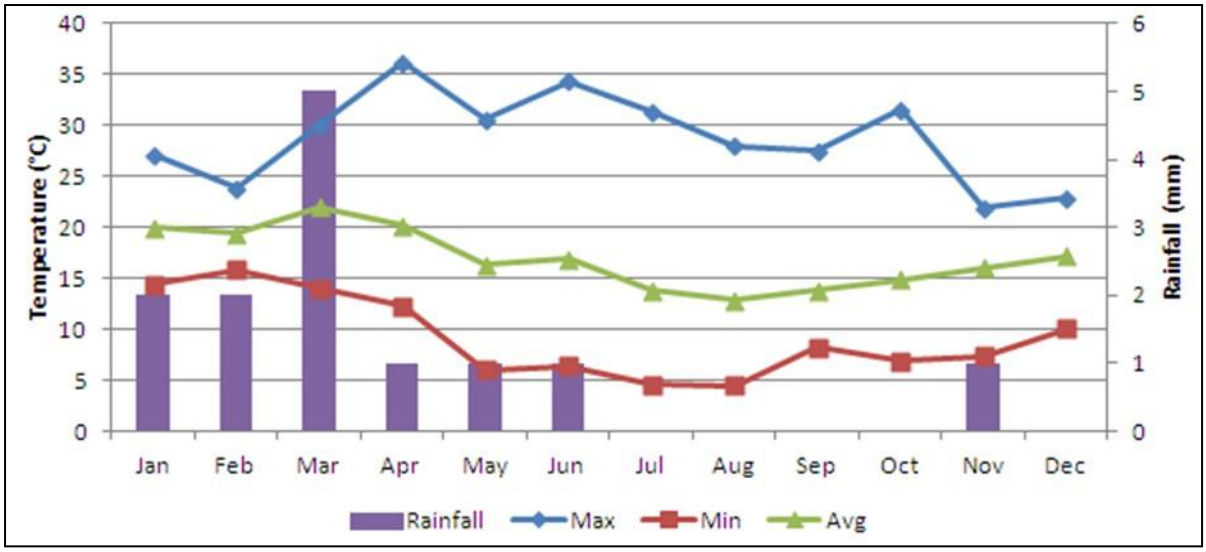

Figure 7-7 Temperature and rainfall at Walvis Bay (from: uMoya-NILU, 2020)

As explained above, the SAH severely limits the amount of rainfall over Namibia and especially at the coast and over the Namib Desert. As such, the average annual rainfall in Walvis Bay is below 50 mm (Figure 7-7), with 100% variation in annual rainfall. Infrequent, heavy rainfall does occur and typically results in rather chaotic conditions as Walvis Bay, and other coastal towns, has not been developed to cater for large volumes of storm water. Fog plays a very significant role as source of water for many plants and animals along Namibia's coast and the Namib Desert. Walvis Bay has up to 900 hours of fog per year and it results from the cold Benguela water cooling the humid air above it to such a temperature that the water vapour condenses to form fog and low level clouds (Mendelsohn et al., 2002).

Implications and Impacts

The strong westerly to south-westerly winds in Walvis Bay will carry any dust on site for great distances. Dust plumes may have potential health impacts (humans and animals) as well as cause damage to infrastructure and create a negative visual impact. Prevailing winds are away from any residential areas. Heavy rainfall does not occur frequently but in such an event, metal ore dusts and other potential pollutants such as spilled hydrocarbons, may be washed off site and enter the environment. Infrastructure damage can also occur.

Strong winds on site can cause damage to infrastructure not constructed or anchored to withstand them.

7.3 CORROSIVE ENVIRONMENT

Walvis Bay is located in a very corrosive environment, which may be attributed to the frequent salt-laden fog, periodic winds and abundance of aggressive salts (dominantly NaCl and sulphates) in the soil. The periodic release of hydrogen sulphide (H_2S) from the ocean is expected to contribute to corrosion. See Figure 7-8 for corrosion comparison data with other centres.

Walvis BAy

The combination of high moisture and salt content of the surface soil can lead to rapid deterioration of subsurface metal (e.g. pipelines) and concrete structures. Chemical weathering of concrete structures due to the abundant salts in the soil is a concern.

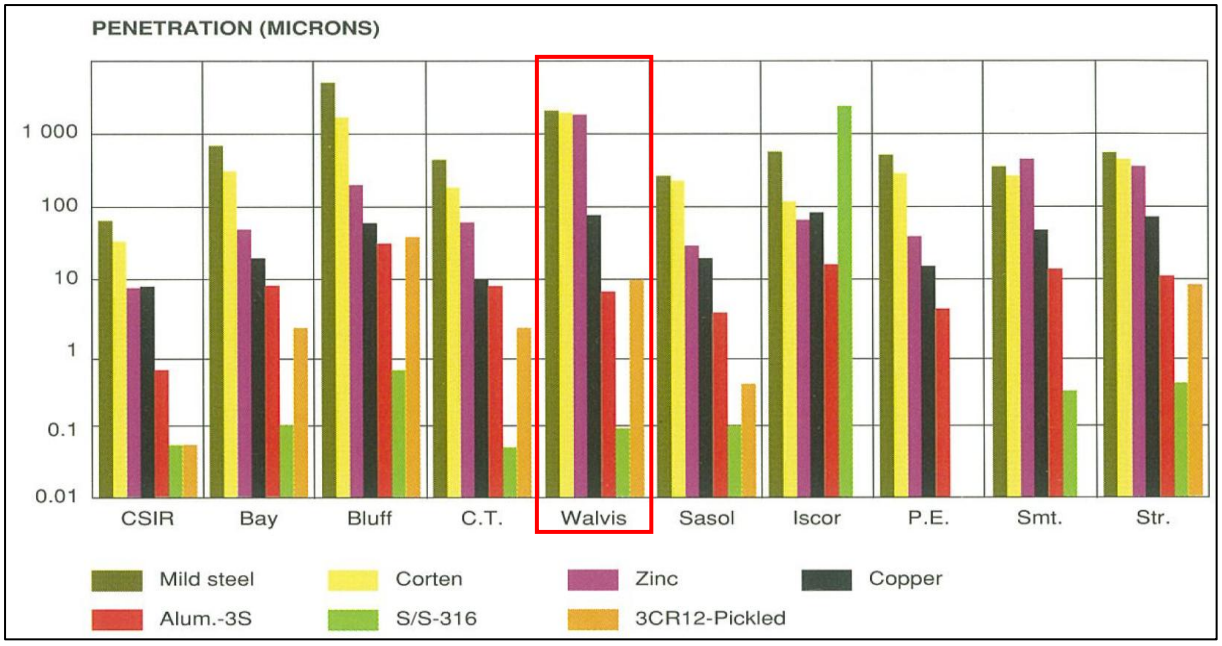

Figure 7-8 Twenty year corrosion exposure results in southern African towns (Callaghan 1991)

Implications and Impacts

Corrosion levels may be high and must be kept in mind when planning the construction and maintenance of the facility and related infrastructure. Goods will not remain on site for prolonged periods of time, thereby reducing their risk to corrode on site.

7.4 TOPOGRAPHY AND DRAINAGE

Walvis Bay is located in the Central Western Plain of Namibia. The Kuiseb River forms the southern boundary of this landscape group, with the Namib Dune Field being present south of the Kuiseb River. A bay is formed by a peninsula commonly known as Pelican Point. On the southern part of the bay is a lagoon which used to be the mouth of the Kuiseb River. Dune migration however forced the flow of the Kuiseb River to the north. This flow was stopped through the construction of a flood control wall to prevent flooding of the town of Walvis Bay, thus forcing the flood waters to move through the dune area to the lagoon. The Kuiseb River now rarely reaches the lagoon.

The topography on site and surroundings have been levelled in order to support development. Surface flow is thus highly influenced by anthropogenic activity. In general, drainage in the Walvis Bay area is poorly developed due to the lack of rainfall <50 mm/annum received. A dune field is present southeast of Walvis Bay and also further to the northeast. These dunes generally migrate in a northerly direction. Further inland is the gravel plains of the central areas of the Namib Naukluft Park. Surface water around Walvis Bay is limited to the marine salt pans, lagoon and ocean as well as a man-made wetland formed as a result of the sewage treatment works.

Implications and Impacts

Any pollutants that are not contained and are transported via surface water flow may be transported out of the site to the surrounding environment. Therefore, the storage of hazardous substances must be strictly controlled according to industry best practise requirements.

7.5 GEOLOGY AND HYDROGEOLOGY

Walvis Bay is located in the Central Western Plain of Namibia. The Kuiseb River forms the southern boundary of this landscape group, with the Namib Dune Field being present south of the Kuiseb River. Northerly dune migration is forcing the Kuiseb River in a northerly direction, with Kuiseb River paleochannels being present as far south as Sandwich Harbour.

Following the breakup of West-Gondwana during the early Cretaceous (130 – 135 Ma ago), continental uplift took place, enhancing erosional cutback and the formation of the Namibian Escarpment. A narrow pediplain formed, mainly over Damara Age rocks. The South Atlantic started filling in over the pediplain, with marine conditions established around 80 Ma ago. Towards the end of the Cretaceous (70 – 65 Ma ago) a relative level surface was created, on which later deposition of sediments took place. Marine deposition took place in the parts covered by the newly formed South Atlantic Ocean, while terrestrial deposits took place on land. Further continental uplift moved the shoreline to its present position.

Northwards migration of sand covered parts of the exposed marine deposits, with Kuiseb floods also depositing material over the marine sediments. Depth to bedrock in Walvis Bay is expected to be deeper than 40 m below surface. Based on previous work conducted in the area, it is expected that the sediments under the project area would consist of medium to coarse grain sand with thin lenses of more clayey material and layers of shell material.

Shallow freshwater lenses might be present. The origin of these freshwater lenses would mostly be freshwater leakages from the water supply reticulation as well as from the semi purified ponds present near the effluent treatment works.

Implications and Impacts

Groundwater is not utilised in the area. Pollution of the groundwater is however still prohibited. Adherence to Namibian law or better in relation to correct handling and storage of hazardous substances, and spill control structures installed and maintained where hazardous substances are stored and handled will successfully prevent pollution of groundwater, surface water or soil. Shallow groundwater may lead to rapid lateral spreading of contaminants. This may further have potential impact on underground utilities and may cause impacts on neighbouring properties.

7.6 PUBLIC WATER SUPPLY

Public water supply to Walvis Bay and the surrounding developments is provided by NamWater from the NamWater Kuiseb Water Supply Scheme.

Implications and Impacts

Groundwater is saline and not used as potable water source. No potential contamination impact on water supply is thus expected. Water usage by the facility will be mainly for domestic use an possibly for dust suppression, but is not expected to have a negative impact on public water supply.

7.7 ECOLOGY

The site is located within an industrial area which has no vegetation. Of note nearby (4.7 km southwest) is the Walvis Bay Lagoon, the salt works and the southern part of the bay west of the lagoon, which are the key components of the 12,600 ha Ramsar site (Wetland of International Importance). It is important both as an over-wintering area for Palaearctic migrant wader species as well as for African species such as Greater and Lesser Flamingos, Great White Pelican and Chestnut-Banded Plovers.

The sewerage ponds, situated about 1.3 km south of the property, are regarded as sensitive manmade wetlands. Although a manmade fresh water source, they are an attraction for pelicans and flamingos. These wetlands also support 53% of the duck and geese population in the area. The wetland is formed by the constant inflow of semi-purified water and supports extensive stands of reeds. There is also a flight path for birds between the sewerage ponds, the lagoon and the offshore bird breeding platform (Ghwano Island) 8.5 km north of the site. The site is near the flight paths for the three major habitats (lagoon, sewage ponds and Ghwano Island).

Implications and Impacts

The facility is located within an already disturbed industrial area. Thus no immediate threat to biodiversity in the area is expected, however, uncontrolled pollution may and can cause damage to any biodiversity surrounding the site. Bright lighting may also negatively affects birds flying at night and may cause disorientation and collisions.

7.8 DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

At local level Walvis Bay has an urban population size of 51,618 (Namibia Statistics Agency, 2023). Walvis Bay is the principal port of Namibia, and is an import/export facility for processed fish, mining products and beef. The area is linked to Namibia's air, rail and road network, making its port well situated to service Zambia, Zimbabwe, Botswana, Southern Angola and South Africa.

Table 7-1 Demographic characteristics of Walvis Bay, the Erongo Region and Nationally (Namibia Statistics Agency, 2023)

	Walvis Bay Urban	Walvis Bay Rural	Erongo Region	Namibia
Population (Males)	26,212	25,828	122,322	1,474,224
Population (Females)	25,406	25,669	117,884	1,548,177
Population (Total)	51,618	51,497	240,206	3,022,401
Population Density (persons/km^2)	2,730.8		3.8	3.7

Implications and Impacts

The facility will provide additional employment to people from the area. Some skills development and training will benefit employees during the operational phase. Operations may have further stimulate economic growth of the area and region which may result in more job opportunities.

7.9 HERITAGE, CULTURAL AND ARCHAEOLOGICAL ASPECTS

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

8 PUBLIC CONSULTATION

Consultation with the public forms an integral component of an environmental assessment investigation and enables interested and affected parties (IAPs) such as neighbouring landowners, local authorities, environmental groups, civic associations and surrounding communities to comment on the potential environmental impacts associated with projects and to identify additional issues which they feel should be addressed in the environmental assessment.

Public participation notices were advertised twice on 1 and 8 December 2025. A site notice was placed at Erf 5184 and 5187 (Extension 14), Walvis Bay. Interested and affected parties were identified and notified of the project. Notification letters were hand delivered to available neighbours as well as the Municipality of Walvis Bay. The Municipality did not sign the notification register at the time of delivery and a follow-up email was subsequently sent with all relevant documentation. See Appendix A for proof of the public participation processes. No one registered as IAP for the project and no concerns regarding the project were raised during the public consultation phase.

9 ASSESSMENT AND MANAGEMENT OF IMPACTS

The purpose of this section is to assess and identify the most pertinent environmental impacts that are expected from the operational, construction (also upgrades, maintenance, etc. – see glossary for "construction") and potential decommissioning activities of the facility. An EMP based on these identified impacts are also incorporated into this section.

For each impact an Environmental Classification was determined based on an adapted version of the Rapid Impact Assessment Method (Pastakia, 1998). Impacts are assessed according to the following categories: Importance of condition (A1); Magnitude of Change (A2); Permanence (B1); Reversibility (B2); and Cumulative Nature (B3) (see Table 9-1).

Ranking formulas are then calculated as follow:

Environmental Classification = A1 x A2 x (B1 + B2 + B3).

The environmental classification of impacts is provided in Table 9-2.

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).

Table 9-1 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 9-2 Environmental classification (Pastakia 1998)

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

9.1 RISK ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

The EMP provides management options to ensure impacts of the facility is minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The environmental management measures are provided in the tables and descriptions below. These management measures should be adhered to during the various phases of the operation of the facility. This section of the report can act as a stand-alone document. All personnel taking part in the operations of the facility should be made aware of the contents in this section, so as to plan the operations accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- to include all components of construction activities (upgrades, maintenance, etc.) and operations of the facility;
- to prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- to monitor and audit the performance of operational personnel in applying such controls; and
- to ensure that appropriate environmental training is provided to responsible operational personnel.

Various potential and definite impacts will emanate from the operations, construction and decommissioning phases. The majority of these impacts can be mitigated or prevented. The impacts, risk rating of impacts as well as prevention and mitigation measures are listed below.

As depicted in the tables below, impacts related to the operational phase are expected to mostly be of low to medium significance and can mostly be mitigated to have a low significance. The extent of impacts are mostly site specific to local and are not of a permanent nature. Due to the nature of the surrounding areas, cumulative impacts are possible and include noise pollution and traffic impacts.

9.1.1 Planning

During the phases of planning for construction, operations 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 minimised. 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) and operations of the facility are in place and valid.

- Ensure all appointed contractors and employees enter into an agreement which includes the EMP. Ensure that the contents of the EMP are understood by the contractors, sub-contractors, employees and all personnel present or who will be present on site.
- 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.
- Make provisions to have a community liaison officer on site who will handle complaints and community input, and through whom, where reasonable, monitoring data can be requested. Communicate the contact details of the community liaison officer to interested and affected parties when the project is initiated.
- 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.
- Prepare and submit environmental monitoring reports as per the conditions of the environmental clearance certificate.
- Appoint a specialist environmental consultant to update the EIA and EMP and apply for renewal of the environmental clearance certificate prior to expiry.

9.1.2 Employment

An increase of skilled and professional labour will result from the operations of the project. Employment will be sourced locally as far as practically possible while ore transport companies / drivers may be contracted from other regions. Development of the existing facility into the proposed operations will increase the sustainability of the current employment.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Employment contribution to local economy; project revenue generation	3	1	3	2	2	21	3	Definite
Indirect Impacts	Decrease in unemployment, increase in revenue generated	3	2	3	2	2	42	4	Definite

Desired Outcome: Provision of employment to local Namibians.

Actions

Mitigation:

- The Proponent must employ local Namibians where possible. If the skills exist locally, employees must first be sourced from the town, then the region and then nationally.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Bi-annual summary report based on employee records.

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9.1.3 Skills, Technology and Development

During operations, training will be provided to a portion of the workforce. Skills are transferred to an unskilled workforce for general tasks. The technology required for the development of the facility is often new to the local industry, aiding in operational efficiency. Development of people and technology are key to economic development.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Technological development and transfer of skills	3	1	3	2	2	21	3	Definite
Indirect Impacts	Economic development	3	1	3	2	2	21	3	Definite

Desired Outcome: To see an increase in skills of local Namibians, as well as development and technology advancements in associated industries.

Actions

Enhancement:

- If the skills exist locally, contractors must first be sourced from the town, then the region and then nationally. Deviations from this practise must be justified.
- Skills development and improvement programs to be made available as identified during performance assessments.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Record should be kept of training provided.
- Ensure that all training is certified or managerial reference provided (proof provided to the employees) inclusive of training attendance, completion and implementation.
- Bi-annual summary report based on records kept.

9.1.4 Revenue Generation

The project will change the way revenue is generated and paid to the national treasury. An increase of skilled and professional labour will result from the operations of the project and related wages and salaries will be paid. Employment at the warehouse will be sourced locally as far as practically possible while transport companies / drivers may be contracted from other regions in order to transport cargo to and from Walvis Bay. Revenue will be generated through the provision of port and related services such as stevedore operations.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Contribution to local and national economy	3	2	3	2	2	42	4	Definite
Indirect Impacts	Increase in revenue generated	3	1	3	2	2	21	3	Definite

Desired Outcome: Contribution to the local and national economy. Contribution to national treasury.

Actions

Enhancement:

- The Proponent must employ local Namibians and source Namibian contractors, goods and services as far as is practically possible. Deviations from this practise must be justified.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Bi-annual summary report based on employee records.

9.1.5 Demographic Profile and Community Health

The project is reliant on labour during the construction and operational phases. Local construction teams in Walvis Bay will be used for all general maintenance and upgrade activities. The scale of the construction portion of the project is limited and it is not expected to create a change in the demographic profile of the local community. Where possible, existing labour, already employed by the Proponent will be used or new labourers will be sourced from the town. Community health may be exposed to factors such as communicable disease like HIV/AIDS and alcoholism/drug abuse, associated with the trucking industry (transport of goods to and from Walvis Bay) and increased spending power of the labour force. HMVs delivering products to the warehouse will not stay for extended periods of time at the site, however, may reside over-night in Walvis Bay. Foreign persons in the area may increase the cumulative risk of communicable disease (such as HIV/ AIDS) in Walvis Bay.

Positive impacts will related to employees and contractors' increased economic resilience and improved livelihoods.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Social ills related to unemployment and cross country transport	2	-1	3	2	2	-14	-2	Probable
Daily Operations and Construction	Increased economic resilience and improved livelihoods	2	2	3	2	2	28	3	Probable
Indirect Impacts	The spread of diseases	3	-1	3	2	2	-21	-3	Probable

Desired Outcome: To prevent the in-migration and growth in informal settlements, prevent the spread of communicable disease and prevent / discourage socially deviant behaviour.

Actions:

Prevention:

- Employ local people from the area where possible, deviations from this practise should be justified appropriately.
- Adhere to all municipal by-laws relating to environmental health which includes, but is not limited to, sanitation requirements for workers on site.
- Appointment of reputable contractors.

Mitigation:

- Educational programmes for employees (especially truck drivers) on HIV/AIDs and general upliftment of employees' social status.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Facility inspection sheet for all areas which may present environmental health risks, kept on file.
- Bi-annual summary report based on educational programmes and training conducted.
- Bi-annual report and review of employee demographics.

9.1.6 Health, Safety and Security

Some chemicals handled and stored on site are hazardous with inherent health risks to personnel on site when inhalation, accidental ingestion, eye or skin contact occurs. Some chemicals may in itself not be particularly dangerous, but may become dangerous when in contact or mixed with incompatible materials. This may happen when for example incompatible materials are stored with each other, during containment failure (e.g. ruptured bags), or when different spilled products are cleaned and stored in the same container. If not contained, windblown ore dust may further pose health risk to nearby receptors.

Injuries can occur due to incorrect lifting of heavy equipment and materials, failing from heights, stacked chemicals tipping over, and accidents involving forklifts and vehicles.

Security risks are related to unauthorized entry, theft and sabotage. Security risks are increased as a result of high value commodities, e.g. copper cathodes, stored and handled at the site.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Physical injuries, exposure to chemicals and criminal activities	2	-2	3	2	2	-28	-3	Improbable

Desired Outcome: To prevent injury, health impacts and theft.

Actions

Prevention:

- Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool, which includes: operational, safe work and medical procedures, permits to work, emergency response plans, housekeeping rules, MSDS's and signage requirements (personal protective equipment (PPE), flammable etc.).
- Develop emergency response plans for all possible health, safety and security impacts and appoint responsible personnel in key positions to activate and oversee such plans when required.
- Clearly label dangerous and restricted areas as well as dangerous equipment and products.
- Provide all employees with required and adequate PPE which include coveralls, respirators and protective eyewear.
- Ensure that all personnel who will work in the warehouse receive adequate training on:
  - operation of equipment (mainly the forklift).
  - reading and understanding of MSDS instructions (take note that MSDS documents are not always 100% adequate and that some extra information for hazardous chemicals may be required).
  - handling of hazardous substances.
  - containment of hazardous substance spills.
  - correct application of neutralising agents, absorbents, etc. which may be used for spilled products (knowledge of incompatibilities is key).
  - identification of incompatible chemicals and the need to separate them during storage (segregation).
  - identification of potential hazardous conditions or events.
  - first aid and actions to be taken for specific highly dangerous chemicals should contact, inhalation or ingestion occur.
  - firefighting and compatible firefighting media for specific chemicals (see section 9.1.10).
- A MSDS file in which a particular MSDS can quickly be found, must be available in the warehouse.

- For specific highly dangerous chemicals (e.g. highly reactive with other chemicals and substances, highly flammable, highly corrosive or poisonous), abridged emergency procedures can be prepared that summarise they key do's and don'ts for each of these chemicals.
- The contact details of all emergency services must be readily available.
- An emergency shower, eyewash station and water bath must present and inspected daily to ensure it is in working order and ready for use in an emergency.
- Ideally, a worker should not be allowed to enter the warehouse alone when chemicals will be handled. Should an emergency situation result where a worker is injured to such an extent that he/she can't call for help (e.g. inhalation of noxious/corrosive fumes), aid and medical treatment may come too late to prevent serious injury or even fatalities. Safety measures must be implemented and these can include being accompanied by the security guard on site or using a panic button that can be worn by the warehouse employee which sounds an alarm in the offices.
- Security procedures and proper security measures must be in place to protect workers and clients.
- Equipment on site must be locked away or placed in a way that does not encourage criminal activities (e.g. theft).

Mitigation:

- For all emergency situations, the appropriate emergency response plan must be implemented as soon as possible in order to minimize the magnitude of impacts or prevent such impacts from developing into more severe impacts.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Receive chemical composition analysis results of various ores to be handled from the mines and scrutinise the results for any carcinogenic (or other hazardous) gangue material like asbestos. Should any such material be present, additional safety measures must be implemented to ensure that no workers or nearby receptors are exposed to dust.
- If regular complaints are received regarding dust, air quality monitoring must be conducted on and around the site to monitor ore dust fallout. Monitoring to be conducted by an independent specialist who must advise on the monitoring protocol to be followed.
- Any incidents must be recorded with action taken to prevent future occurrences.
- A bi-annual report should be compiled of all incidents reported. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained.

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9.1.7 Traffic

The volume of HMVs on the national road networks will increase. The warehouse is within an area zoned for industrial use and operations will result in an increase in traffic along Circumferential Road. Heavy motor vehicles turning in these roads may result in in an increased, cumulative impact on the road surface of the area. HMVs may block neighbouring business' entrances and increase the likelihood of accidents and incidents. Development of existing operations will not see a significant in an increase of traffic, however an altered flow patter with a dedicated entrance and exit will decrease possible collision risk at the access points.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Delivery of equipment and building supplies	1	-1	2	2	2	-6	-1	Probable
Daily Operations	Increase traffic, road wear and tear and accidents	2	-2	3	2	2	-14	-2	Definite

Desired Outcome: Minimum impact on traffic and no transport or traffic related incidents.

Actions

Mitigation:

- HMVs delivering or collecting goods should not be allowed to obstruct any traffic in surrounding areas and the town.
- HMVs associated with the facility should not be allowed to park or overnight in Circumferential Road, and may only overnight at areas designated for this purpose.
- Adhere to The Road Traffic and Transport Regulations, 2001 and all other applicable legislation related to road transport and maximum axle loads.
- If any traffic impacts are expected, traffic management should be performed to prevent these.
- The placement of signs to warn and direct traffic will mitigate traffic impacts.
- Identify vehicles on which hazardous substances are to be transported and handle all dangerous or hazardous goods according to MSDS instructions and under supervision of trained staff. Ensure the correct documentation (e.g. dangerous goods declaration, TREM card, etc.) is provided in the vehicle. Verify that the driver of the vehicle has undergone appropriate training.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- The Road Traffic and Transport Regulations, 2001.
- Any complaints received regarding traffic issues should be recorded together with action taken to prevent impacts from repeating itself.
- A bi-annual report should be compiled of all incidents reported, complaints received, and action taken.

9.1.8 Air Quality Related Impacts

Reduced air quality as a result of exhaust gases (greenhouse gases) of HMVs visiting the property and the port during construction and operations. This may have localised health impacts, but are expected to disperse relatively quickly due to the prevailing south-westerly winds in Walvis Bay. It will however still contribute to greenhouse gas emissions that in turn contribute to climate change. In terms of greenhouse gas emissions from HMVs, it is the project in its entirety that should be considered. It is thus the responsibility of all stakeholders to implement strategies and measures to curb the release of greenhouse gases. The Proponent's contribution to greenhouse gas emissions will be minimal.

Air quality as a result of windblown dust can cause health effects, especially through chronic inhalation of such dust, in the nearby communities. The risk is not only related to the metals in the ores per se, but also to the potentially harmful gangue materials that comprise the bulk of the ore, as well as respirable fractions (PM10) and thoracic fraction (PM2.5) of the dust. Since the gangue materials present are not necessarily known, but could potentially include for example asbestos, it is crucial that the inhalation / ingestion of dust is prevented at all times. Sources of such dust can originate from the warehouse when, for example, bulk bags tear.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Exposure to metal ore dust and its subsequent inhalation and/or ingestion and inhalation of exhaust gases. Damage to buildings as a result of exhaust gases resulting in acid deposition, ozone and soot build-up.	2	-2	3	2	2	-28	-3	Probable

Desired Outcome: To prevent health impacts and to reduce greenhouse gas emissions.

Actions

Prevention:

- All cargo must be secured on HMVs to prevent cargo from falling off and subsequent damage to containment,
- Appoint reputable contractors for transporting of ore who prioritise a "zero dust policy".

Mitigation:

- Dust suppression in the warehouse if ever required.
- All HMVs must be serviced regularly and make use of technology to reduce emissions. This include selective catalytic reduction, diesel particulate filters and diesel oxidation catalysts.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Receive chemical composition analysis results of various ores to be handled from the mines and scrutinize the results for any carcinogenic (or other hazardous) gangue material like asbestos. Should any such material be present, additional safety measures must be implemented to ensure that no workers or nearby receptors are exposed to dust.

- If regular complaints are received regarding dust, air quality monitoring must be conducted on and around the site to monitor ore dust fallout. Monitoring to be conducted by an independent specialist who must advise on the monitoring protocol to be followed.
- Any incidents must be recorded with action taken to prevent future occurrences.
- A bi-annual report should be compiled of all incidents reported and monitoring performed. The report should contain dates when safety equipment and structures were inspected and maintained.

9.1.10 Fire

Construction and operational activities may increase the risk of the occurrence of fires if proper maintenance and housekeeping are not conducted. Of the cargo to be handled, specifically, sulphur is flammable and should be segregated from any oxidisers or heat or ignition sources. Ore dust (fines) suspended in the air can become flammable in excessive quantities. Some chemicals stored are flammable in nature and can even become explosive when exposed to incompatible materials (e.g. oxidisers when mixed with a fuel source like hydrocarbons). Uncontrolled fires and explosions can cause extensive damage to surrounding properties and can lead to casualties.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Fire and explosion risk	2	-2	3	2	2	-28	-3	Improbable

Desired Outcome: To prevent property damage, possible injury and impacts caused by uncontrolled fires.

Actions:

Prevention:

- A holistic fire protection and prevention plan must be developed for the site and it should specifically take into account flammable products stored on site. This plan must include an emergency response plan, firefighting plan and a spill recovery plan and should have dedicated assigned personnel to oversee their development and implementation.
- Install smoke detectors in the warehouses.
- Firefighting equipment must be maintained and regularly serviced.
- Regular personnel training (firefighting, fire prevention and responsible housekeeping practices).
- Ensure all chemicals are stored strictly according to MSDS instructions. This include segregation of incompatible products.
- Ensure sufficiently trained warehouse employees who knows which fire extinguishing media (e.g. water, powder, foam) are incompatible with which chemicals (e.g. water on concentrated acid can result in a seriously violent reaction).
- Maintain regular site, mechanical and electrical inspections and perform regular maintenance.
- Clean all spills/leaks without delay and dispose of any contaminated material according to their MSDS requirements and at suitable locations to prevent the accumulation of flammable or explosive products on site.

Mitigation:

- For any fire related emergency situation, the appropriate emergency response plan must be implemented as soon as possible in order to minimize the magnitude of impacts or prevent such impacts from developing into more severe impacts.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A register of all incidents must be maintained on a daily basis. This should include measures taken to ensure that such incidents do not repeat themselves.

- A bi-annual report should be compiled of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested and training given.

9.1.11 Noise

Noise pollution will exist due to heavy motor vehicles accessing the site to load and offload cargo as well as from the stacking and moving of bags and containers and other large equipment. As the site is situated in an industrial area, noise impacts on surrounding properties will be minimal. Construction (maintenance and upgrade) may generate excessive noise for short periods of time.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive noise generated from construction activities – nuisance and hearing loss	2	-1	2	2	1	-10	-2	Probable
Daily Operations	Noise generated from the operational activities – nuisance and hearing loss	2	-1	3	2	2	-14	-2	Probable

Desired Outcome: To prevent any nuisance and hearing loss due to noise generated.

Actions

Prevention:

- The Health and Safety Regulations of the Labour Act and World Health Organization (WHO) guideline on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment for workers on site should be followed during the construction and operational phases.
- Confine noise generating operational activities to daytime hours as far as possible.
- At night, the nuisance created by audible warning signals on HMVs and forklifts can be prevented by switching to a flashing light or 'broadband white noise' system.

Mitigation:

- Hearing protectors as standard PPE for workers in situations with elevated noise levels.
- Maintain noise generating activities to within the warehouse as far as possible.
- All machinery must be regularly serviced to ensure minimal noise production.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Health and Safety Regulations of the Labour Act and WHO Guidelines.
- Maintain a complaints register.
- Bi-annual report on complaints and actions taken to address complaints and prevent future occurrences.

9.1.12 Waste production

Various waste streams will result from the operational phase and development of the facility. Waste may include hazardous waste associated with the handling of hazardous products and contaminated packaging material. Domestic waste will be generated by the facility and related operations. Waste presents a contamination risk and when not removed regularly may become a fire hazard. Construction waste may include building rubble and discarded equipment. Contaminated soil and water is considered as a hazardous waste.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive waste production, littering, illegal dumping, contaminated materials	1	-2	2	2	2	-12	-2	Definite
Daily Operations	Excessive waste production, littering, contaminated materials	1	-2	3	2	2	-14	-2	Definite

Desired Outcome: To reduce the amount of waste produced, and prevent pollution and littering.

Actions

Prevention:

- Waste reduction measures should be implemented and all waste that can be re-used / recycled must be kept separate.
- Ensure adequate temporary waste storage facilities are available.
- Ensure waste cannot be blown away by wind.
- Prevent scavenging (human and non-human) of waste.
- All drains leading directly into sewers must be closed off, and locked where possible, to prevent any unwanted products from entering sewers should an accidental spill occur. Where drains are present to drain wash water, these should only be opened during times of washing.

Mitigation:

- Waste should be disposed of regularly and at appropriately classified disposal facilities, this includes hazardous material (empty chemical containers, contaminated rugs, paper water and soil).
- See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers.
- Liaise with the municipality regarding waste and handling of hazardous waste.
- Due to the nature of some hazardous materials they, or the containers they are packed in, should be disposed of in an appropriate way at an appropriately classified waste disposal facility. See the material safety data sheets available from suppliers for disposal methods.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.
- Any complaints received regarding waste should be recorded with notes on action taken.
- All information and reporting to be included in a bi-annual report.

9.1.13 Ecosystem and Biodiversity Impact

The nature of the operational activities is such that the probability of creating a habitat for flora and fauna to establish is low. No significant impact on the biodiversity of the area is predicted as this is an existing operation and the site is void of natural fauna and flora. Excessive lighting used at night and especially those that are directed upwards may blind birds like flamingos that fly at night. This may result in disorientation of birds and collisions with structures. Further impacts will mostly be related to pollution of the environment.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Impact on fauna and flora. Loss of biodiversity	1	-1	2	2	2	-6	-1	Improbable
Daily Operations	Impact on fauna and flora. Loss of biodiversity	2	-1	3	2	2	-14	-2	Improbable

Desired Outcome: To avoid pollution of and impacts on the ecological environment.

Actions.

Mitigation:

- Report any extraordinary ecological sightings to the Ministry of Environment, Forestry and Tourism.
- Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts.
- Prevent scavenging of waste by fauna.
- The establishment of habitats and nesting sites at the facility should be prevented where possible.
- Lights used at night should be kept to a minimum and should be directed downwards to the working surfaces.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- All information of extraordinary ecological sightings to be included in a bi-annual report.

9.1.14 Groundwater, Surface Water and Soil Contamination

Ore dust or chemicals that are not contained in the warehouse or HMVs can contaminate the environment. The entire property will be paved and pollution of soil and groundwater is not expected. There is no surface water present nearby. Dust that is not contained can however reach sensitive receptors during times of strong wind. Oil, hydraulic fluid and fuel leaks from vehicles may also present a pollution risk.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Contamination from hazardous material spillages and hydrocarbon leakages	2	-1	2	2	1	-10	-2	Probable
Daily Operations	Contamination from hazardous material spillages	2	-1	3	2	1	-12	-2	Probable

Desired Outcome: To prevent the contamination of water and soil.

Actions

Prevention:

- Proper training of operators must be conducted on a regular basis (e.g. forklift operators).
- Channel water from the roofs out of the yard to minimize runoff on the paving which may potentially be contaminated by some metal ore and chemical dust.

Mitigation:

- Clean-up action must be taken immediately for all instances where ore dust is not contained (e.g. spillages and torn bags).

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary.
- A report should be compiled bi-annually of all spills. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, etc.

9.1.15 Visual Impact

This is an impact that not only affects the aesthetic appearance, but also the integrity of the facility. The site is within an area zoned for industrial use. The development of the site is in line with the urban character.

Operations will be kept tidy and neat which will promote effectiveness and pollution prevention while being aesthetically pleasing.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Aesthetic appearance and integrity of the site	1	-1	2	2	2	-6	-1	Probable
Daily Operations	Aesthetic appearance and integrity of the site	1	1	3	2	2	7	1	Definite

Desired Outcome: To minimise aesthetic impacts associated with the facility.

Actions

Mitigation:

- Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure that the longevity of structures are maximised and a low visual impact is maintained.
- All structures and infrastructures constructed on site should be line with the visual character of the landscape as far as practically possible.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A bi-annual report should be compiled of all complaints received and actions taken.

9.1.16 Cumulative Impact

The main cumulative impact associated with the operational phase is an increase in traffic frequenting the site. This will have a cumulative impact on traffic flow on surrounding streets.

The increase of traffic and other noise generating activities in the area may further increase the noise impacts on nearby receptors, the facility is however situated in an industrial area. The cumulative effect of lighting on birds due to various industrial related developments may also increase the risk of collisions and interference with bird flight paths at night.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	The build-up of minor impacts to become more significant	2	-1	3	2	2	-14	-2	Definite

Desired Outcome: To minimise all cumulative impacts associated with the facility.

Actions

Mitigation:

- Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact.
- Reviewing biannual and annual reports for any new or re-occurring impacts or problems would aid in identifying cumulative impacts and help in planning if the existing mitigations are insufficient.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Review bi-annual summary reports based on all other impacts to gain an overall assessment of the impact of the operational phase.

9.2 DECOMMISSIONING AND REHABILITATION

Decommissioning is not foreseen during the validity of the environmental clearance certificate. Decommissioning was however assessed as construction activities include modification and decommissioning. Should decommissioning occur at any stage, rehabilitation of the area may be required. Decommissioning will entail the complete removal of all infrastructure including buildings and underground infrastructure not forming part of post decommissioning use. Any pollution present on the site must be remediated. The impacts associated with this phase include noise and waste production as structures are dismantled. Noise must be kept within Health and Safety Regulations of the Labour Act and WHO standards and waste should be contained and disposed of at an appropriately classified and approved waste facility and not dumped in the surrounding areas. Future land use after decommissioning should be assessed prior to decommissioning and rehabilitation initiated if the land would not be used for future purposes. The EMP for the facility will have to be reviewed at the time of decommissioning to cater for changes made to the site and implement guidelines and mitigation measures.

9.3 ENVIRONMENTAL MANAGEMENT SYSTEM

The Proponent could implement an Environmental Management System (EMS) for their operations. An EMS is an internationally recognized and certified management system that will ensure ongoing incorporation of environmental constraints. At the heart of an EMS is the concept of continual improvement of environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks. An effective EMS would need to include the following elements:

- A stated environmental policy which sets the desired level of environmental performance;
- An environmental legal register;
- An institutional structure which sets out the responsibility, authority, lines of communication and resources needed to implement the EMS;
- Identification of environmental, safety and health training needs;
- An environmental program(s) stipulating environmental objectives and targets to be met, and work instructions and controls to be applied in order to achieve compliance with the environmental policy;
- Periodic (internal and external) audits and reviews of environmental performance and the effectiveness of the EMS; and
- The EMP.

10 CONCLUSION

The Proponent's operations will involve the import and export of metal ores and industrial cargo through Walvis Bay. This will have a positive impact on the economy of Walvis Bay and Namibia as a whole. Employment will be created and sustained at the warehouse and in the transport sector. Training and skills transfer will take place. Various businesses will be supported along the different transport routes and within Walvis Bay. The entire project will contribute to the national treasury through the payment of taxes, levies and permitting fees.

Regulations related to the handling and transport of goods as prescribed by Namibian law, or according to international best practice standards where Namibian law is lacking, must be followed during the planning and operations of the project. The necessary permits and approvals must be obtained from the relevant authorities. All hazardous substances should be handled and stored according to MSDS requirements, including storage on impenetrable surfaces and segregation of incompatible products. Noise pollution should at all times meet the prescribed Health and Safety Regulations of the Labour Act and World Health Organization requirements to prevent hearing loss and minimise nuisance. Fire prevention should be adequate, and health and safety regulations should be adhered to in accordance with the regulations pertaining to relevant laws and internationally accepted standards of operation. Any waste produced must be removed from site and disposed of at an appropriate facility, or re-used or recycled where possible. Hazardous waste must be disposed of at an approved hazardous waste disposal site.

The EMP (Section 9) should be used as an on-site reference document for the operations of the facility. Parties responsible for transgressing of the EMP should be held responsible for any rehabilitation that may need to be undertaken. The Proponent could use an in-house Health, Safety, Security and environment management system in conjunction with the EMP. All operational personnel must be taught the contents of these documents.

Should the Directorate of Environmental Affairs (DEA) find that the impacts and related mitigation measures, which have been proposed in this report are acceptable, an environmental clearance certificate may be granted to the Proponent. The environmental clearance certificate issued, based on this document, will render it a legally binding document which should be adhered to. Focus could be placed on Section 9, which includes an EMP for this project. It should be noted that the assessment process's aim is not to stop the activity, or any of its components, but to rather determine its impact and guide sustainable and responsible development as per the spirit of the EMA.

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Appendix A: Proof of Public Consultation

Notified IAPs

Name	Position	Organisation
David Uushona	Manager: Solid Waste and Environmental Management	Municipality of Walvis Bay
Nangula Amutenya	Environmental Coordinator	Municipality of Walvis Bay
Lovisa Hailaula	Environmental Officer	Municipality of Walvis Bay
Ephraim Nambahu	Town Planning Officer	Municipality of Walvis Bay
Kaylan Fisch	Manager	Neighbouring Property
Maria Kambeuge		TransPartners and Logistics
John Rhace	Manager	Neighbouring Property

IAPs Notified by Hand Delivered Letter

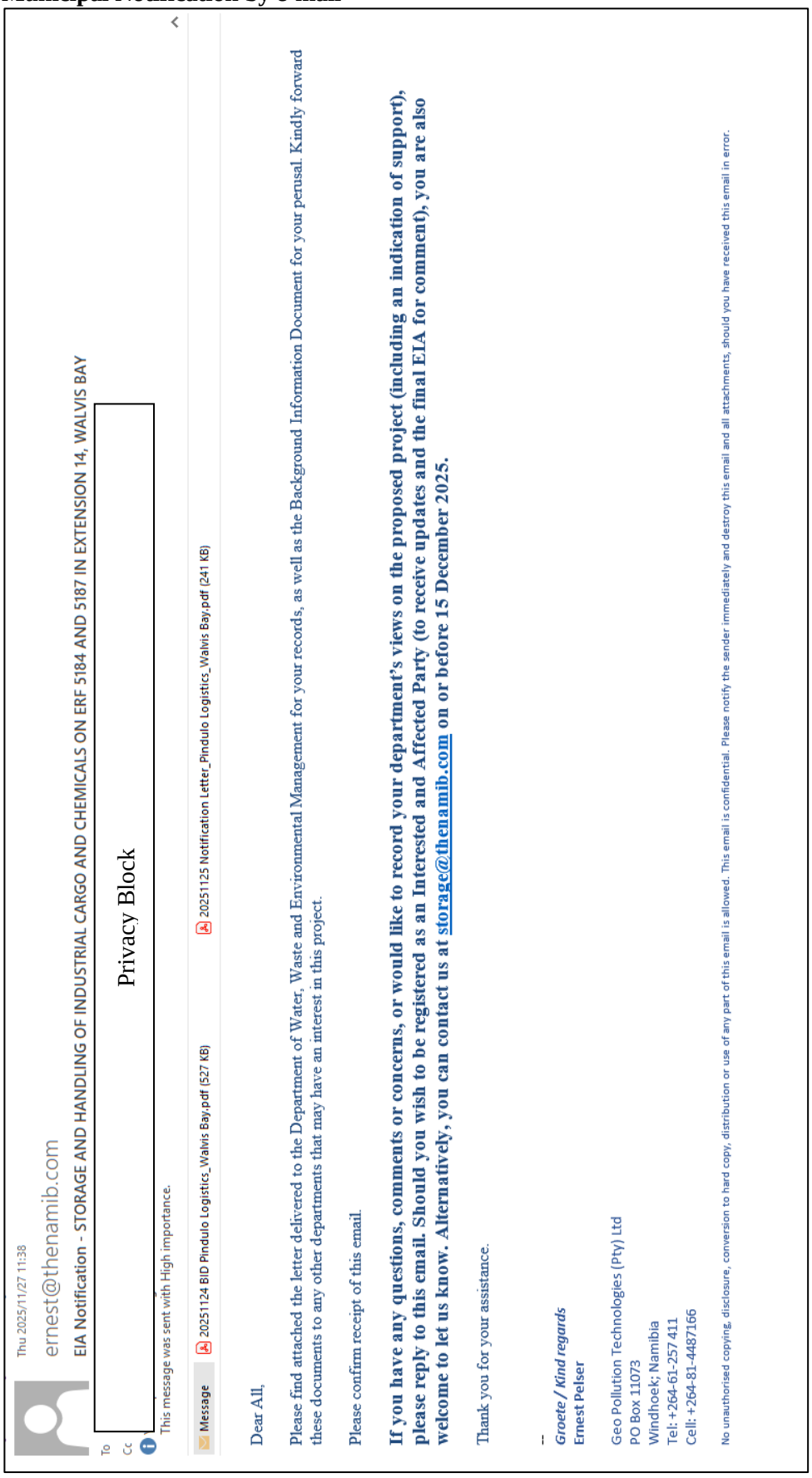
Public Participation Notification: Environmental Assessment

Pindulo Logistics Erf 5184 and 5187 in Extension 14, Walvis Bay

Name & Surname	Organisation/Address	Tel / Mobile	Email	Signature
Kaylon Fisch		Privacy Block		[signature]
Maria Kambenge	Trans Partners logistics			[signature]
John Dhac	Sanotty			[signature]

Geo Pollution Technologies — October 2025
Environmental Scoping Assessment and Environmental Management Plan for the Storage and Handling of Industrial Cargo and Chemicals on Erf 5184 and 5187 in Extension 14, Walvis Bay

Municipal Notification by e-mail



Thu 2025/11/27 11:38

ernest@thenamib.com

EIA Notification - STORAGE AND HANDLING OF INDUSTRIAL CARGO AND CHEMICALS ON ERF 5184 AND 5187 IN EXTENSION 14, WALVIS BAY

To

Cc

Privacy Block

This message was sent with High importance.

Message

20251124 BID Pindulo Logistics_Walvis Bay.pdf (527 KB)

20251125 Notification Letter_Pindulo Logistics_Walvis Bay.pdf (241 KB)

Dear All,

Please find attached the letter delivered to the Department of Water, Waste and Environmental Management for your records, as well as the Background Information Document for your perusal. Kindly forward these documents to any other departments that may have an interest in this project.

Please confirm receipt of this email.

If you have any questions, comments or concerns, or would like to record your department's views on the proposed project (including an indication of support), please reply to this email. Should you wish to be registered as an Interested and Affected Party (to receive updates and the final EIA for comment), you are also welcome to let us know. Alternatively, you can contact us at storage@thenamib.com on or before 15 December 2025.

Thank you for your assistance.

--

Groete / Kind regards

Ernest Pelser

Geo Pollution Technologies (Pty) Ltd
PO Box 11073
Windhoek; Namibia
Tel: +264-61-257 411
Cell: +264-81-4487166

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Press Notice: The Namibian Sun 1 and 8 December 2025

Sun
MONDAY 1 DECEMBER 2025
NEWS

NEWS IN SHORT

Another arrest in Shiweda case

Dr Fillemon 'Fly' Nakanduungile, a northern-based medical doctor, is the latest individual to be arrested in connection with the 17 October shooting of Justine Shiweda, a control and regional court prosecutor for the Ondangwa district.
Nakanduungile appeared in the Ondangwa Magistrate's Court on Thursday, facing charges of attempted murder and conspiracy to commit murder. The specifics of his alleged role in the attack on Shiweda remain unclear.
Shiweda was shot in the legs and attacked with an acidic substance outside her home while preparing for work last month. She has since undergone multiple surgeries.
Nakanduungile joins several other suspects, including former police officer Abner Mateus.
Nakanduungile, a general practitioner based in Ondangwa, was remanded in custody, with his case postponed to 16 March 2026. - STAFF REPORTER

Fuel prices go up

The prices of petrol and both diesel variants (diesel 50ppm and diesel 10ppm) will increase by 21 cents per litre on Wednesday, 3 December, the energy ministry announced.
In Walvis Bay, the new pump prices will be N$20.58 per litre for petrol, N$20.13 per litre for diesel 50ppm, and N$20.23 per litre for diesel 10ppm. The National Energy Fund will absorb all under-recoveries for diesel.
-STAFF REPORTER

DBN backs Rosh Pinah solar park phase 2

The Development Bank of Namibia (DBN) and Rosh Pinah Solar Park formalised their partnership for the Phase Two expansion of the Rosh Pinah Solar Park during a signing ceremony held at DBN on 25 November.
DBN has approved N$164 million to co-fund the expansion of the existing 5.4 MWp Rosh Pinah Solar Park in the //Kharas Region. This follows the Bank's earlier investment of N$58 million in 2022 toward Phase One, which has successfully demonstrated the viability of clean energy generation to support industrial and community needs.
Phase Two, an 11 MWp expansion, is being developed to meet up to 30% of the increased annual energy demand for the Rosh Pinah Zinc Mine, driven by the RP2.0 mine expansion. In addition, the project will supply up to 30% of the annual electricity needs of Rosh-Skor Township, contributing directly to the town's energy security and reliability. Construction and commissioning of the expanded plant are expected to be completed by August 2026.
-STAFF REPORTER

• ALLEGATIONS DISMISSED

Private Windhoek schools deny race-based class placement claims

The private schools say language **and performance, among other criteria, determine class groupings.**

ANNEMARIE DU TOIT
WINDHOEK


PHOTO: ALEXAS FOTOS - PIXABAY

Windhoek Afrikaanse Privaatskool (WAP) and Deutsche Höhere Privatschule (DHPS) were recently drawn into controversy after two students attended a Halloween party in blackface, wearing nametags bearing racial slurs.

Soon afterwards, a separate allegation was brought to the attention of Network Media Hub (NMH), claiming that Windhoek Gymnasium groups pupils into classes based on race.

NMH subsequently launched a broader investigation, including at WAP and DHPS, to examine class-placement practices across private schools. All schools denied the allegations made against their class placement practices.

Race has no place at school

Colette Rieckert, CEO of Windhoek Gymnasium, dismissed the allegations as completely unfounded.

"Our classes are organised solely based on the language choices of the students. Children who take Afrikaans as a first language are grouped together. That is as simple as it gets."

She added that beyond that, "our classes are mixed according to year group, and so on. It is definitely not based on race. One of our strongest points, and what we are most proud of at Windhoek Gymnasium, is the diversity within our school."

Rieckert stressed that the school's aim is to ensure that children of all races and backgrounds learn together, interact positively and respect one another and each other's cultures.

She added: "In our grades 1 to 3 and in pre-school, placement is based on mother tongue. So all Afrikaans first-language children are grouped together, which mostly includes white and coloured children, and occasionally a black child, whose first language is Afrikaans rather than English."

Rieckert added that from high school onwards, placement is determined by subject choices, and all students are mixed in these groups. From there, it's about streams, such as science or economics, she noted.

WAP groups according to results, language

At WAP, classes at the primary school level are determined by grade, with students reshuffled each year according to their exam results. From secondary school onwards, class placement is determined according to students' language choices.

Principal of WAP's secondary school, Kobus Espach, explained it as follows: "Currently we have four classes in each grade, of which two are instructed in the Afrikaans language and two in English. Learners and parents have to choose which medium of instruction they prefer."

He said, for example, this year there are about 86 Grade 7 learners who will enrol at the high school next year.

"Fifty-two of them chose Afrikaans as their preferred medium of instruction, and 37 have chosen English as the preferred language of instruction. All of them will have Afrikaans primary language and English additional language (as a minimum), and from Grade 10 they can choose and change their primary and additional languages. They can also decide to take both languages at the primary level."

When asked if these two streams share classes, Espach explained: "The subject choices never mix. The Afrikaans medium of instruction always remains just Afrikaans, while the English stream will be taught in dual language (50/50) in Grade 8, then 30/70 in Grade 9, and as of Grade 10, every class is taught in English only."

DHPS responds

NMH sent the same questions to DHPS, seeking to understand how learners are grouped at the primary level and the criteria used for high school placements.

After a delay, the school issued a brief response. "Class placement at DHPS is determined on the basis of professional, pedagogical criteria in the best interest of all students, just as at any other excellent German school abroad that has been awarded the seal of quality by the federal and state authorities."

Ex-pupils share mixed reviews

An ex-learner of DHPS, who spoke on condition of anonymity, reflected on their experience: "Honestly, I kind of strongly disliked school; a big reason was the superiority complex some of the scholars had. Some of the teachers seemed to come down harder on students of colour, speaking to them in accents or 'dumbing it down', which felt insulting."

The former learner claimed that "students of colour were often generalised as 'they' by other students. It wasn't outright racism, but there was a noticeable difference. The school didn't create an equally supportive environment for all students. The German stream naturally advantaged native speakers, and students whose mother tongue was not German had fewer opportunities, though that has apparently since changed."

The individual added that in their view, Namibian history and discussions on race and privilege were limited in the curriculum during that time.

Another former DHPS pupil remembers his time at the school with mixed emotions: "My experience was overall positive. From remedial classes that supported my cognitive challenges to after-school extramural activities that kept me busy, the school played a big role in my development."

The ex-learner recalled an incident in which an altercation with two German boys led to him being called a monkey. Losing his temper, he struck one of the boys with a foam baseball bat, breaking his front teeth. While he accepted partial responsibility, he said his parents were required to cover the medical costs, whereas the other boy, reportedly the son of a senior staff member at the time, faced no apparent consequences.

Reflecting, he added: "Looking back now as an adult, the unfair treatment left a mark on me, but despite that, my years at DHPS shaped me in many positive ways."

NEWS IN SHORT

Omuthiya threatens to take back idle plots

The Omuthiya Town Council has issued a stern ultimatum to landowners with undeveloped erven, warning that properties left idle will be repossessed if development does not commence within three months.

In a public notice dated 1 December, council instructed owners to "commence and complete the construction of a building or structure on the erven within the specified timeframe, in accordance with the Town Planning Scheme and Building Regulations."

Failure to comply, council stressed, will lead to the revocation of ownership.

The directive forms part of a broader compliance crackdown targeting illegal construction, unregistered vendors and overdue municipal accounts.

Council also ordered residents conducting unapproved building activities or who have erected illegal structures to cease operations and remove those structures immediately. Any further defiance could result in demolition, fines, penalties and legal action. Informal traders have likewise been put on notice. All vendors must register with the council between 1 December and 2 January 2026 and relocate to designated trading zones. Those found operating outside these areas or without registration will face penalties and possible confiscation of gods. At the same time, the council has called on households, businesses, schools, churches, non-profit organisations, government entities and parastatals to settle outstanding municipal debts by 28 February 2026.

Council says the measures form part of an effort to enforce order, stimulate growth, and discipline residents who have ignored regulations for too long.

kenya@nmh-hub.com.na
- KENYA KAMBOWE

Rehoboth man fatally stabs himself after attacking girlfriend, another man

A 26-year-old Rehoboth man allegedly fatally stabbed himself after attacking his girlfriend and a man he found at her house on Friday morning, police reported.

The Namibian Police said George Haubab arrived at the residence on 2nd Street, Block E, around 06:00, where he reportedly discovered his girlfriend with another man. Haubab allegedly stabbed the male companion with an Okapi knife. The man survived but sustained serious injuries.

Haubab then reportedly attacked his girlfriend, stabbing her multiple times. Other residents attempted to intervene after hearing screams but reportedly fled when Haubab threatened them with the knife.

He subsequently stabbed himself and collapsed nearby, dying at the scene. Both surviving victims were rushed to a Windhoek hospital and remain in critical condition. The deceased's next of kin have been informed, and police investigations are ongoing.

- STAFF REPORTER

• A SINGLE ATTACK IS AN ATTACK ON A FUNCTIONING JUSTICE SYSTEM

Rising violent crime casts shadow of harm on Namibia's judicial officers

Lower court officers warn that unlike higher court judges, they are on their own when it comes to robust protections when dealing with sensitive, high-risk cases.

STAFF REPORTER
WINDHOEK

South Africa has seen this script before, and Namibia is now beginning to recognise its own version.

In 2021, South African whistleblower Babita Deokaran was shot twelve times outside her Johannesburg home after exposing procurement corruption in the Gauteng health department.

Her murder signalled the brutal ways criminal networks retaliate when an honest official becomes an obstacle.

Namibia is now confronting a similar problem.

On 17 October, northern-based public prosecutor Justine Shiweda was ambushed, shot in both legs and doused with acid.

Investigators believe the assault followed her refusal of a N$100 000 bribe to approve bail for an accused person.

The attempted intimidation was direct and unambiguous – justice was not being challenged through legal argument but through violence.

Namibia has long regarded itself as insulated from the more ruthless criminal reprisals seen elsewhere in the region.

Shiweda's attack suggests that insulation is fading.

PAID WITH HER LIFE: Babita Deokaran was shot 12 times at her Johannesburg home in 2021 after uncovering massive corruption at Tembisa Hospital. PHOTO: FACEBOOK.

Visible trends

Her case matters not only for the vicious brutality involved but also because it exposes the vulnerability of judicial officers responsible for prosecuting serious crime.

The assault was deliberate and targeted, reflecting tactics increasingly used by cross-border criminal networks, where threats replace persuasion and violence replaces legal contestation.

An attack on a prosecutor is not just an attack on an individual; it is an attack on a functioning justice system.

Once fear enters the decision-making process, the rule of law becomes fragile.

The parallels with Deokaran are challenging to ignore. She was killed for not yielding to corruption.

Shiweda was attacked for the same reason. Their stories illustrate a shared warning: when integrity is punished, corruption escalates.

Namibia has not yet reached South Africa's level of organised crime intimidation, but the trends are becoming increasingly evident.

Syndicates operate across borders, hired attackers move with ease, and targeted violence is no longer theoretical.

The shooting of a prosecutor – followed by the use of acid as a brutal tool of punishment – signals the crossing of a line that Namibia has historically hoped would hold.

This incident also exposes weaknesses in the bail process and the growing risk of influence over it.

Compromised justice system

Shiweda's refusal of a bribe may indicate why some suspects are released quickly and why serious offenders sometimes return to communities within days.

Where intimidation exists, bail decisions become vulnerable.

When a judicial officer must choose between applying the law and protecting their life, the integrity of the justice system is compromised.

If refusing a bribe leads to physical harm, the pressure to accept becomes harder to resist.

A state prosecutor, interviewed for a Namibian Sun story, which will appear for publication on Monday, 8 December, described the danger of the work:

"To be honest with you, our job is very risky because of all the sensitive cases that we deal with. We deal with people who have committed murder, rape, or even major fraud," he said.

He added that many criminals have dependants who stand to lose support if convictions hold, increasing the risk of retaliation.

"Some of these people are breadwinners, and they have relatives in custody. If someone was providing for you, you don't want them to be out there. You have to watch your back."

He explained that, unlike prosecutors in Botswana, Namibian prosecutors do not have personal security.

"In Namibia, only judges are guarded. Magistrates and prosecutors have nothing. You are on your own."

His remarks underline the core problem: the system is challenged not only in courtrooms but also in the lives of those who operate it.

Physical protection

Without adequate protection, prosecutors are asked to confront criminal networks armed only with legal authority – and this authority is not bulletproof.

Shiweda's assault forces Namibia to confront a complex reality.

Justice can no longer rely solely on legislation; it requires physical protection, institutional reinforcement and political priority.

Prosecutors, magistrates and investigators cannot uphold the law if they must fear retribution for doing so. Without stronger safeguards, criminals will continue to test the system, and even a single instance of intimidation emboldens those who wish to weaken it.

Namibia now faces a defining question: will it protect those who protect the law? If it does not, the future of justice may be shaped not by evidence and argument, but by fear.

Vulnerable society

Namibia has recorded several instances in which accused persons committed violent crimes – including murder – while out on bail.

In Rehoboth, police confirmed that a 29-year-old suspect accused of killing 71-year-old Anna Wemmert in 2024 was already on bail for a previous alleged murder when the crime occurred.

A similar pattern emerged in Windhoek, where City Police officer John Shetekela was out on bail for the alleged murder of teenager Mandela Ramakhuha when he was later arrested for allegedly killing his wife.

High Court judgment CC 06/2016 also details a case in which a man, released on bail for rape in 2013, allegedly raped and murdered another woman in 2014.

SWAPO REGAINS FULL CONTROL OF ERONGO REGIONAL COUNCIL

ADAM HARTMAN
SWAKOPMUND

Erongo's newly elected regional councillors were sworn in at Swakopmund on Friday, officially marking the start of the 2025–2030 term and confirming Swapo's return to full control of the regional council.

The ceremony was presided over by Swakopmund magistrate Conchita Olivier, who administered the oath of office to all seven councillors: Victor Maswahu (Swakopmund constituency), Ruben Shikongo (Walvis Bay Rural), Albertina Nkoshi (Walvis Bay Urban), Abiud Kapere (Arandis), Inecia Brand (Daures), Hendrina Gebhardt (Omaruru) and Lazarus Kanelombe (Karibib).

All seven councillors were elected under the Swapo Party banner, replacing the outgoing council comprised of three Swapo, three Independent Patriots for Change (IPC) and one United Democratic Front (UDF) representative.

Following the swearing-in ceremony, councillors proceeded with the statutory election of the management committee. Kanelombe was elected to the committee alongside Shikongo and Nkoshi, before being chosen unopposed as chairperson.

NEW HEAD: Lazarus Kanelombe, newly elected chairperson of the Erongo Regional Council's management committee. PHOTO: ADAM HARTMAN

The Electoral Commission of Namibia (ECN), represented by regional electoral officer Aune Ndakeva, oversaw the election of the region's three National Council representatives. Maswahu, Brand and Kapere were duly elected.

Delivering his first remarks as chairperson, Kanelombe said he accepted the position "with a deep sense of responsibility," pledging to "lead with fairness, to listen with intent, and to walk tirelessly alongside each councillor here, for the betterment of every community."

He urged unity and collaboration among councillors, reminding them: "There is no 'I' in a team."

Press Notice: Die Republikein 1 and 8 December 2025

KONTAKPERSONE
GENL. MURTALA MUHAMMEDRYLAAN. POSBUS 3436, WINDHOEK
TEL: 061 297 2000 | VOLG ONS OP:
ISSN 1560-9448

NUUSREDAKTEUR
Henriette Lamprecht
081 350 3801 / 061 297 2000
henriette@republikein.com.na

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WEER

BINNELAND: Sonnig en warm tot baie warm in die sentrale en suidelike gebiede, maar gedeeltelik bewolk en warm tot baie warm met enkele donderbuie in die Noordooste.

KUS: Gedeeltelik bewolk en matig tot warm met miskolle aanvanklik.

GETYE BY WALVISBAAI: L: 05:54 **H:** 12:22 **L:** 18:41

VOORUITSIGTE

WINDHOEK	15°	34°
RUNDU	19°	35°
OSHAKATI	21°	37°
GOBABIS	20°	36°
MARIENTAL	20°	36°
KEETMANSHOOP	20°	36°
WALVISBAAI	14°	25°
LUANDA	24°	29°
JOHANNESBURG	11°	21°
KAAPSTAD	15°	26°

Bloedneus

VAN BL. 1

Namibië het toestemming gevra om 'n beheerde stelsel te implementeer wat die handel in renosterhoring uit wettig verkrygde bronne moontlik sou maak – soos horings wat onder veeartsenykundige toesig gedeeltelik onthoring word of horings wat van dooie diere herwin word.

In sy voorstel het Namibië aangevoer dat sulke handel volhoubare fondse vir renosterbeskerming kan genereer terwyl dit die swartmark wat stropery oraloor Suider-Afrika aanwakker, ondermyn.

HoRN.nam het gepleit dat Namibië reeds die moniteringstelsels, forensiese kapasiteit en toesigmeganismes het wat nodig is om 'n streng beheerde wettige handel te administreer.

Onder die voorstel sou slegs horings wat verkry word deur gedokumenteerde onthoring van lewende diere, gerugsteun deur volledige DNS-rekords, kwalifiseer vir handel.

"Elke horing word met 'n mikroskyfie toegerus, daar word gereeld DNS-monsters van horings geneem en gedokumenteer en deur 'n ononderbroke bewaringsketting opgespoor word, met onafhanklike ouditering en Cites-verifikasie wat deursigtigheid verseker," het hul verklaring gelui.

Muller het gesê die sleutel tot die renosterbewaarders se vertroue is RhODIS®, die Renoster-DNS-indeksstelsel wat ontwikkel is deur die Universiteit van Pretoria se veeartsenykundige genetika laboratorium in Suid-Afrika. Die databasis bevat meer as 40 000 DNS-profiele van renosters en is in meer as 120 suksesvolle ondersoeke na wildmisdaad oraloor Namibië, Suid-Afrika, Zimbabwe, Mosambiek, Eswatini en Kenia gebruik.

IVOOR

Namibië het ook goedkeuring by Cites gesoek om meer as 44 000 kilogram rou ivoor uit sy regeringsbeheerde voorrade te verkoop. Die ivoor, wat uit olifanttande en -stukke bestaan, kom slegs van olifante wat weens natuurlike oorsake gevrek het of as probleemdiere van kant gemaak is.

Namibië het gevra dat hierdie ivoor verhandel word met internasionale vennote wat deur Cites goedgekeur is as vennote met sterk binnelandse wette en beheermaatreëls om te verseker dat die ivoor nie heruitgevoer word nie en verantwoordelik bestuur word.

Namibië het aangevoer dat sy olifantbevolking stabiel is, aanhou groei en van ongeveer 7 500 diere in 1995 tot meer as 25 600 in 2023 toegeneem het. Volgens regeringsdata is onwettige stropery nie 'n beduidende bedreiging nie.

Ondanks die pleidooie, was die stemme gekant teen onderskeidelik die handel in ivoor 78,64% en renosterhorings 65,31% by verre weer in die meerderheid. – francoise@nmh.com.na

Verkiesings

VAN BL. 1

Ouer partye soos die Republican Party (RP), Swanu, Rally for Democracy and Progress (RDP) en United People's Movement (UPM) het steeds steun verloor, met die RDP wat tot 0,02% gedaal het – 'n dramatiese agteruitgang van sy 4,22%-aandeel in 2015.

Die verkiesings in plaaslike owerhede het baie skerper verskuiwings getoon. Swapo het van 39,85% in 2020 tot 52,4% in 2025 gestyg en 141 181 stemme gewen – 'n dramatiese toename van 12,55 persentasiepunte en 'n beslissende ommekeer van sy stedelike terugslae in 2020.

UDF het van 2,98% tot 4,14% gestyg en 11 166 stemme verseker. NDP het van 0,08% tot 0,44% toegeneem. NEFF het van 0,18% tot 0,68% geklim. AR het 'n sterk debuut gemaak met 4,07% (10 954 stemme), terwyl BCP met 0,49% toegetree het.

A Right to Shelter Foundation (A-RTS-N) het 0,83% (2 248 stemme) verseker, wat ook 'n noemenswaardige eerste verskyning was.

VERLOORDERS

Die grootste verliese is deur LPM aangeteken, wat van 14,21% tot 5,85% (15 749 stemme) gedaal het, 'n afname van 8,36 persentasiepunte – die grootste daling van enige party op plaaslike vlak.

IPC het van 21,20% tot 15,01% (40 448 stemme) gedaal, 'n afname van 6,19 punte, maar steeds sterk genoeg om die tweede grootste mag nasionaal te bly.

PDM het van 7,93% tot 5,24% (14 111 stemme) gedaal, wat die dekade lange daling van 9,19% in 2015 verleng. Nudo het van 2,25% tot 1,77% (4 771 stemme) gedaal, terwyl APP marginaal gedaal het van 0,59% tot 0,46%.

Kleiner en ouer partye soos RP, RDP, Swanu en UPM het langtermyndalings voortgesit, met RDP nou op 0,09% – 'n beduidende ineenstorting van 3,08% in 2015.

Landswyd het Swapo die sterkste party in beide verkiesings van streekrade en plaaslike owerhede gebly. FOTO ARGIEF

ONAFHANKLIKES

Die streekraadsverkiesings het verskeie noemenswaardige prestasies deur onafhanklikes opgelewer, waarvan sommige geregistreerde partye oortref het.

Mbangu Nginga Paulus het die beste onafhanklike gebly, met 'n styging van 0,36% in 2020 tot 0,51% in 2025, wat 3 057 stemme verwerf het. Kashumali Petrus Ndumba het gevolg met 0,45%. Kuzeeko Veronia Gomotsang het 0,38% behaal, wat haar bo verskeie kleiner partye plaas.

Die sterkste onafhanklikes het verskeie geregistreerde partye getroef, insluitend RDP, die Namibia Progressive Party (NAPPA), die Congres of Democrats (CoD) en UPM, wat die volgehoue relevansie van gemeenskapsgewortelde kandidate bevestig.

Verkiesings in plaaslike owerhede het ruimte gebied vir burgerlike organisasies en inwonersgroepe, waarvan verskeie betekenisvolle steun gekry het. A Right to Shelter-stigting het 2 248 stemme (0,83%) verwerf, wat dit een van die mees sigbare nuwe burgerlike rolspelers landswyd maak.

Die Swakopmund Residents Association het sy plaaslike invloed met 2 175 stemme (0,81%) voortgesit.

Hierdie uitslae toon dat gestruktureerde plaaslike verenigings 'n vastrapplek in Namibië se stedelike politieke landskap behou en dikwels kleiner politieke partye in terme van steun en sigbaarheid oortref.

OPKOMS

Die opkoms in streekraadsverkiesings het 40,7% in 2025 bereik, wat 'n geleidelike styging van 36,5% in 2015 en 38,3% in 2020 voortsit.

'n Totaal van 609 013 kruisies is op stembriewe deur 1 499 449 geregistreerde kiesers getrek, met 603 067 geldig en 5 946 bedorwe.

Hierdie groeiende herstel dui op 'n toenemende oortuiging dat streekrade dienslewering meer direk beïnvloed.

Die opkoms van plaaslike owerhede het in die teenoorgestelde rigting beweeg. In 2025 het dit tot 36,29% gedaal, 'n afname van die 43,2% in 2020 en onder die 39,6% wat in 2015 aangeteken is.

Uit 752 043 geregistreerde kiesers het slegs 272 942 gestem, met 269 430 stembriewe geldig en 3 512 bedorwe.

Byna 'n halfmiljoen geregistreerde kiesers het nie gestem nie, wat die groeiende stedelike afsydigheid en ontnugtering van kiesers met munisipale owerhede se prestasie benadruk.

Landswyd het Swapo die sterkste party in beide verkiesings gebly, ondersteun deur 382 067 stemme in streekrade en 141 181 stemme in plaaslike owerhede. Die IPC het die tweede plek beklee met 74 176 stemme in streekrade en 40 448 stemme in plaaslike owerhede.

Die PDM het nasionaal in die derde plek gebly met 31 388 stemme in streekrade en 14 111 stemme in plaaslike owerhede, gevolg deur die LPM en die UDF.

– republikein@republikein.com.na

KONTAKPERSONE

NUUSREDAKTEUR
Henriette Lamprecht
081 350 3801 /
061 297 2000
henriette@republikein.com.na

DIAMOND SQUARE, RUHRSTRAAT 7. POSBUS 3436, WINDHOEK
TEL: 061 297 2000 | VOLG ONS OP: ISSN 1560-9448

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WEER

BINNELAND: Gedeeltelik bewolk en warm tot baie warm in die Noorde met wyd-verspreide donderbuie en reën, andersins gedeeltelik bewolk en baie tot bloedig warm met verspreide donderbuie buiten in die verre suidweste.
KUS: Gedeeltelik bewolk en matig tot warm met miskolle in die oggend.
GETYE BY WALVISBAAI: H: 05:38 L: 11:38
H: 18:08

VOORUITSIGTE

WINDHOEK	16°	26°
RUNDU	19°	27°
OSHAKATI	19°	25°
GOBABIS	19°	30°
MARIENTAL	20°	35°
KEETMANSHOOP	21°	36°
WALVISBAAI	17°	23°
LUANDA	23°	29°
JOHANNESBURG	14°	24°
KAAPSTAD	16°	26°

Sowat 170 kinders het 'n maaltyd en 'n geskenk van die Cradle of Hope Foundation ontvang.
FOTO'S LEANDREA MOUERS

Kinderharte is verbly met 'n spesiale geskenk van die Cradle of Hope Foundation.

Lughawens

VAN BL. 1

In van die kommentaar op die foto's op die Facebookblad Spotlighting Namibia word ook na die gebied om die lughawe verwys wat 'n "skande" is.
"Vervalle geboue, vliegtuigloodse en om nie van die walglike stand van sake van die aangrensende weermagbarakke te vergeet nie. Ongelukkig sal niks binnekort gebeur of verander nie, beslis nie in die volgende tien jaar nie. Die enigste verandering sal net nog verval wees," lui van die kommentaar.
Kamati sê egter vordering is wel al by die Mpacha-lughawe op Katima Mulilo gemaak, met die aanloopbaan wat teen 'n koste van N$96 miljoen gerehabiliteer is. Dit is genoodsaak om die lughawe aan die veiligheidsstandaarde vir burgerlike lugvaart te laat voldoen.
Volgens die NAC is reeds met 'n verkrygingsproses begin wat nie net opgraderings by die lughawe op Katima Mulilo nie, maar ook Rundu en Lüderitz sal lei. Die opgradering sluit nuwe terminaalgeboue en ondersteunende infrastruktuur in. Kamati sê die proses sal sodra dit gefinaliseer is, bepaal hoeveel die onderskeie projekte sal kos, hoe dit gefinansier gaan word en wat die volgende stappe is.
Die NAC is volgens Kamati ook van voorneme om grondoordragte vir die Katima- en Rundu-lughawens te versnel. Die modernisering van die Hosea Kutako Internasionale Lughawe gaan ook met die beplande Terminaal 3 voort. Die verbeterings en opgraderings is volgens hom deel van 'n groter poging om Namibië se lughawenetwerk te versterk, in pas met die regering se voorneme om weer 'n nasionale lugredery te laat herleef.
Op 'n vraag watter streekslughawens voorkeur vir opgraderings kry, het Kamati gesê dit word deur nasionale ontwikkelingsdoelwitte en die NAC se strategiese plan, eerder as net passasiersgetalle of verkeersvolumes gelei.
FlyNamibia het op sy beurt verwys na wat dié verbeterings aan lughawens in streke nie net vir lugrederye en hul passasiers nie, maar ook vir gemeenskappe, die land en in veral toerisme kan beteken. Volgens die lugredery is betroubare streekslughawens "noodsaaklik om die volle potensiaal" van toerisme en landelike ekonomiese groei te ontsluit. Dit het die Zambezistreek as een van Namibië se mees opwindende toerismefronte beskryf en gesê die lugredery ondersteun ten volle planne om die Mpacha-lughawe op Katima Mulilo tot internasionale status op te gradeer. Volgens die lugredery sal die vermoë om streeks- en langafstandvlugte direk op Katima Mulilo te ontvang, toerisme en handel regoor die Kavango-Zambezi-oorgrensbewaringsgebied (KAZA) hervorm en werklike voordele vir plaaslike gemeenskappe inhou. Die gebied is geleë in die opvangsgebied van die (O)Kavango- en Zambezirivier. Dit dek gebiede in die vyf lidlande van Namibië, Angola, Botswana, Zambië en Zimbabwe. Dit beslaan ongeveer 520 000 vierkante kilometer en is die grootste beskermde oorgrensbewaringsgebied in die wêreld.
Volgens FlyNamibia werk die lugredery nou saam met die NAC en die ministerie van werke en vervoer en bly dit verbind tot die ondersteuning van pogings wat "'n sterker, meer verbonde Namibië" bou.

phillipus@nmh-hub.com.na

FOTO'S SPOTLIGHTING NAMIBIA

Pastoor

VAN BL. 1

Sy gevoelens teenoor dié wat oor hom kla en hom teengaan, glip volgens beswaardes ook tydens eredienste uit met sy preke wat eerder glo oor sy persoonlike griewe gaan as om 'n preek te lewer. Met verwysing na troues en begrafnisse beweer die beswaardes "in die geskiedenis van Tanidare-gemeente" het betalings van die bruidspaar "nog nooit die koffers van die gemeente bereik" wanneer huwelikseremonies voltrek word nie. Omdat Cloete nie meer 'n lisensie het om huweliksertifikate te onderteken en uit te reik nie, gebruik hy na bewering die lisensies van verskillende pastore wat die sertifikate mag onderteken.
Volgens die beswaardes is alle betalings vir huweliksertifikate glo direk in Cloete se rekening betaal wat dit dan weer aan die ander pastore moes betaal. Die klagtes verwys en sluit ook videomateriaal in wat op sosiale media gesirkuleer het en waar Cloete na bewering alkohol sou misbruik. Na bewering het hy ook nie tydens sy ampstermyn by die gemeente ooit enige plase of buite kerke onder sy jurisdiksie en as deel van sy werksverpligtinge besoek nie. Cloete het teen druktyd nie op enige navrae om kommentaar gereageer nie.

- henriette@republikein.com.na

Die Tanidare-gemeente in Soweto, Windhoek. FOTO'S VERSKAF

Van die klagtes teen Cloete is by die kerk opgeplak.

Site Notice


GEO
Pollution
Technologies
Namibia
PUBLIC NOTICE:
Environmental Scoping Assessment and Environmental Management Plan for the Storage and Handling of Industrial Cargo and Chemicals on Erf 5184 and 5187 in Extension 14, Walvis Bay
In terms of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012), notice is hereby given to all potential interested and affected parties that an application will be made with the environmental commissioner for an environmental clearance certificate for the following:
Project: Storage and Handling of Industrial Cargo and Chemicals on Erf 5184 and 5187 in Extension 14, Walvis Bay
Proponent: Pindulo Logistics (Pty) Ltd
Environmental Practitioner: Geo Pollution Technologies (Pty) Ltd
The Proponent intends to utilise the newly purpose-built warehouse on the property to receive and temporarily store industrial cargo and chemicals for various clients within southern Africa as well as for export to international clients. The main cargo to be handled and stored will comprise bulk bags and containers of various industrial chemicals and minerals, such as soda ash, caustic soda, flocculant and fertiliser, as well as cement, mining-related mineral concentrates, metal ores and products, acids, hydrocarbons, coals and other bulk commodities. All storage will mainly take place inside the warehouses, but cargo that will not be affected by moisture or the sun may also be stored uncovered in the yard. No bulk cargo will be received and handled and all cargo will be bagged, bundled or in containers. All cargo will imported or exported via the Port of Walvis Bay and supplied as per customer demands.
Geo Pollution Technologies (Pty) Ltd was appointed by the Proponent to conduct an environmental assessment for the proposed project. As part of the assessment we consult with interested and affected parties. You are hereby invited to register as an interested and affected party with Geo Pollution Technologies. Registration provides you with an opportunity to submit comments, issues or concerns related to the facility, for consideration in the environmental assessment. Please send your written registration or comments to: E-mail: storage@thenamib.com
Should you require any additional information please contact Geo Pollution Technologies at
Tel: +264-81-1452164
Registration and comments should reach us by the 15 December 2025.
Thank you in advance.
Sincerely,
Geo Pollution Technologies

Appendix B: Emergency Response Documentation

Emergency Response Plan

pindulo NAMIBIA	**Document Number:** NAM185	**Revision Number:** 01 **Revision Date:** 12-Dec-25	**Page:** 1 of 15
	PINDULO LOGISTICS EMERGENCY RESPONSE PLAN (ERP)		
	Compiled By: SHEQ Manager	**Issue Date:** 13-Jan-2025	

	NAME	DESIGNATION	SIGNATURE	DATE
APPROVED BY	A. Eksteen	General Manager		12/12/2025
NEXT REVIEW DATE	**Dec 2028**			
DISTRIBUTION	ALL PINDULO STAFF & CONTRACTORS			

Date of Revision	Revision Number	Description of Changes	Name of Reviewer	Title and signature
12/12/2025	01	IMS Format	R. Nuwuses	

IN THE EVENT OF AN EMERGENCY, PROCEED IMMEDIATELY TO SECTION 5 AND EXECUTE THE STIPULATED ACTIONS.

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1. Purpose

The Emergency Response Plan (ERP) has been developed to provide guiding principles and standards for responding to any emergency and crisis on the people, assets, environment, business continuity, and reputation of Pindulo Logistics (PL).

The safety and well-being of employees, visitors, and contractors must be prioritized when planning for an emergency.

2. Scope

This plan applies to all Pindulo Logistics operational sites.

3. Definitions

3.1	"All Clear to Return to Normal Operations"	A signal is given by the Head of Department (HOD)/On-Scene Commander or the Chief Fire Officer from the Fire Brigade, signaling for workers to return to their place of work after the emergency is over. Only the On–Scene Commander is authorized to declare the End of an Emergency.
3.2	On-scene Commander (OSC)	The individual responsible for overall leadership, coordination, and decision-making at the site of an emergency or incident. In case of an emergency, the most senior-level PL personnel will be the On-scene Commander until local emergency services come to scene.

4. Emergency Criteria & Command Structure

In case of an incident, notify your immediate Supervisor and the Safety, Health, Environment and Quality (SHEQ) Manager immediately.

4.1	Level 1 Emergency (Minor)	The emergency is handled by PL personnel and no external resources are required. First Aid Case (FAC), Minor vehicle-related incident, Level 1 environmental incident, etc.
4.2	Level 2 Emergency (Moderate)	Significant impact on PL but requires response support outside of PL at the local level (NAMPORT, Fire Brigade, etc.). Medical Treatment Case (MTC), Lost Time Injury (LTI), Reversible Occupational Health Case, Level 2 environmental incident etc.
4.3	Level 3 Emergency (Major)	Substantial impact on PL requiring regional assistance (Erongo Region). Fatality, Irreversible Occupational Health Cases, Level 3 environmental incidents, etc.
4.4	Crisis	Catastrophic events caused multiple fatalities, permanent disability, severe environmental harm, or major quality failure requiring national assistance.

4.5 Emergency Scenarios & Emergency Response Flow Chart

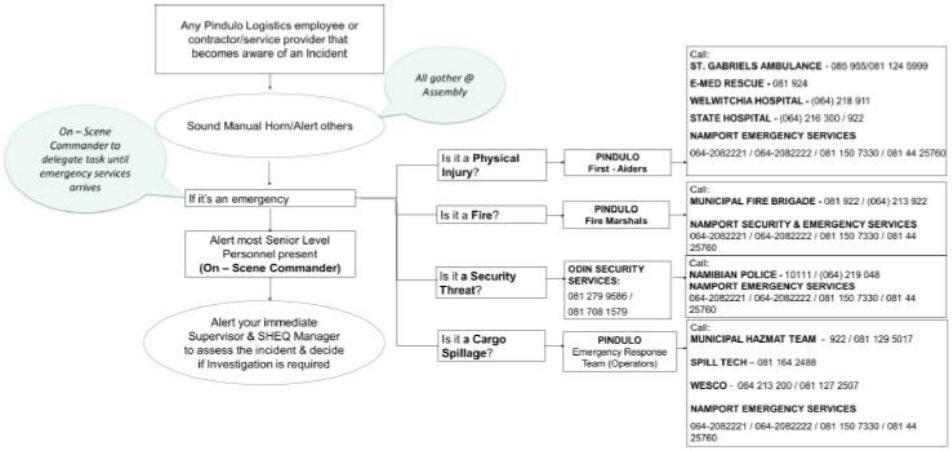


Figure 1: Emergency scenarios and contact numbers

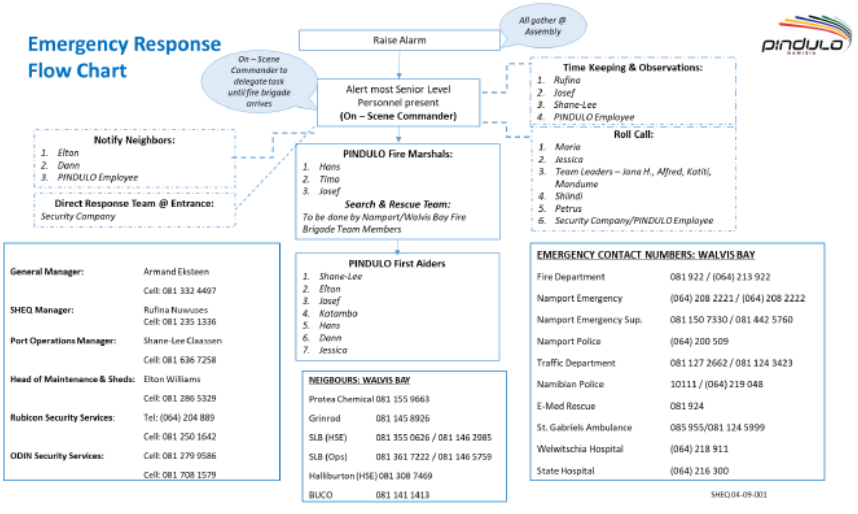


Figure 2: Emergency Response Flow Chart

5. **Procedure**

- With the guidance of the emergency response flow chart above (Figure 2), in case of an emergency,

Immediately

1. Press the nearest Emergency Button / sound the Manual Horn / Alert the others.
2. All staff to move to the Emergency Assembly Point.
3. Alert the Most Senior-Level Pindulo Logistics personnel present, who will take charge and delegate tasks (On-Scene Commander) until the Local Emergencies Services arrive.
4. Security personnel to man gates to allow and direct emergency vehicles.
5. In case of a fire, the Fire Team is to assess the size of the fire and attempt to extinguish it with fire extinguishers if the fire appears to be manageable.
6. Call the Fire Brigade. *Once the Fire Brigade arrives, they will take charge and employees should assist them if requested.*
7. Evacuate all staff if necessary *(see Section 7).*
8. Call the Police or ambulance if necessary/applicable. Annexure 2: Emergency Notification Contacts
9. In the event of an explosion, call the Bomb Squad to search the premises. *No staff should search the premises!*
10. Evacuate vehicles, if safe and possible.
11. Start events log (Refer to Events Log Sheet, Annexure 1)

As soon as possible:

12. Ensure the Fire Brigade/Ambulance entrance is clear of obstructions. *(Advise fire brigade of willingness to assist with manpower)*
13. Trained First – aiders to attend to injuries until Local Emergency Services arrive
14. Inform the Traffic Department if necessary/applicable.
15. Inform Local Police if there is any danger to people or property

16. Inform Neighbours of any danger to them.
17. Perform roll call & account for all staff, visitors, contractors etc. on site
18. Await the "ALL CLEAR & RE-ENTRY" command & de-briefing from On – Scene Commander before allowing staff back to work.
19. Obtain statements from witnesses, preferably in writing
20. Report the incident to the SHEQ Department.

6. Evacuation

Depending on the severity and extent of the emergency, evacuation of personnel may be considered.

The On-Scene Commander will determine this action.

Vehicles will not be evacuated unless such action is intended to reduce the effects of the emergency. In this situation, the Traffic Department will control and direct traffic.

NB: A record of all personnel withdrawn from the site should be made and ensure that knowledge of those remaining is documented

Annexure 1: Events Log

Events Log 1/2

Drill/Event Scenario:	**Name of Observer:**
Date of Drill/Event:	**Designation:**
Location:	**Division:**
METHODOLOGY / PROCEDURE FOLLOWED	**Yes / No**

#	Checkpoints	Yes/No/N/A	Comment (s)
1.1.	Exact time of alarm activation		
1.2.	Is the siren audible?		
1.3.	Were fire marshals active?		
1.4.	Were the first–aiders active?		
1.5.	Has everyone gathered at the Emergency Assembly?		
1.6.	Time of arrival of the last person to evacuate		
1.7.	Are roll calls done?		
1.8.	Exact time of roll calls started		
1.9.	Exact time of roll calls ended		

1.10.	Was the roll call process effective & efficient?		
1.11.	Who was the On-scene commander?		
1.12.	Were the emergency services notified?		
1.13.	Were the neighbors notified?		

Time	Description

Events Log 2/2

Strength	Area of Improvement

IMPROVEMENT ACTION PLAN

Action ID	Action	By Whom?	By When?

Observer Name & Signature: **Date:**

Annexure 2: Emergency Notification Contacts

Category	Company/ Name/ Position	Contact no 1	Contact no 2
1. PINDULO LOGISTICS			
General Manager	Armand Eksteen	081 332 4497	
Business Development Director	Tautinge (Tau) Festus	081 201 8039	
SHEQ Manager	Rufina Nuwuses	081 235 1336	
Port Operations Manager	Shane – Lee Claassen	081 636 7258	
Contracts Manager	Santania Gerber	081 260 8329	
Commercial Manager	Gloudie Olivier	081 366 4507	
Financial Manager	Marina Welthagen	081 292 6765	
Head of Maintenance & Sheds	Elton Williams	081 286 5329	
Port Operations Administrator	Martin Hambinga	081 578 8994	
Inventory Controller	Dann van Zyl	081 250 1931	
Inventory Controller	Ricardo Haneb	081 450 0258	
2. PINDULO BOTSWANA			
Site Manager	Monthusi Obonetse	+267 74 155 277	
Botswana	Ghanzi District Council	Tel: +2676596211	
Botswana	Ministry of Employment Labour Productivity and Skills Development	Tel: +267 373 2700	+267 373 2600
3. WALVIS BAY LOCAL AUTHORITIES			

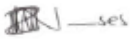
Emergency Nr. For Cell phones		112	922
Ambulance	St. Gabriel E-Med Rescue State Hospital	085 955 081 924 081 150 1739	081 124 5999 922
Hospital	Welwitschia Hospital State Hospital	064 218 911 064 216 300	 922
Fire Brigade	T. E Kathindi Standby	081 122 0833 081 122 0888	081 922
Police	Walvis Bay Police Kuisebmond Police Narraville Police Harbour Police City Police (Crime Prevention – Office Hours) City Police (Traffic Hours)	064 219 001 10111 064 219 070 064 219 071 064 200 509 219 0722 219 000	064 219 048 081 129 4662
Nampol Traffic	Traffic Officer	081 22 028 391 081 125 0206	081 202 8391
Municipal Traffic	Traffic Officer	064 201 3241 / 081 1272662	081 122 0821 / 081 122 0822
Namport **Namport**	Security & Emergency Services **(Duty Station)** **Emergency Supervisor** Ms. H. Vries **Security Supervisor** Mr. James **Crime & Tech Supervisor** Mrs. B. Khaibes	064 208 2221 081 150 7330 081 122 0160 081 435 1067	064 208 2222 081 44 25760 081 365 1856

	Port Police Port Control	064 200 509 064 208 2263	
Walvis Bay Municipality	Water Disruptions/ Leaks	081 128 8328	201 3111
Walvis Bay Municipality	Sewerage System	081 128 8324	
Walvis Bay Municipality	Refuse Removal	081 129 9316	
Walvis Bay Municipality	Hazardous waste	081 129 5017	
Erongo Red	Electricity Department (after hours) Walvis Bay Head Office Call Centre Call Centre Toll Free	064 217 600 21 4600 081 166 5058 081 9600	081 129 3875
Disaster Management Committee	Charles Neidel	081 125 8581	
Ministry of Labour, Industrial Relations and Employment Creation		061 206 6111	
Category	**Company/ Name/ Position**	**Contact no 1**	**Contact no 2**
4. EMERGENCY CONTRACTORS			
Spill Recovery	Municipal Hazmat Team	922	081 129 5017
Spill Recovery	Spill Tech	081 164 2488	
Spill Recovery	WESCO	064 213 200	081 127 2507
Security	ODIN Security Services Rubicon Security (Alarm System)	081 279 9586 (064) 204 889	081 708 1579 081 250 1642
HUDSON TRANSPORT **Managing Director**	Adri Hudson	+27 83 456 5958	

Operations Manager **Namibia Fleet Manager**	Jaco Van Rensburg Bertus Marais	+27 82 496 1661 081 685 3317	
DE VRE TRANSPORT			
Workshop Supervisor	Marlon Ramokgopi	+267 74019441	+267 396 0644
SHEQ Officer	Anele Ngake	+267 75493524	+267 396 0644
Company	**Name/ Position**	**Contact no 1**	**Contact no 2**
5. NEIGBOURING SITE			
Protea Chemical	Herman Sanderson	081 155 9663	
Grinrod	Enrico van Wyk	081 145 8926	
Buco	Jenine	081 141 1413	
SLB	HSE Specialist	081 355 0626	081 146 2985
SLB	Facility Supervisor	081 361 7222	081 144 7145
SLB	LMP/ Bulk Plant Supervisors:	081 146 5759	081 146 5760
Halliburton	**HSE –** Elkana Hanghome	081 308 7469	
Halliburton	**Operations Lead** Stefan Pulak	081 636 4315	+44 7989 44 17 16
Halliburton (Service Coordinator)	Dobre Jacobs	081 704 6721	+27 82 445 4743
Halliburton	Mikhail Yemelyanov	081 692 2284	+221 766009120

Risk Assessment Procedure

	Document number: NAM135	Revision number: 01 Revision Date: 5-Nov-25	Page: 1 of 7
	PINDULO LOGISTICS RISK ASSESSMENT PROCEDURE		
	Compiled by: SHEQ Team	Issue date: 01-Oct-24	

	NAME	DESIGNATION	SIGNATURE	DATE
APPROVED BY	R. Nuwuses	SHEQ Manager		28/11/25
NEXT REVIEW DATE	Nov 2028			
DISTRIBUTION	ALL PINDULO LOGISTICS STAFF & CONTRACTORS			

Date Of Revision	Revision Number	Description of Changes	Name of Reviewer	Title and signature

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Printed Date: 25/11/28

1. PURPOSE

The purpose of the Risk Assessment Procedure is to establish a systematic method for identifying hazards, assessing risks, and implementing controls to prevent injury, ill-health, property damage, and environmental harm to a level as low as is reasonably practical.

2. DEFINITIONS & ABBREVIATIONS

ALARP	:	As Low as Reasonably Practicable.
Hazard	:	Anything with the potential to cause harm.
Hierarchy of Controls	:	Elimination → Substitution → Engineering → Administrative → PPE.
Risk	:	Likelihood of an event occurring combined with the severity of harm.
Risk Assessment:	:	Process of hazard identification, risk evaluation, and control selection.
SOP	:	Standard Operating Procedure
Top Management	:	EXCO
Management	:	All Managers that are not part of Top Management

3. ROLES, RESPONSIBILITY, ACCOUNTABILITY, AND AUTHORITY

Top Management	:	Ensure risk assessments are conducted and reviewed.
		Provide resources, competent personnel, and training.
SHEQ Team	:	Provide tools, templates, and guidance to the team.

		Verify the quality and completeness of assessments. Maintain the risk register.
Head of Departments/ Senior Management	:	Ensure risk assessments are conducted and reviewed. Provide resources, competent personnel, and training.
Team Leaders, Supervisors & SHE Reps	:	Lead risk assessments for their tasks. Ensure workers understand hazards and controls.
Employees & Contractors	:	Participate in hazard identification. Follow implemented controls.

4. PROCESS

4.1 Identify the Task / Activity

All activities carried out on Pindulo Logistics sites, including routine and non-routine tasks without a documented SOP, Changes in processes, equipment, or personnel, and Emergencies, should be accompanied by a risk assessment. The task to be performed should be described, and the location and equipment to be used should also be identified.

4.2 Identify the Hazards

The risk assessment should look for hazards related to:

- People (behaviour, competence, fatigue)

- Equipment (forklifts, cranes, vehicles, tools)
- Environment (weather, noise, lighting, terrain)
- Processes (lifting, welding, chemicals, hot work)
- Energy sources (electrical, mechanical, pressure)
- Chemical/biological hazards
- Manual handling

And use workplace inspections, job observations, incident history, and worker input to identify hazards.

4.3 Assess the Risks

All hazards' risks should be assessed using the 5 x 6 risk matrix to determine the risk rating:

Risk Rating = (Likelihood × Severity)

And be classified as:

- Low
- Medium
- High
- Extreme

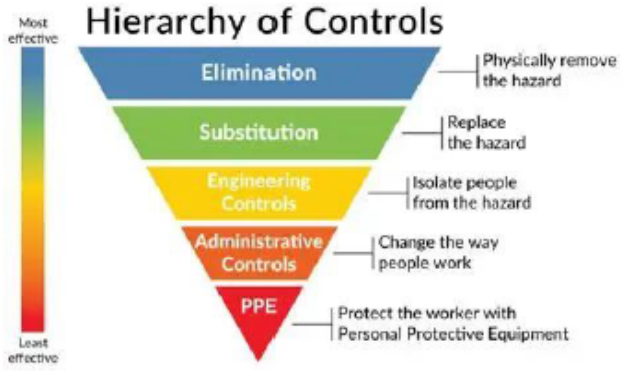
Risk Level Matrix

			SAFETY	Incident that does not require treatment. No further action required.	Low level incident which is short term and subjective with some inconvenience or symptoms. This is usually a First Aid Injury.	Medical Treatment / Restricted Work Injury. Reversible exposure / Illness that impacts on health. Medical practitioner advice required.	Lost Time Injury. Irreversible exposure / Illness that impacts on health.	Single fatality OR Permanent disability or impact to a worker's health from a chronic disease/illness or injury which ultimately will become fatal.	2 or more fatalities. OR Permanent disability or impact to > 2 workers' health from a chronic disease/illness or injury which ultimately will become fatal.
			CONSEQUENCE	1	2	3	4	5	6
				INSIGNIFICANT	MINOR	MODERATE	MAJOR	SEVERE	CATASTROPHIC
LIKELIHOOD	5	ALMOST CERTAIN	It is expected to occur in most circumstances	L	M	M	E	E	E
	4	LIKELY	Will probably occur in most circumstances.	L	L	M	H	E	E
	3	POSSIBLE	Would be unusual but could occur.	L	L	L	M	H	E
	2	UNLIKELY	Remote possibility of occurring	L	L	L	L	M	H
	1	RARE	It may occur only in exceptional circumstances	L	L	L	L	L	M
							High Potential Incidents		

4.4 Select Controls (Hierarchy of Controls)

Every risk should be accompanied by mitigation controls. The documented mitigation controls should ensure it reduces risk to ALARP levels. These controls should consider the following sequence:

1. **Eliminate** – remove the hazard entirely
2. **Substitute** – use less hazardous equipment/materials
3. **Engineering Controls** – guards, barriers, automation
4. **Administrative Controls** – procedures, training, permits, signage
5. **PPE** – last line of defence



4.5 Review and Approve Risk Assessment Document

The SHEQ Team and the affected department Manager should confirm that the suggested mitigation controls are appropriate, and the residual risk is acceptable. The risk assessment should be conducted by competent persons.

4.6 Implement the Controls

Once the mitigation controls are established, communicate the controls to the affected employees and contractors.

4.7 Monitor and Review

Risk assessments must be reviewed annually for routine tasks, after incidents or near misses, when processes/equipment change, and when there is evidence that controls are not effective

5. DOCUMENT REVIEW CYCLE

This document must be reviewed every three years, when regulations are amended, or when a procedure necessitates amendment.

6. DOCUMENT COMMUNICATION

I acknowledge that I have received, reviewed, and understood this procedure. I agree to adhere to its requirements and guidelines.

	Document number: NAM135	Revision number: 01 Revision Date: 5-Nov-25	Page: 7 of 7
	PINDULO LOGISTICS RISK ASSESSMENT PROCEDURE		
	Compiled by: SHEQ Team	Issue date: 01-Oct-24	

Name & Surname:	Designation:	Signature:	Date:

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Printed Date: 25/11/28

Risk Assessment Example

COMPANY:	Pindulo Logistics	**Issue Date:** 1/10/2024	
SCOPE:	Transport Commodities from Pindulo Back of Port (BBF) to Namport	**Revision Date:** 10/11/2025	
Ref.No	NAM125	**Revision #:** 01	
Risk Assesor:	Martin Hambinga (RTMS Rep) **Signature:**	**Approver:** Rufina Nuwuses (SHEQ Manager)	

No.	Activity	Hazard	Risk	L	S	R	What can I do to prevent it from going wrong/ Controls	L	S	R	Enforced by
1	From the loading point at BBF drive 1.6 km's on Circumferential Street to Sam Nujoma Ave, Driver to check all documents before departure to Namport	Potholes, congestion, and Dust minimizing visibility	Vehicle damage, Collide with other vehicles and pedestrians.	3	3	9	Reduce speed in known high-risk sections Maintain increased following distance Ensure headlights and indicators are always functioning for visibility (Pre-start inspections) Conduct regular route inspections and update drivers on new pothole locations/road conditions Avoid unnecessary lane changing, keep to designated lane Ensure tyres are correctly inflated and in good condition to handle rough surfaces (Pre-start inspections) Utilize instant messaging platforms (WhatsApp	2	3	6	Pindulo Logistics
		Driver Fatigue	Driver fall asleep/poor concentration resulting in collision.	2	5	10	Fatigue Management Procedure.	1	5	5	Pindulo Logistics and Subcontractor
		Vehicle Pedestrian and Vehicle Vehicle Interaction/close proximity	Collision with other vehicles and/or pedestrians.	3	5	15	Client induction Demarcated speed zones Logistics Academy provides rollover prevention technique training; road safety awareness training. Licensed drivers operating (strict procurement policy) Demarcated pedestrian walkways	2	5	10	Pindulo Logistics
		Speeding	Loss of control, colliding with other vehicles, stray pedestrians	3	5	15	Driver induction Speed restriction road. Licensed drivers operating (strict procurement policy)	1	5	5	Pindulo Logistics
		Substance abuse	Collisions, risk of injury to people - fatality, vehicles and damage to property,	3	5	15	Mandatory Breathalyzer test at security checkpoint; Pindulo Logistics has a zero substance abuse policy	1	5	5	Pindulo Logistics and Namport security
		Incorrect loading configuration of trailer	Vehicle unstable/loss of control, fines and lost time during traffic inspections/pullovers	2	4	8	Loading procedure Trained Forklift operator Frequent Supervision	1	4	4	Pindulo Logistics and Subcontractor
		Documentation not checked for Namport clearance	Not checking the documentation prior to leaving site poses the risk of incorrect documentation at the Namport gate resulting in excessive standing time.	1	3	3	Client procedure in place to ensure documentation are properly controlled and quality checks done prior to leaving site.	1	3	3	Pindulo Logistics and Namport Security
2	Exit the Circumferential Street then turn left onto Sam Nujoma Ave towards Traffic Lights	Not adhering to Traffic Lights/signs	Driver do not stop at intersection, collide with oncoming traffic and Pedestrians	2	4	8	Licensed drivers operating vehicles. Traffic infringement policy in place	1	4	4	Pindulo Logistics
3	After 107.45m on the T junction between Circumferential and Sam Nujoma Ave, There is a 4 way with Traffic Lights where trucks turn to get on to the 18th Rd	Vehicle Pedestrian and Vehicle Vehicle Interaction	Collision with other vehicles and/or pedestrians.	2	4	8	Licensed drivers operating vehicles. Traffic infringement policy in place	1	4	4	Pindulo Logistics
		Material dust	Expose public to hazardous dust inhalation emanating from transport activities. Spillages due to collision exposing public to hazardous dust inhalation. Bags coming loose during transport	2	3	6	SOP for loading of 1 Ton Bags. Pindulo Logistics enforces speed restriction, drivers to ensure load is secured before departing site. Emergency Response Plan	1	3	3	Pindulo Logistics
4	Immediately after crossing the Railways tracks, trucks make a left onto 5th Street East	Not adhering to Traffic signs	Driver do not stop at intersection, collide with oncoming traffic and Pedestrians	2	4	8	Licensed drivers operating vehicles. Traffic infringement policy in place	1	4	4	Pindulo Logistics
5	After turning left on to 5th street East, in 474.52m trucks will approach the A Van Der Walt Weighbridge.	High Traffic of Vehicle / Mobile equipment (Congestion)	Collision with other vehicles	3	4	12	Clear Signage and Markings Speed Control Measures Driver Training and Competency Regular Vehicle Maintenance Frequent route appraisals Drivers to stick to identified routes (No city centre driving)	2	4	8	Pindulo Logistics
		Congestion, Poor light and Dust minimizing visibility	Property damage. Collision with other vehicles. Running over pedestrians/weighbridge personnel.	2	4	8	Turn on truck lights. Reflective Markings and Signage. Sufficient lighting at the site. Regular truck maintenance and pre-start inspections. Alert Drivers Adhere to speed limits & rules	1	4	4	Pindulo Logistics
		Potholes	Property/Equipment damage. Vehicle collisions. Pedestrian strikes	3	3	9	Clear Signage and Traffic Management. Speed Limits. Regular truck maintenance. Driver Competency	2	3	6	Pindulo Logistics
		Availability of sufficient competent staff	Weighing errors. Inaccurate data reading.	2	3	6	Trained and competent weighbridge operators. Supervision and oversight. Automated systems. Drivers compare weighbridge tickets received	1	3	3	Pindulo Logistics
		Manual, Electric and technological failure	Inaccurate data reading and operation down time	2	1	2	Frequent calibration and verification of the weighbridge. Supervision and oversight	1	1	1	Pindulo Logistics
6	From the Weighbridge, trucks then proceed to the 5th Street East, 4th Street East, 15th Road and Railway Street.	Not adhering to Traffic signs	Driver do not stop at intersection, collide with oncoming traffic and Pedestrians	2	4	8	Licensed drivers operating vehicles. Traffic infringement policy in place	1	4	4	Pindulo Logistics
	After the 4 way junction, trucks proceed staright onto 4th street east for 498.85m and turn Left onto 3rd	Vehicle Pedestrian and Vehicle Vehicle Interaction	Collision with other vehicles and/or pedestrians.	2	4	8	Licensed drivers operating vehicles. Traffic infringement policy in place	1	4	4	Pindulo Logistics
		Not adhering to Traffic signs	Driver do not stop at intersection, collide with oncoming traffic and Pedestrians	2	4	8	Licensed drivers operating vehicles. Traffic infringement policy in place	1	4	4	Pindulo Logistics

7	street east approaching the namport gate, where they need to present their Paperwork before proceeding inside.	Congestion, Poor light and Dust minimizing visibility	Property damage. Collision with other vehicles. Running over pedestrians.	2	4	8	Turn on truck lights. Reflective Markings and Signage. Sufficient lighting at the site. Regular truck maintenance and pre-start inspections.	1	4	4	Pindulo Logistics
		Road Constructions / Road works in progress	Insufficient and congested road.	3	4	12	Advice drivers to adhere to rules setup Speed limit Employ trained competent drivers	2	4	8	Pindulo Logistics
8	From the Namport gate, once a truck enters. It then proceeds for 1.68km to the site (Pindulo Rubhall)	Not adhering to Traffic signs	Driver do not stop at intersection, collide with oncoming traffic and Pedestrians	2	4	8	Licensed drivers operating vehicles. Traffic infringement policy in place	1	4	4	Pindulo Logistics
9	Arrival of truck on site.	Physical interactions between vehicles and mobile machinery	Collision with other vehicles and mobile equipment. Run over pedestrians/Site personnel.	2	4	8	Driver Induction High-vis clothing Speed control measures - Namport speed cameras Driver alert Traffic signs	1	4	4	Pindulo Logistics
10	Waiting Area	Petroleum product	Environmental spills/leaks	3	4	12	Truck Inspections Regular Fleet Maintenance Spill Kits on trucks	2	2	4	Pindulo Logistics
		Physical interactions between vehicles and mobile machinery	Collision with other vehicles & mobile equipment (FEL, Forklift)	2	4	8	Apply wheel chocks, engage hand brake & switch off ignition Driver alterness & competency Fatigue management Reverse with a spotter	1	3	3	Pindulo Logistics
		Air polluntant	Exhaust gases from exessive idling	3	4	12	Idle reduction technologies/Automatic engen shut-off systems. Wear correct PPE	2	2	4	Pindulo Logistics
11	Truck enters the Con Shed	Dust, Fumes and Vapors	Dust inhalation	3	4	12	Induction Use of correct PPE Limited time exposure (job/worker rotation)	2	2	4	Pindulo Logistics
		Irritating substances	Skin irritations	3	5	15	Safety Awareness (Induction & Toolbox talks) MSDS shared with employees Use of correct PPE (Overalls/Coveralls, Tyvet suits, Dust Mask) Safety Showers & mobile eye wash After shift showers	2	2	4	Pindulo Logistics
		Vehicle / Mobile equipment interactions	Property damage. Collision with mobile equipment (FEL). Running over pedestrians.	3	4	12	Induction. Spotter when reversing. High-vis clothing for all personnel. Communication. Adequate lighting Speed limits	1	4	4	Pindulo Logistics
12	Product offloading	Dust, Fumes and Vapors	Dust inhalation	3	4	12	Induction Use of correct PPE Limited time exposure (job/worker rotation)	2	2	4	Pindulo Logistics
		Noise (Ambient or impact)	Excessive noise resulting from the emptying of loading bins	3	4	12	Use of appropriate PPE Job rotation Annual medical surveillance.	2	4	8	Pindulo Logistics
		Manual / electric / pneumatic / hydraulic tools	Delivery constraints resulting from mechanical/tipping failure Hydrocarbon spills Product contaminations Slip and fall incidents	3	4	12	Regular fleet maintenance Drip trays Spill kit bins Pindulo Offloading Procedure	2	1	2	Pindulo Logistics
13	Truck exits Con Shed	Vehicle / Mobile equipment interactions	Collision with other vehicles and mobile equipment. Running over pedestrians. Property damage	3	4	12	Induction. Spotter when reversing. High-vis clothing for all personnel. Communication. Adequate lighting	2	2	4	Pindulo Logistics
		Dust, Fumes and Vapors	Dust inhalation	3	4	12	Induction Use of correct PPE Limited time exposure (job/worker rotation) Sweep truck tires properly to remove excess product.	2	2	4	Pindulo Logistics

The risk assessment is a quantative method.

The following scoring system is used to quantify **health and safety** risks:

Severity	
Fatality	5
Major injury, disabling illness, major damage	4
Lost time injury, illness, damage	3
Minor injury, minor damage	2
Delay only	1

Likelihood	
Certain to imminent	5
Very likely to happen	4
Likely to happen	3
Unlikely	2
Very unlikely	1

The following scoring system is used to quantify **environmental** risks:

Severity	
Global environmental impact	
National environmental impact > 7 days clean up	
Local environmental impact > 24 hrs clean up	
Site environmental impact < 24 hrs clean up	
Little or no environmental impact	

Likelihood	
Certain to imminent	
Very likely to happen	
Likely to happen	
Unlikely	
Very unlikely	

The resulting risk scores are rated into four broad risk bands as shown below:

Very Hi	20-25	Immediate action required to stop the activity or reduce the risk
High	12-19	Urgent action required as soon as practicable and within two weeks at the latest
Mediun	8-11	Keep under regular review and investigate further measures to reduce the risk
Low	1-7	Acceptable risk

The resulting risk scores are rated into four broad risk bands as shown below:

Very High	16-25	Immediate action required to stop the
Medium	9-15	Keep under regular review and investigate
Low	1-8	Acceptable risk

Appendix C: Consultant's Curriculum Vitae

ENVIRONMENTAL SCIENTIST **André Faul**

André entered the environmental assessment profession at the beginning of 2013 and since then has worked on more than 230 Environmental Impact Assessments including assessments of the petroleum industry, harbour expansions, irrigation schemes, township establishment and power generation and transmission. André's post graduate studies focussed on zoological and ecological sciences and he holds a M.Sc. in Conservation Ecology and a Ph.D. in Medical Bioscience. His expertise is in ecotoxicological related studies focussing specifically on endocrine disrupting chemicals. His Ph.D. thesis title was The Assessment of Namibian Water Resources for Endocrine Disruptors. Before joining the environmental assessment profession he worked for 12 years in the Environmental Section of the Department of Biological Sciences at the University of Namibia, first as laboratory technician and then as lecturer in biological and ecological sciences.

CURRICULUM VITAE ANDRÉ FAUL

Name of Firm	:	Geo Pollution Technologies CC.
Name of Staff	:	ANDRÉ FAUL
Profession	:	Environmental Scientist
Years' Experience	:	23
Nationality	:	Namibian
Position	:	Environmental Scientist
Specialisation	:	Environmental Toxicology
Languages	:	Afrikaans – speaking, reading, writing – excellent
		English – speaking, reading, writing – excellent

EDUCATION AND PROFESSIONAL STATUS:

B.Sc. Zoology/Biochemistry	:	University of Stellenbosch, 1999
B.Sc. (Hons.) Zoology	:	University of Stellenbosch, 2000
M.Sc. (Conservation Ecology)	:	University of Stellenbosch, 2005
Ph.D. (Medical Bioscience)	:	University of the Western Cape, 2018

First Aid Class A	EMTSS, 2017, OSH-Med 2022
Basic Fire Fighting	EMTSS, 2017, OSH-Med 2022

PROFESSIONAL SOCIETY AFFILIATION:

Environmental Assessment Professionals of Namibia (Practitioner)

AREAS OF EXPERTISE:

Knowledge and expertise in:

- Water Sampling, Extractions and Analysis
- Biomonitoring and Bioassays
- Biodiversity Assessment
- Toxicology
- Restoration Ecology

EMPLOYMENT:

2013-Date	:	Geo Pollution Technologies – Environmental Scientist
2005-2012	:	Lecturer, University of Namibia
2001-2004	:	Laboratory Technician, University of Namibia

PUBLICATIONS:

Publications:	5
Contract Reports	+250
Research Reports & Manuals:	5
Conference Presentations:	1