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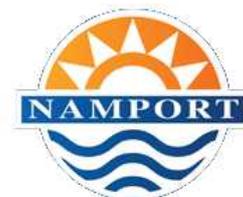
**PHASE 2 LAND RECLAMATION AND EXPANSION OF THE
PORT OF LÜDERITZ IN ROBERT HARBOUR, LÜDERITZ,
||KHARAS REGION
ENVIRONMENTAL IMPACT ASSESSMENT**



Assessed by:



Assessed for:

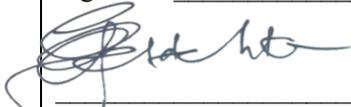


February 2026

Project:	PHASE 2 LAND RECLAMATION AND EXPANSION OF THE PORT OF LÜDERITZ IN ROBERT HARBOUR, LÜDERITZ, KHARAS REGION	
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Report Approval:	 André Faul Conservation Ecologist	

I, Elzevir Gelderbloem, acting as the Proponent's representative (Namibian Ports Authority), 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 on the 18 day of March 2026.


Namibian Ports Authority

EXECUTIVE SUMMARY

Introduction

The Namibian Ports Authority, Namport, is mandated by the Namibian Ports Authority Act of 1994 to control and manage ports within Namibia. To meet the growing demand for port service in Lüderitz, Namport proposes to expand the existing port through a process of land reclamation to increase both berthing and onshore operational space. This project consists of two phases and this report focuses on Phase 2 port expansion. Geo Pollution Technologies (Pty) Ltd was appointed by Namport, as independent environmental consultant, to assist with the necessary studies to determine the potential environmental impacts, and ultimately whether an environmental clearance certificate may be granted for this project. To achieve this, an environmental impact assessment with selected specialist studies was undertaken to determine the potential positive and negative impacts of the Proponent's proposed expansion activities on the environment. The assessment also guided the development of an environmental management plan aimed at preventing or limiting negative impacts while enhancing the positive benefits of the project.

Scope and Methodology

The environmental assessment is conducted to determine all environmental, safety, health and socio-economic impacts associated with the project. Relevant environmental data was compiled by using secondary data, primary data (noise, visual, and archaeological and heritage assessments) and during a reconnaissance site visit. Potential environmental impacts and associated social impacts were identified and are addressed in this report.

Project Description

The main construction component of Phase 2 will be the development of approximately 3 ha of reclaimed land within the existing Port of Lüderitz footprint, together with the construction of a new concrete jetty/quayside interface. Construction activities will involve the following: 1) removal of the existing defunct wooden jetty within the project footprint; 2) dredging and spoiling of the loose sandy material overlying bedrock in the designated construction zone to expose competent rock for structural anchoring; 3) construction of the quay/jetty works, which may include the installation of a steel sheet pile retaining wall founded on bedrock with concrete infill to close uneven seabed gaps (alternatively a reinforced concrete deck on piles may be constructed, with a rock revetment below the deck to contain the fill); 4) placement and compaction of suitable fill material to form the reclaimed platform and associated backup area; 5) installation of any required anchor walls (where applicable) to stabilise the quay wall during and after backfilling; 6) construction of a reinforced concrete capping wall, incorporating a service tunnel to house essential quayside services; and 7) extension and installation of associated onshore services such as internal roads and pavements, water supply, sewerage, stormwater management, lighting and electricity distribution, and any required rail interface/extensions.

Apart from the land reclamation process, the port has existing infrastructure that may require periodic construction and maintenance activities in order to maintain or upgrade the port infrastructure, or to construct completely new infrastructure as the demand for various port services and facilities change. Some aspects of such construction activities may require their own environmental assessments, depending on the type and scale of the proposed construction activity.

Environment

Development of the port is planned offshore within port limits, in an area which is under jurisdiction of Namport. Nearby sensitivities include, to the northwest of the proposed area, Shark Island, an area of heritage significance, accommodation establishments, and residences. Further north, Penguin and Seal Island are important for breeding bird colonies, and ranching and onshore culturing of abalone relies on clean, quality water. West and east are the port itself and various industries and businesses, many depending on the port to sustain their business activities. The town has many historic buildings dating to the early 1900's. Lüderitz itself is surrounded by the Tsau //Khaeb (Sperrgebiet) National Park and the Namibian Islands' Marine Protected area. Most of the land around Lüderitz is restricted due to the presence of diamond mining licence areas. The marine environment falls within a designated Important

Bird Area and a rock lobster sanctuary. The benthic communities in the proposed port development area are not particularly unique and the seafloor mostly has a fine silt layer.

Public Participation

As part of the environmental assessment process, public consultation was performed. This entailed compilation of a stakeholder database; compilation of a background information document, press notice, notification letters, and site notice; environmental assessment announcements in two nationally distributed newspapers, once a week for two consecutive weeks (The Namibian and Republikein on 18 and 25 August 2025); hand delivery of notification letters to the executive directors' offices of key ministries; e-mail and multimedia messages with notification letters to identified stakeholders; placing of a site notice at the entrance to the Lüderitz port; and conducting three public meetings in Lüderitz. All comments and concerns were compiled in a comments and responses table as part of this report.

Impacts

Positive impacts arising from the port expansion project include increased availability of berthing and operational port space; employment, training and development of the Namibian workforce; increased economic resilience of employees and contractors; and economic injection into the Namibian economy through the sourcing of goods and services, often with funds obtained from foreign investors.

Significant negative environmental impacts resulting from construction and operations of the port are expected unless suitable preventative and mitigating measures are implemented. The most important of the impacts are archaeology/heritage, visual, noise, waste, pollution and health and safety.

Management of Impacts

Positive impacts can be enhanced by supporting local industries and contractors and appointment of local Namibian employees, as far as is practically possible. It should however be noted that the technologies are sometimes not available in Namibia and will then require international expertise.

All infrastructure must be designed and finished to blend in with the surroundings and construction activities must be restricted to day time to limit noise disturbances at noise sensitive receptors. Good housekeeping must be performed at all times and equipment must be on site to deal with any emergencies such as spills, fire and injuries. Future port tenants must operate in accordance with the existing operational environmental management plan of Namport.

The environmental management plan accompanying this document should be used as an on-site reference document during planning and construction activities for the project. All monitoring and records kept should be included in a report to ensure compliance with the environmental management plan and environmental clearance certificate conditions. Namport's health, safety, environment and quality policy, or similar, should be used in conjunction with the environmental management plan. Contractors and responsible personnel must be taught the contents of these documents. National regulations and guidelines must be adhered to and compliance monitored regularly as outlined in the environmental management plan.

Conclusion

The Port of Lüderitz is a national asset that must be operated and developed for the benefit of Namibia. This said, it should be done so in an environmentally responsible manner, with due regard for ecological, social, archaeological and heritage sensitivities. Based on the environmental assessment and the associated specialist studies, the port expansion should be allowed, given that the preventative and mitigation measures as proposed are implemented. The environmental management plan must form part of the contracts of all parties involved with the construction and processes. Future port tenants must conduct their own environmental assessments and implement their environmental management plans which must draw upon the operational environmental management plan of Namport. Parties responsible for transgression of the environmental management plan should be held responsible for any rehabilitation that may need to be undertaken.

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LIST OF ABBREVIATIONS

AIDS	Acquired immunodeficiency syndrome
BCLME	Benguela Current Large Marine Ecosystem
DEA	Department of Environmental Affairs
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
EMS	Environmental Management System
GPT	Geo Pollution Technologies
HAT	Highest Astronomical Tide
HIV	Human Immunodeficiency Virus
I&APs	Interested and Affected Parties
IBA	Important Bird Area
ISO	International Standards Organisation
ISPS	International Ship and Port Facility Security
IUCN	International Union for the Conservation for Nature
LAT	Lowest Astronomical Tide
LTC	Lüderitz Town Council
Ma	Megaannum
MAFWLR	Ministry of Agriculture, Fisheries, Water and Land Reform
MBL	Marine Atmospheric Boundary Layer
mCD	Metres Relative to Chart Datum
MEFT	Ministry of Environment, Forestry and Tourism
MHWN	Mean High Water Neaps
MHWS	Mean High Water Springs
ML	Mining Licence
MLWN	Mean Low Water Neaps
MLWS	Mean Low Water Springs
MSDS	Material Safety Data Sheet
MUCH	Maritime Underwater Cultural Heritage
Namport	Namibian Ports Authority
NDP	National Development Plan
NHC	National Heritage Council of Namibia
NIMPA	Namibian Islands' Marine Protected Area
NSI	Namibian Standards Institution
NTU	Nephelometric Turbidity Units
OHSAS	Occupational health and safety information, guidance and resources
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation
PAH	Poly Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PPE	Personal Protective Equipment
PPM	Parts Per Million
SADC	Southern African Development Community
SAH	South Atlantic High
spp	Species
TBT	Tributyltin
TPH	Total Petroleum Hydrocarbons
TSS	Total Suspended Solids
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organisation

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.

Mariculture - The farming and ranching of aquatic organisms.

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

Biota - The animal and plant life of a specific region, habitat, or geological period.

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.

Dredged Material – refers to substrate on the ocean floor consisting of sediments, soils, clays, silt, rock, sand and debris removed from the seafloor during dredging.

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.

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.

Mariculture - The farming and ranching of specifically marine organisms.

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

Non-native – a plant or animal introduced to an environment that is not the location of its natural occurrence

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

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

Reclamation - the process of creating new land or restoring degraded land for productive use. This can involve creating new land from bodies of water by pumping water out or filling in the seabed.

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 INTRODUCTION

The Namibian Ports Authority, Namport, is tasked with the management and development of ports in Namibia. As part of their mandate, they are planning for the expansion of the Port of Lüderitz in the ||Kharas Region (Figure 1-1). To achieve this, Namport proposes two phases of expansion within Namport's area of jurisdiction as defined by the officially declared port limits (Figure 1-2). Phase 1 will entail extending the main quay wall by 500 m and reclaiming of approximately 14 hectares of sea area, below the high water mark, to serve as backup land for the extended quay. Phase 2 will see demolition of the existing wooden jetty in the southernmost part of the harbour, reclamation of approximately 3 ha of sea area, and construction of a new concrete jetty at the north-end of the reclaimed area. The extended quay walls, new jetty and additional backup land will allow for the berthing of additional vessels and increased backup cargo storage space, and thus increase the much-needed cargo handling capacity of the port.

The reclamation of land from below or above the high-water mark of the sea, as well as the construction of harbours, require environmental clearance from the Department of Environmental Affairs (DEA), Ministry of Environment, Forestry and Tourism (MEFT). An environmental clearance is required in terms of the Environmental Management Act, Act no. 7 of 2007 (EMA), as administered by the MEFT. Namport thus commissioned this environmental assessment with the purpose of, upon a favourable outcome of the assessment, applying for environmental clearance. In response to the pressing demand for expanded operational and berthing capacity at the Port of Lüderitz, separate environmental clearance applications will be submitted for Phase 1 and Phase 2 of the proposed development. This approach ensures that, should the issuance of an Environmental Clearance Certificate (ECC) for one phase be delayed, the other may proceed independently without hindrance.

Geo Pollution Technologies (Pty) Ltd (GPT) was appointed as independent environmental consultant by Namport to carry out the assessments. The current assessment focusses on the Phase 2 expansion project and will be submitted to the DEA in the form of an environmental impact assessment (EIA), environmental management plan (EMP) and various supporting documentation. The environment being defined in the Environmental Management Act 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”.

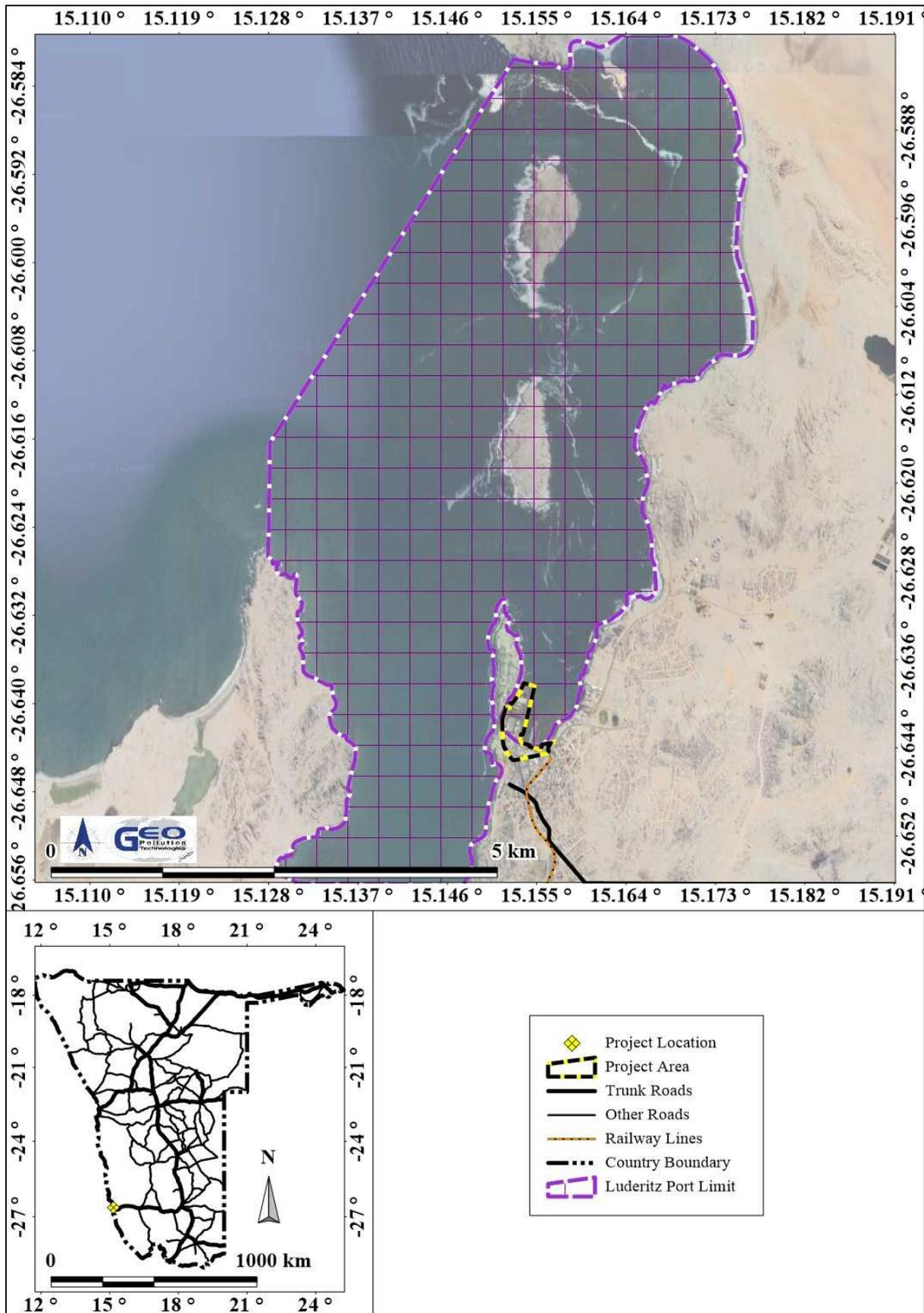


Figure 1-1 Existing commercial harbour

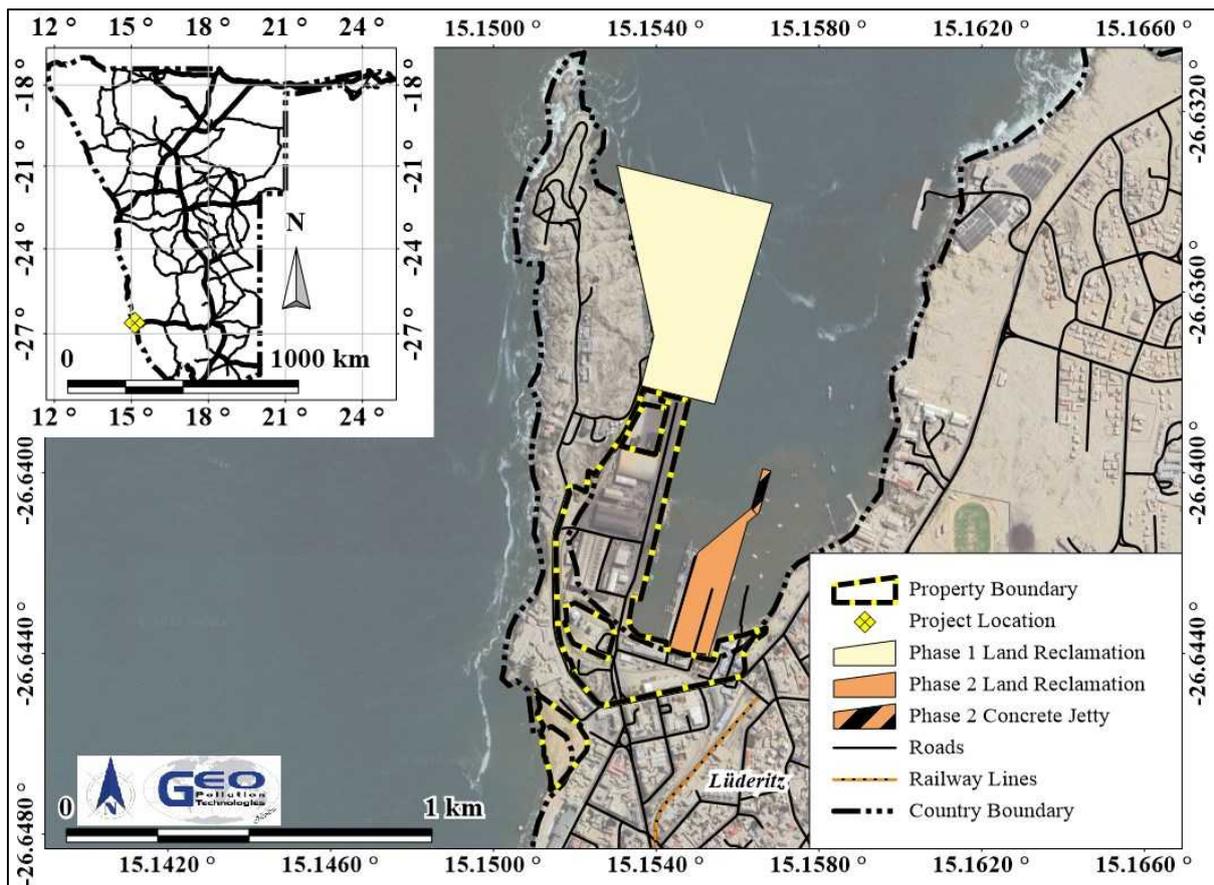


Figure 1-2 Phase 1 and Phase 2 port expansion areas

2 BACKGROUND

The Namibian Ports Authority Act, Act Number 2 of 1994, as proclaimed in Government Gazette No. 810, made provision for “*the establishment of the Namibian Ports Authority to undertake the management and control of ports and lighthouses in Namibia and the provision of facilities and services related thereto; and to provide for matters incidental thereto.*” Under this act, Namport, a state owned enterprise, was established as the port authority and under their control is the Port of Walvis Bay on the central coast and the Port of Lüderitz on the southern coast of Namibia.

Namport’s key roles are to (www.namport.com.na):

- ◆ Manage the port facilities to cater for current trade needs.
- ◆ Develop the ports for future demands.
- ◆ Contribute to the competitiveness of the Southern African Development Community (SADC) region's trade through the efficient, reliable and cost-effective supply of port services.
- ◆ Facilitate economic growth in Namibia by enabling regional development and cross-border trade.
- ◆ Promote the Ports of Walvis Bay and Lüderitz as preferred routes for sea-borne trade between SADC, Europe and the Americas.
- ◆ As the founding architects of the Walvis Bay Corridor Group, assist with developing cross-border trade.
- ◆ Minimize the impact of port operations on the natural environment by applying International Organisation for Standardisation (ISO) 14001 standards.
- ◆ Uplift and support the communities in which Namport operates.

Namport strives to be a world-class ports authority and thus works according to international standards, namely ISO 9001, ISO 14001 and Occupational Health and Safety Assessment Series (OHSAS) 18001, to uphold quality as well as environment and occupational health and safety standards.

Historically, Lüderitz has functioned primarily as a fishing port, supporting Namibia's national fishing industry. In later years, however, the port has seen growing demand from mining and offshore sectors, particularly diamond, zinc, and lead operations in southern Namibia. This evolving reliance underscores Lüderitz's emerging role as a strategic logistics hub. The port is increasingly positioned to support a broader range of mineral and petroleum activities, with notable interest in its potential as an export gateway for manganese ore—and potentially other commodities—originating from South Africa, as well as a port and base from which support to the offshore oil and gas industries can be provided. The port functions with Namport as the port operator and landlord with various tenants conducting business in and from the port.

3 PROJECT JUSTIFICATION

The Port of Lüderitz is an established operational harbour within Robert Harbour, with much of the existing quay and backup area created through historic land reclamation. While this infrastructure has supported port operations for many years, Namport has identified the need to incrementally improve and expand operational space and berthing functionality to respond to changing demand and to make better use of underutilised areas within the port footprint.

The development area is currently underutilised, largely due to the presence of an obsolete/defunct wooden jetty and older infrastructure that constrain efficient use of the water space and quayside interface. The proposed works (removal of the defunct jetty, reclamation of new land, and construction of a new jetty/quay interface) are intended to optimise the layout and functionality of this section of the harbour by providing additional operational backup space and improved berthing/servicing capability for typical port activities.

From an EIA perspective, this approach offers several advantages:

- ◆ **Reduced Environmental Footprint:** Expanding within the existing port footprint minimizes disturbance to undisturbed marine and coastal ecosystems compared to greenfield development elsewhere in the bay.
- ◆ **Optimised use of Existing Infrastructure:** Leveraging reclaimed land and established operational zones reduces the need for extensive new construction and associated environmental disruption.
- ◆ **Accelerated Implementation:** Development within Robert Harbour can proceed within shorter timeframes and budget envelopes, enhancing responsiveness to market demand while maintaining environmental safeguards.
- ◆ **Alignment with Strategic Policy:** The proposed development supports Namibia's Vision 2030 and National Development Plans (NDPs), which prioritize the creation of a safe, reliable, and sustainable transport network. It also contributes to the establishment of a world-class logistics hub that connects SADC to global markets.

It is also recognised that Lüderitz contains areas and features of cultural and historical importance. Although the development is planned within an established port environment, the project must be implemented in a manner that respects heritage considerations, complies with applicable legislation, and includes appropriate controls (such as footprint management and chance-find procedures) to manage any unexpected discoveries.

In summary, the proposed expansion represents a practical and environmentally preferable development option because it upgrades and increases capacity within an underutilised section of the existing port, improves berthing and operational space. When approached holistically, the development supports Namibia's Vision 2030 and national goals for a sustainable, inclusive, and globally connected transport and logistics network. Thus, in agreement with Namibia's vision, Namport strives to continue operating the Port of Lüderitz to reliably and effectively serve Namibia and its neighbours.

4 SCOPE

The scope of the environmental assessment is to, in compliance with Namibia's Environmental Management Act (2007):

- ◆ Provide a detailed description of the project components.

- ◆ Present the legal setting within which the project must be planned and executed.
- ◆ Provide a description of all environmental components that may be impacted by the project.
- ◆ Present and rate the environmental impacts that may emanate from the proposed project.
- ◆ List management actions which could prevent or mitigate the potential adverse impacts to acceptable levels.
- ◆ Conduct the required public participation processes and present and address all communication received from interested and affected parties (I&AP).
- ◆ Provide sufficient information to the MEFT and other relevant authorities to make an informed decision regarding the issuing of an ECC for the proposed project.

5 METHODOLOGY

The following methods were used to execute and complete the environmental assessment process:

1. Preliminary designs and construction activities were received from the client and are presented in this report.
2. Baseline information about the area and surroundings was obtained from existing literature and previous environmental assessment reports of the port and surroundings.
3. Primary information was obtained from specialist studies commissioned in response to the requests made by I&APs.
4. I&APs were consulted about their views, comments and opinions and these are put forward in this report.
5. As per the findings of this environmental assessment, an EIA report and EMP were prepared and these will be submitted to the MEFT.

6 PROJECT DETAILS

The following sections provide a brief overview of current port infrastructure and operations as well as the proposed plans for port expansion.

6.1 EXISTING INFRASTRUCTURE AND OPERATIONS

The footprint of the existing commercial harbour of the Port of Lüderitz is indicated in Figure 6-1. The entire water area on the eastern side of the port limits, within the bay of Lüderitz, are under jurisdiction of Namport. The main components are the commercial harbour, a concrete jetty, an old defunct wooden jetty and the navigational water area which requires periodic dredging to maintain water depth.

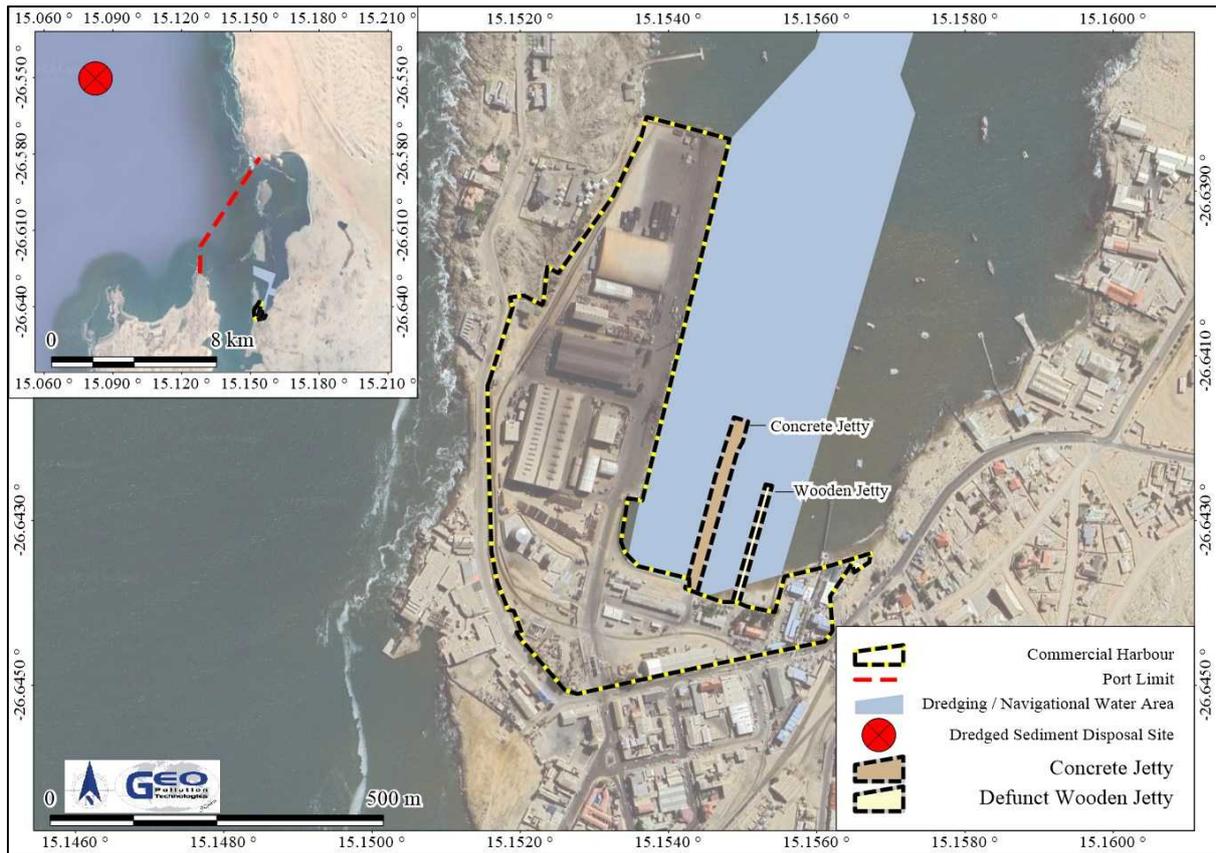


Figure 6-1 Current port footprint



Photo 6-1 Northern quay section of existing port



Photo 6-2 Cruise liner in the port

Various port tenants operate within the commercial harbour. The main operations and port activities are briefly discussed below.

6.1.1 Cargo Imports

Sea ports are typically the main avenue for imports. These can include chemicals, mineral ores, coal, fuel, etc. Currently the main cargo imported into Namibia via the Port of Lüderitz are fuel, fish and general cargo. General cargo made up the bulk of imports at 61,082 tonnes in 2023/2024 (Namport Annual Report 2023/24). This was followed by fuel at 59,112 tonnes and fish at 30,107.

The Port of Lüderitz currently only receive diesel fuel by means of tanker ships. Diesel is offloaded at the quay wall and pumped via an underground pipeline to the bulk fuel storage

facility of Impala Terminals Namibia (Figure 6-2). The port could potentially also receive other petroleum products in future.

6.1.2 Bulk and Break-Bulk Exports

Mining ore can be exported in bulk via the port. Currently the main bulk export product is manganese ore and in 2023/2024 it totalled 83% (880,770 tonnes) of all exports via Lüderitz (Namport Annual Report 2023/24). Zinc and zinc concentrate, were the second most exported product, although it declined by about 50% since 2018/19 to 75,085 tonnes (Namport Annual Report 2023/2024). Ice (31,866 tonnes), lead (19,515 tonnes), fish and bait (184 tonnes), and other non-specified products (48,128 tonnes) made up the remaining export products.

6.1.3 Fuel Bunkering

Diesel bunkering of ships is performed by Impala Terminals Namibia. Underground pipelines service both the quay area and the concrete jetty where hose trolleys are used for port bunkering purposes. Currently, no offshore bunkering occurs within port limits. Bunkering outside of port limits does not fall under the jurisdiction of Namport.



Figure 6-2 Bulk fuel storage facility and pipeline routes

6.1.4 Fishing Operations and Mariculture

Wave action along the western shore of the Robert Harbour prevents safe berthing of fishing vessels at jetties of the fish factories. Fishing vessels therefore mostly use the commercial harbour for berthing to offload fish and to replenish supplies.

Mariculture of oysters and abalone takes place within port limits. These activities does not form part of Namport's operations. However, mariculture is recognized by government as an important sector in Namibia and port activities may impact on the mariculture industry.

6.1.5 Cruise Liners

Cruise liners make regular stops in Lüderitz. Large cruise ships anchors off Angra Point and shuttle passengers to Lüderitz due to the shallow depth of the port. Smaller cruise liners can

berth inside the port, but limited berthing space necessitates careful scheduling to accommodate all calls to port.

6.1.6 Stevedoring

Stevedoring refers to the loading, unloading, and handling of cargo between ships and the shore. It typically involves the use of cranes, forklifts, and other equipment to transfer goods efficiently and safely, and is carried out by specialized operators or contractors. Stevedoring is a core activity in port logistics, directly supporting maritime trade and vessel turnaround.

6.1.7 Traffic

Land based traffic into and out of the port is regulated at the access gate, which is permanently manned by security. The access gate is off Hafen Street and limited off-street parking space is provided outside the access gate.

A railway line with sidings is present. It is currently only utilised to receive manganese ore, but forms part of the future plans of optimisation of the port for imports and exports.

Access to the port through town is mainly via Bismarck Street which hosts the town centre and many historically significant buildings.

6.1.8 Security

The entire landside of the port area is fenced off and security personnel man the entrance gate. No unauthorised access is allowed in the port area and all visitors must obtain an entrance permit from Namport security.

6.1.9 General

As landlord, Namport primarily acts as a regulator, facilitator, and strategic asset manager, while private operators (tenants) handle cargo handling and terminal operations. Namport's operational role include:

- ◆ Strategic oversight and planning
 - Master planning for port development, land use, and infrastructure expansion
 - Zoning and spatial allocation of port areas for different uses (cargo, passenger, industrial, etc.)
 - Environmental and heritage compliance oversight, including EIA coordination and monitoring
- ◆ Infrastructure management
 - Development and maintenance of common-use infrastructure:
 - Quays, breakwaters, access roads, rail links, utilities
 - Dredging and hydrographic surveys to maintain navigable depths
 - Asset lifecycle management for port-owned facilities
- ◆ Lease and concession management
 - Negotiating and administering leases or concessions with terminal operators, logistics firms, and other tenants
 - Monitoring compliance with lease terms, including performance, safety, and environmental obligations
 - Revenue collection from rent, throughput fees, and service charges
- ◆ Maritime and navigational services
 - Harbour master functions: vessel traffic coordination, pilotage oversight, anchorage management
 - Port security coordination under International Ship and Port Facility Security Code (ISPS Code)
 - Emergency response planning for spills, fires, or vessel incidents
- ◆ Regulatory and compliance functions
 - Enforcing port bylaws and safety regulations

- Customs and border agency coordination
- Monitoring environmental performance and stakeholder engagement (especially relevant in heritage-sensitive areas like Lüderitz)
- ◆ Stakeholder engagement and facilitation
 - Coordination with government, industry, and community stakeholders
 - Facilitating trade and logistics development
 - Supporting national development goals (e.g., Vision 2030)

6.2 PLANNED EXPANSIONS

The aim of the planned expansion of the port is to firstly increase the berthing space in the port and secondly to increase the operational areas (back-up land) within the port. The following is a summary of the proposed Phase 2 expansion project of the port.

6.2.1 Additional Footprint

The Phase 2 expansion footprint is located within the commercial harbour in the southern part of Robert Harbour (Figure 6-3). The works will involve the reclamation of approximately 3 ha of additional land within the harbour basin to create additional backup area for port operations, together with the construction of a new concrete jetty along the northern end of the reclaimed area. The jetty structures in the Phase 2 footprint will need to be removed to enable the planned works and accommodate the new layout.



Figure 6-3 Additional planned port area

6.2.2 Construction Activities

The main construction component of Phase 2 will be the development of approximately 3 ha of reclaimed land within the commercial harbour, together with the construction of a new concrete jetty. The Phase 2 works will also require the removal of the existing defunct wooden jetty and concrete jetty located within the planned footprint. Construction activities for Phase 2 will involve the following:

6.2.2.1 Removal of Current Infrastructure

The Phase 2 footprint includes the existing off-loading facilities at the south end of Menai Creek, comprising two ageing jetty structures that will be decommissioned and removed to enable the planned reclamation works and construction of the new jetty/quayside infrastructure. The main jetty is a reinforced concrete structure (Photo 6-4) supported on circular concrete piles, approximately 242 m long (usable length \pm 190 m) and 19.5 m wide. The available depth alongside cannot be further increased because of structural stability constraints, and the jetty's original load-bearing capacity (reported as 2 t/m²) has reduced over time, such that it can no longer be safely approached by heavy trucks (Dierks, 2001).

The second jetty is a wooden structure (Photo 6-3), constructed in the 1940s, approximately 168 m long and 7.5 m wide. This jetty is in an unsatisfactory structural condition, and it is currently only used by smaller vessels, with no truck access (Dierks, 2001).

Removal works will typically involve the controlled dismantling of above-water components, followed by the extraction and/or cutting of piles and remaining structural members to a safe level below the seabed where required. All recovered materials will be sorted for reuse and/or recycling where feasible, with remaining wastes disposed of at an approved waste disposal facility in accordance with applicable requirements.



Photo 6-3 Old defunct wooden jetty



Photo 6-4 Current concrete jetty

6.2.2.2 Dredging and Spoiling of Sandy Overburden

Prior to quay wall construction and land reclamation, dredging will be undertaken to remove the loose sandy sediment overlaying the bedrock in the designated construction zone. This material must be cleared to expose competent rock for structural anchoring. The dredging activity is already covered under the Port of Lüderitz's existing dredging EIA/EMP and ECC, which includes provisions for sediment handling, turbidity control, and spoil management.

6.2.2.3 Quay Wall Construction

Two alternative quay wall designs are under consideration:

Steel Sheet Pile Retaining Wall: A sheet pile is a long, thin structural component, most commonly made of steel, which interlocks with others to form a continuous wall. These walls are typically used for earth and water retention in projects like retaining walls, seawalls, cofferdams, and supporting excavations. This option involves driving the steel sheet piles directly into the exposed bedrock. Irregular voids between the sheet pile and seabed will then be filled with concrete to ensure structural stability and prevent undermining.

Reinforced Concrete Deck on Piles: Alternatively, a piled deck structure may be constructed. With this method, concrete piles are anchored into the bedrock and a concrete deck is placed on the piles. A rock revetment are then placed beneath the deck to contain the sand fill and prevent erosion.

Both designs aim to minimize seabed disturbance and ensure long-term durability under marine conditions.

6.2.2.4 Installation of Anchor Walls

To stabilise the steel sheet pile wall for backfilling, two rows of anchor walls will be installed. These structures will resist lateral pressure from the reclaimed fill and ensure the integrity of the quay wall during and after construction.

6.2.2.5 Land Reclamation

After installation of the quay wall, land reclamation will be carried out behind the newly constructed structure within the Phase 2 footprint. Reclamation will be confined to the legally defined boundaries of the Port of Lüderitz and will create additional backup land to support port operations, cargo handling and vessel servicing within the commercial harbour.

6.2.2.6 Sourcing and Placement of Fill Material

Fill material for land reclamation can be sourced from two primary locations:

Offshore Dredged Material: Sediment can be obtained by dredging the offshore areas and pumping it into the reclamation area. Such sediment is subject to quality screening to establish its suitability for reclamation purposes. Any dredged material encountered that is deemed unsuitable for reclamation will be disposed of at the port's existing approved offshore dredged sediment disposal site (Figure 6-1), in accordance with the dredging EMP protocols.

Onshore Quarries: Sand and gravel can be sourced from licensed quarries outside Lüderitz town. Such quarries are subject to separate EIA processes as per requirements of the EMA.

6.2.2.7 Construction of Jetty

The jetty structure will have a piled foundation system supporting a heavy-duty concrete deck, designed to accommodate the weight and operational requirements of large marine vessels and associated infrastructure. Construction of the jetty will see concrete piles and concrete decking being cast on land. Piles will subsequently be driven into the sediment and the decking installed on the piles

6.2.2.8 Installation of Capping Wall and Service Tunnel

Upon completion of the quay wall and backfilling reclamation process, a reinforced concrete capping wall will be constructed atop the quay structure. This wall will incorporate a service tunnel designed to house essential quayside utilities, including water supply, electrical distribution, communications, and fuel lines required for vessel servicing.

6.2.2.9 Extension of Onshore Services

To ensure seamless integration with existing port infrastructure, the following onshore services will be extended into the newly reclaimed area:

- ◆ Internal access roads
- ◆ Water supply and sewerage networks
- ◆ Electrical and lighting systems
- ◆ Storm water drainage and fire protection infrastructure

These installations will follow existing design standards and environmental safeguards to maintain operational continuity and minimize terrestrial impact.

6.2.3 Operations

Operations of the new port area will be similar to the operations of the current port footprint and be on a landlord and tenant principle. Port tenants conducting activities which are also listed in the EMA as requiring environmental clearance, will be subject to their own environmental assessment, with an EMP which must align with that of Namport.

Port infrastructure under direct control of Namport will require periodic maintenance, replacement or upgrade in order to ensure continued functionality. Construction of completely new infrastructure as the demand for various port services and facilities change, may also be required. Some aspects of such construction activities may require their own environmental assessment or amendment of the port's EMP, depending on the type and scale of the proposed construction activity.

7 ALTERNATIVES

Various alternatives are considered. These mainly relate to location, construction methods and type of infrastructure, and the no go alternative. These are discussed below.

7.1 LOCATION

No alternative location is proposed for Phase 2. The selected site is within the existing Port of Lüderitz footprint and represents an area that is currently underutilised due to the presence of the defunct wooden jetty and older associated infrastructure, which constrain efficient use of the area. Developing the project within the harbour environment is expected to result in the least additional environmental disturbance, while also avoiding unnecessary disruption to broader port operations. The proposed land reclamation and new concrete jetty are intended to improve the functionality of this section of the harbour by providing additional berthing interface and operational backup space to support typical port activities such as vessel servicing, cargo handling and associated logistics.

7.2 CONSTRUCTION METHODS

Table 7-1 presents some alternatives under consideration for the port expansion project.

Table 7-1 Construction method alternatives

Alternative	Advantages	Disadvantages	Preferred Option
Quay Wall Construction			
Steel Sheet Pile Retaining Wall	<ul style="list-style-type: none"> ◆ Faster construction time ◆ Reduced costs ◆ Can accommodate some ground movement and differential settlement 	<ul style="list-style-type: none"> ◆ Susceptible to corrosion ◆ Regular maintenance required ◆ Requires tie-back anchors to increase load bearing capacity ◆ High noise and vibration levels during installation of sheet pile 	<ul style="list-style-type: none"> ◆ Steel sheet pile retaining wall due to shorter construction period and reduced costs
Reinforced Concrete Deck on Piles	<ul style="list-style-type: none"> ◆ Increased durability ◆ Lower maintenance ◆ High load bearing capacity ◆ Lower noise and vibration impact when pre-drilling (boring) is conducted 	<ul style="list-style-type: none"> ◆ Slower construction time ◆ Increased costs ◆ Rigid structure sensitive to differential settlement 	
Fill Material for Reclamation			
Dredged Sediments	<ul style="list-style-type: none"> ◆ Dual purpose – deepening of port and reclamation 	<ul style="list-style-type: none"> ◆ Sediments may not be of suitable quality 	<ul style="list-style-type: none"> ◆ Dredged sediments if suitable quality available

Alternative	Advantages	Disadvantages	Preferred Option
	<ul style="list-style-type: none"> ◆Cheaper ◆Reduced heavy vehicle traffic through town to the port 		
Onshore Quarry Material	<ul style="list-style-type: none"> ◆Suitable material can easily be identified 	<ul style="list-style-type: none"> ◆High traffic volumes through town ◆Expensive ◆Terrestrial impacts at quarry 	
Water Supply			
NamWater Koichab Supply Scheme	<ul style="list-style-type: none"> ◆Already available and reticulated to the existing port 	<ul style="list-style-type: none"> ◆Could create water supply disruptions to Lüderitz if supply is not sustainable 	<ul style="list-style-type: none"> ◆NamWater Koichab Supply Scheme if sustainable supply is confirmed
Desalinated Water (Mobile Unit)	<ul style="list-style-type: none"> ◆Being a mobile unit it can quickly be commissioned ◆No additional pressure on NamWater supply 	<ul style="list-style-type: none"> ◆Additional localised impacts on marine environment through brine return ◆More expensive 	

8 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 in Table 8-1 to Table 8-3 govern the environmental assessment process in Namibia and/or are relevant to the project.

Table 8-1 Namibian law applicable of specific interest

Law	Key Aspects
The Namibian Constitution	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ Commencement of the Environmental Management Act. ◆ List activities that requires an environmental clearance certificate. ◆ Provide Environmental Impact Assessment Regulations.
Namibian Ports Authority Act Act No. 2 of 1994, Government Notice No. 30	<ul style="list-style-type: none"> ◆ Provides for the establishment of the Namibian Ports Authority to undertake the management and control of ports.

Law	Key Aspects
Territorial Sea and Exclusive Economic Zone of Namibia Act Act No. 3 of 1990, Government Notice No. 28	<ul style="list-style-type: none"> ◆ Determine and define the territorial sea, internal waters, contiguous zone, exclusive economic zone and continental shelf of Namibia.
Marine Resources Act Act No. 27 of 2000, Government Notice No. 292	<ul style="list-style-type: none"> ◆ Provide for the conservation of the marine ecosystem and the responsible administration, conservation, protection and promotion of marine resources on a sustainable basis. <ul style="list-style-type: none"> ○ Declaration of the Namibian Islands' Marine Protected Area: Marine Resources Act (2009). ○ Regulations relating to Namibian Islands' Marine Protected Area: Marine Resources Act, 2000 (2012).
Water Resources Management Act Act No. 11 of 2013, Government Notice No. 332 of 2013	<ul style="list-style-type: none"> ◆ Provide for management, protection, development, use and conservation of water resources. ◆ Prevention of water pollution and assignment of liability. ◆ Licensing for abstraction of water and disposal of wastewater.
Dumping At Sea Control Act Act No. 73 of 1980, Government Notice No. 1149	<ul style="list-style-type: none"> ◆ Provide for the control of dumping of substances in the sea.
Marine Traffic Act Act No. 2 of 1981, Government Notice No. 282	<ul style="list-style-type: none"> ◆ Regulate marine traffic in Namibia.
Prevention and Combating of Pollution of the Sea by Oil Act Act No. 6 of 1981, Government Notice No. 342	<ul style="list-style-type: none"> ◆ Provides for the prevention of pollution of the sea where oil is being or is likely to be discharged.
Prevention and Combating of Pollution of the Sea by Oil Amendment Act Act No. 24 of 1991, Government Notice No. 150	<ul style="list-style-type: none"> ◆ Amends the Prevention and Combating of Pollution of the Sea by Oil Act of 1981 to be more relevant to Namibia after independence.
Aquaculture Act Act No. 18 of 2002	<ul style="list-style-type: none"> ◆ Regulates aquaculture activities to ensure sustainable development. ◆ Provides for water quality monitoring to protect aquaculture activities.
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	<ul style="list-style-type: none"> ◆ Define the powers, duties and functions of local authority councils. ◆ Regulates discharges into sewers.
Regional Councils Act Act No. 22 of 1992; Government Notice No. 115	<ul style="list-style-type: none"> ◆ Sets out the powers, duties, functions, rights and obligations of Regional Councils. ◆ Provides the legal basis for the drawing up of Regional Development Plans.

Law	Key Aspects
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	<ul style="list-style-type: none"> ◆ 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.
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	<ul style="list-style-type: none"> ◆ 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).
National Heritage Act of Namibia Act No. 27 of 2004	<ul style="list-style-type: none"> ◆ Provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. ◆ Provides for reporting of heritage finds, issuing of permits, and archaeological impact assessments.
Namibia's Draft Wetland Policy (2004 Draft)	<ul style="list-style-type: none"> ◆ Aims to protect and conserve wetland diversity and ecosystem functioning without compromising human needs. ◆ Promote the integration of wetland management into other sector policies. ◆ Recognise and fulfil Namibia's international and regional obligations concerning wetlands, including those laid down in the Ramsar Convention and the SADC Protocol on Shared Water Systems.
Integrated Coastal Zone Management Bill of 2014	<ul style="list-style-type: none"> ◆ Aims at coastal management and give effect to Namibia's obligations in terms of international law regulating coastal management. ◆ Not adopted yet.
Hazardous Substances Ordinance Ordinance No. 14 of 1974	<ul style="list-style-type: none"> ◆ The ordinance's primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.
National Marine Pollution Contingency Plan of 2017	<ul style="list-style-type: none"> ◆ Coordinated and integrated national system for dealing with oil spills in Namibian waters.

Table 8-2 Relevant multilateral environmental agreements for Namibia

Agreement	Key Aspects
Stockholm Declaration on the Human Environment, Stockholm 1972	<ul style="list-style-type: none"> ◆ 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.
United Nations Framework Convention on Climate Change (UNFCCC)	<ul style="list-style-type: none"> ◆ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention.
Convention on Biological Diversity, Rio de Janeiro, 1992	<ul style="list-style-type: none"> ◆ Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity.
Benguela Current Convention of 2013	<ul style="list-style-type: none"> ◆ The Convention is a formal treaty between the governments of Angola, Namibia and South Africa that sets out the countries' intention "to promote a coordinated regional approach to the long-term conservation, protection, rehabilitation, enhancement and sustainable use of the Benguela

Agreement	Key Aspects
	Current Large Marine Ecosystem, to provide economic, environmental and social benefits.
Abidjan Convention of 1981	<ul style="list-style-type: none"> ◆ The Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region. ◆ Provides an overarching legal framework for all marine-related programmes in West, Central and Southern Africa.
International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC 1990)	<ul style="list-style-type: none"> ◆ International maritime convention establishing measures for dealing with marine oil pollution incidents nationally and in co-operation with other countries.

Table 8-3 Standards or Codes of Practise

Standard or Code	Key Aspects
Namport Specifications and Legislation	<ul style="list-style-type: none"> ◆ Enforced standards and codes which governs construction and operations relating to the port. ◆ Includes the EMP of the Port of Lüderitz.

8.1 THE ENVIRONMENTAL MANAGEMENT ACT

The project is listed as an activity requiring an environmental clearance certificate as per the following points from Section 8 and 10 of Government Notice No. 29 of 2012 of the Environmental Management Act:

Water Resource Developments

8.1 The abstraction of ground or surface water for industrial or commercial purposes – only applicable if desalinated water will be used during the construction or operational phase.

8.10 Reclamation of land from below or above the high-water mark of the sea or associated inland waters – Reclamation of land constitutes a major activity during the expansion of the port.

8.12 The release of brine back into the ocean by desalination plants - only applicable if desalinated water will be used during the construction or operational phase.

Infrastructure

10.1 The construction of-

(c) railways and harbours – a new area is developed as a harbour.

9 ENVIRONMENTAL CHARACTERISTICS

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

9.1 LOCALITY AND SURROUNDING LAND USE

The proposed port expansion project will take place in Lüderitz Bay and specifically in what is known as Robert Harbour, where the Port of Lüderitz is situated (Figure 1-1). All port expansion activities will take place within the port boundaries of Namport, but sourcing of filling material may be from licenced quarries in the region with suitable fill material.

South to southeast of the project area is the Lüderitz Waterfront. To the west is the existing harbour. Shark Island, an area with significant heritage history is located +500 m northeast of the project area (see Section 9.4) (Figure 9-1). It was declared a heritage site in terms of the National Heritage Act in 2019. However, until mid-2025, Shark Island continued to be under the

management of Namibia Wildlife Resorts as a campsite. It was then placed under the management of the National Heritage Council (NHC) and camping is thus no longer allowed.

Onshore and offshore land use in and around Lüderitz include mariculture, fishing and fish processing, port operations, as well as a variety of residential, tourism, business and industrial related uses. Lüderitz in its entirety is surrounded by the Tsau //Khaeb (Spergebiet) National Park and Namibian Islands' Marine Protected Area (NIMPA) (Figure 9-2). Almost the entire coastline around Lüderitz falls within one of the numerous mining and exclusive prospecting licence areas. The harbour and proposed expansion areas are within diamond mining licence area ML-32.

Prior to German colonial rule, Lüderitz was the territory of the local Nama people. Today the !Aman Traditional Authority is regarded as having jurisdiction over the area of Lüderitz, in so far as the Traditional Authorities Act makes provision therefor.

Implications and Impacts

Jurisdiction over the existing harbour and proposed expansion area is a mix between the Ministry of Works and Transport (ports, marine traffic and pollution control), MAFWLR (authority over the offshore environment and NIMPA), Ministry of Industries, Mines and Energy (mining and exploration), and the !Aman Traditional Authority. Support for the development therefore needs to come from various authorities in order for its successful implementation.

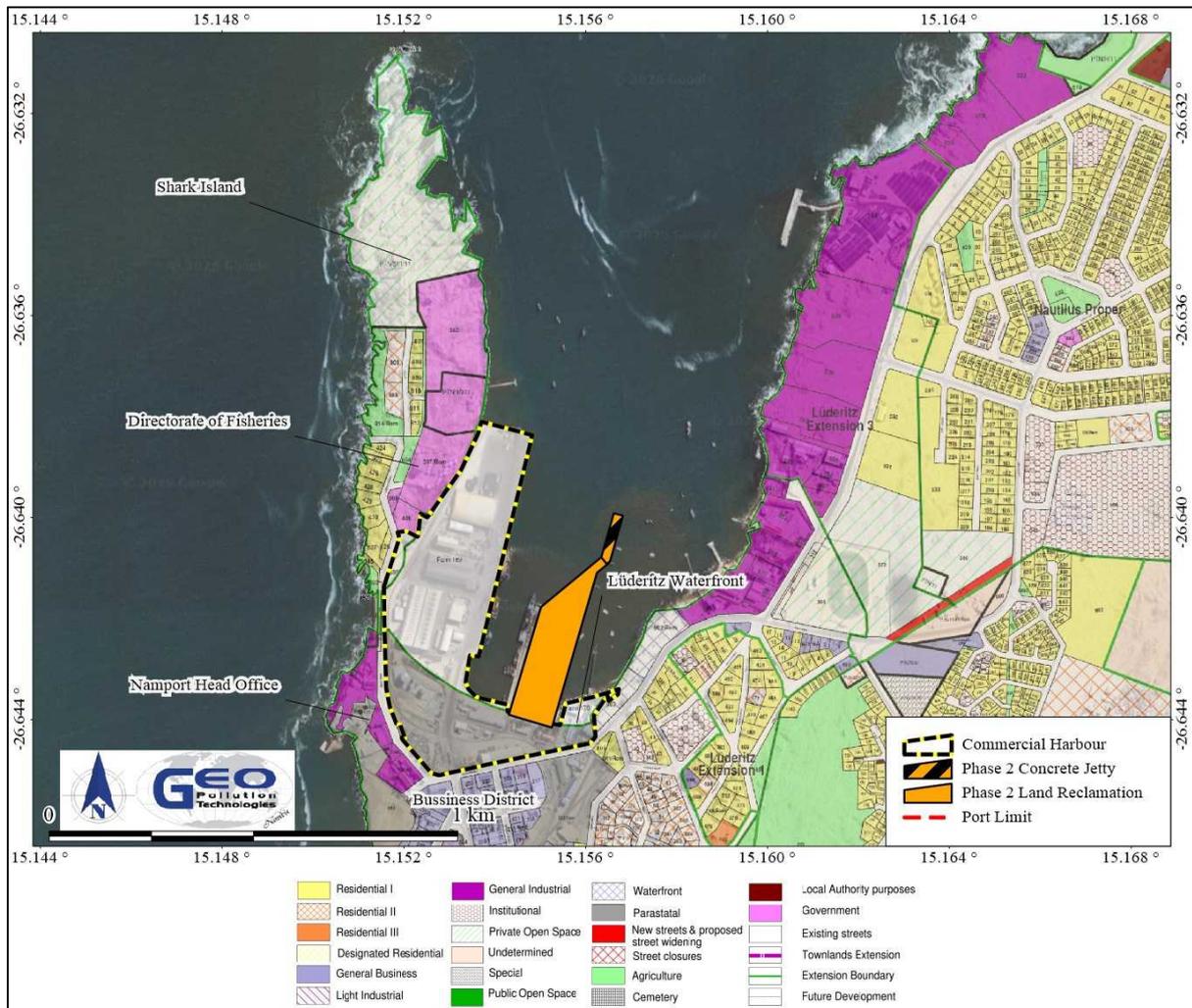


Figure 9-1 Surrounding land use

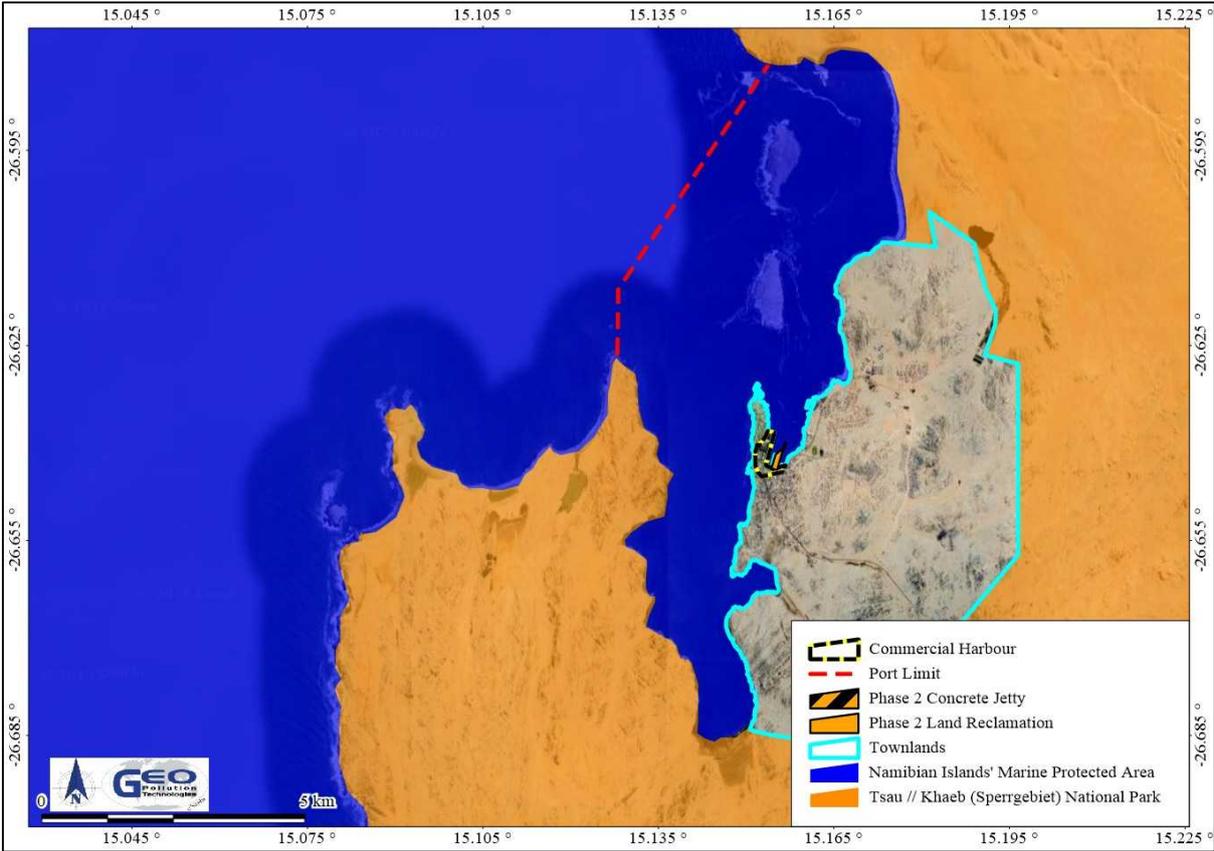


Figure 9-2 Lüderitz in relation to protected areas

9.2 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 (Mendelsohn et al., 2002; Bryant, 2010).

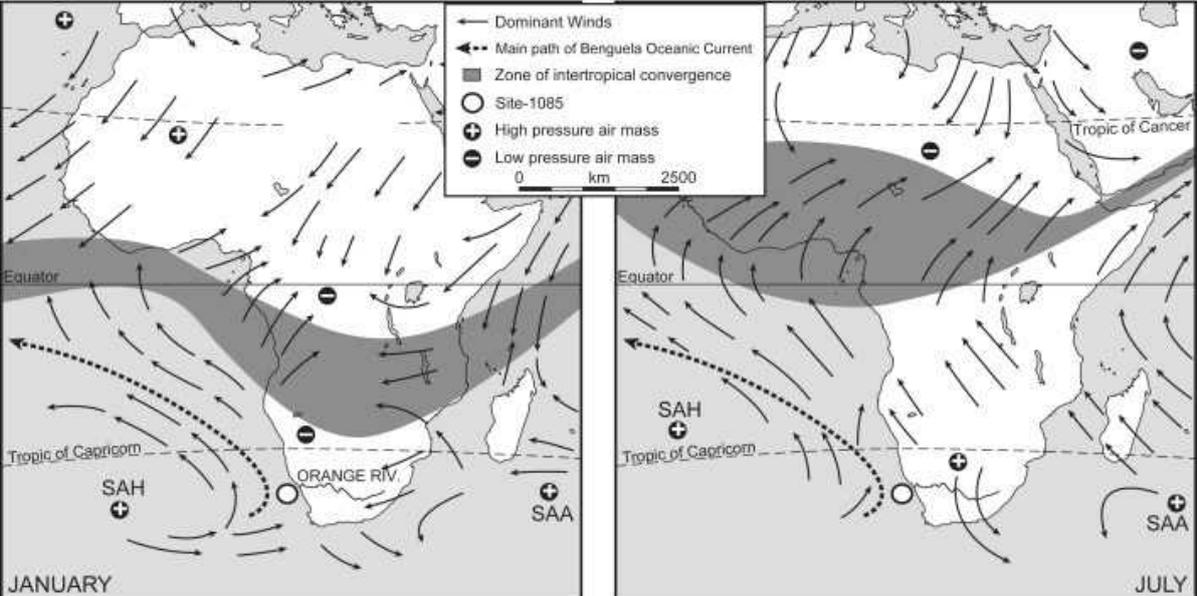


Figure 9-3 Map indicating the Intertropical Convergence Zone, Subtropical High Pressure Zone (SAH+), Benguela Current and Temperate Zone south of Tropic of Capricorn (not indicated) (from: <http://www.meteoweb.eu>)

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.

The anticlockwise circulation of the high pressure SAH and the action of the earth's Coriolis force result 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.

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. These winds manifest themselves in the form of strong prevailing south to south-westerly winds, which range from an average of 20 knots (37 km/h) during winter months to as high as 60 knots (111 km/h) during the summer (Table 9-1). Daily fluctuations in wind speed are characterised by calmer winds in the morning with strong wind from late morning to late afternoon. During winter, the east winds generated over the hot Namib Desert have a strong effect on temperature, resulting in temperatures in excess of 30 °C and tend to transport plenty of sand.

Throughout the year the prevailing night time wind is a weak easterly wind. This results from the mainland cooling 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.

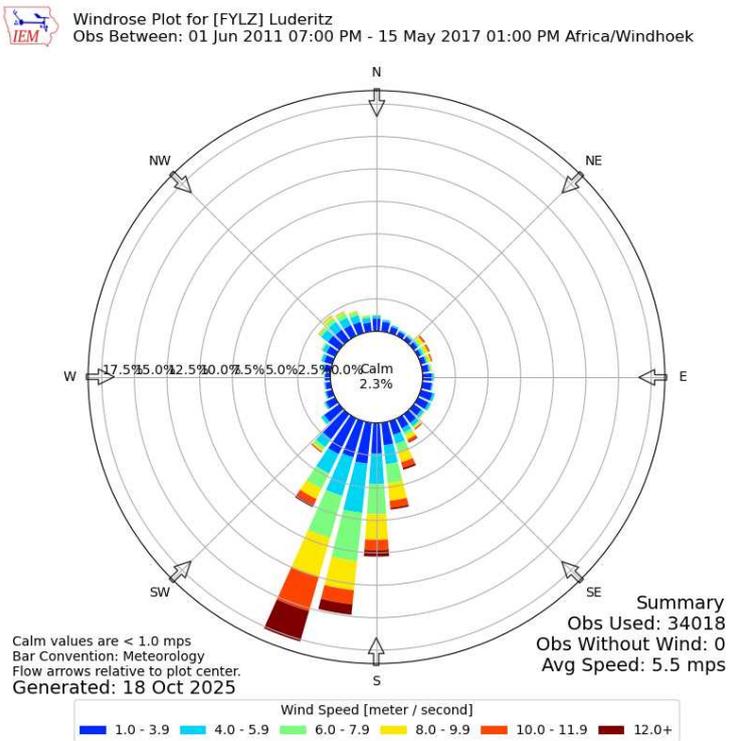
Temperature at Lüderitz is strongly regulated by the cold Benguela current. As a result, there is typically limited variation between diurnal and seasonal temperatures. Average annual temperatures are approximately 16 °C with the maximum temperature seldom above 24 °C and minimums rarely below 9 °C (Table 9-1). 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. As one moves inland from Lüderitz, daytime temperatures increases rather quickly while night time temperatures can get significantly colder in the desert environment.

Rainfall is typically low with high variability of 80% to 90%. This results in average annual rainfall figures between 0 and 50 mm. Occasional however, high rainfall events do occur. One such occasion was when 102 mm of rain was recorded at Lüderitz between 16 and 23 April 2006 (Eckardt et al., 2012).

Implications and Impacts

The characteristic windy conditions of Lüderitz play a role in the movement of the water masses in the various bays, inlets and channels between the islands. It also influence wave action and is one of the main determining factors when planning for port expansion. Wind also plays an important role in the dispersal of noise, either increasing or decreasing noise levels at receptors, depending on direction and speed.

Table 9-1 Summary of climate data (Atlas of Namibia Project, 2002)

Average annual rainfall	0-50 mm; half of the rainfall occurs from May to June
Variation in annual rainfall	80 – 90%
Average annual evaporation	2,400-2,600 mm
Average annual water deficit	1,701-1,900 mm
Temperature	Average maximum: Between 24 °C in March/April and 19.3 °C in September Average minimum: Between 16.5 °C in February and 9.1 °C in August Annual average: ≈16 °C
Fog	Approximately 126.7 days of fog per year
Wind	Prevailing wind strong south-westerly
All year wind rose for the period 12 April 2000 to 18 October 2025 for the Lüderitz Airport (http://mesonet.agron.iastate.edu/)	 <p>Windrose Plot for [FYLZ] Lüderitz Obs Between: 01 Jun 2011 07:00 PM - 15 May 2017 01:00 PM Africa/Windhoek</p> <p>Summary Obs Used: 34018 Obs Without Wind: 0 Avg Speed: 5.5 mps</p> <p>Calm values are < 1.0 mps Bar Convention: Meteorology Flow arrows relative to plot center. Generated: 18 Oct 2025</p> <p>Wind Speed [meter / second] 1.0 - 3.9 4.0 - 5.9 6.0 - 7.9 8.0 - 9.9 10.0 - 11.9 12.0+</p>

9.3 CORROSIVE ENVIRONMENT

The corrosive environment of Lüderitz can be closely related to that of Walvis Bay. Figure 9-4 indicates corrosion data for Walvis Bay compared with other centres in southern Africa (Callaghan, 1991). The corrosive environment may be attributed to the frequent salt-laden fog, periodic winds and abundance of aggressive salts (dominantly sodium chloride and sulphates) in the soil. The periodic release of hydrogen sulphide (H₂S) from the ocean is expected to contribute to corrosion. 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.

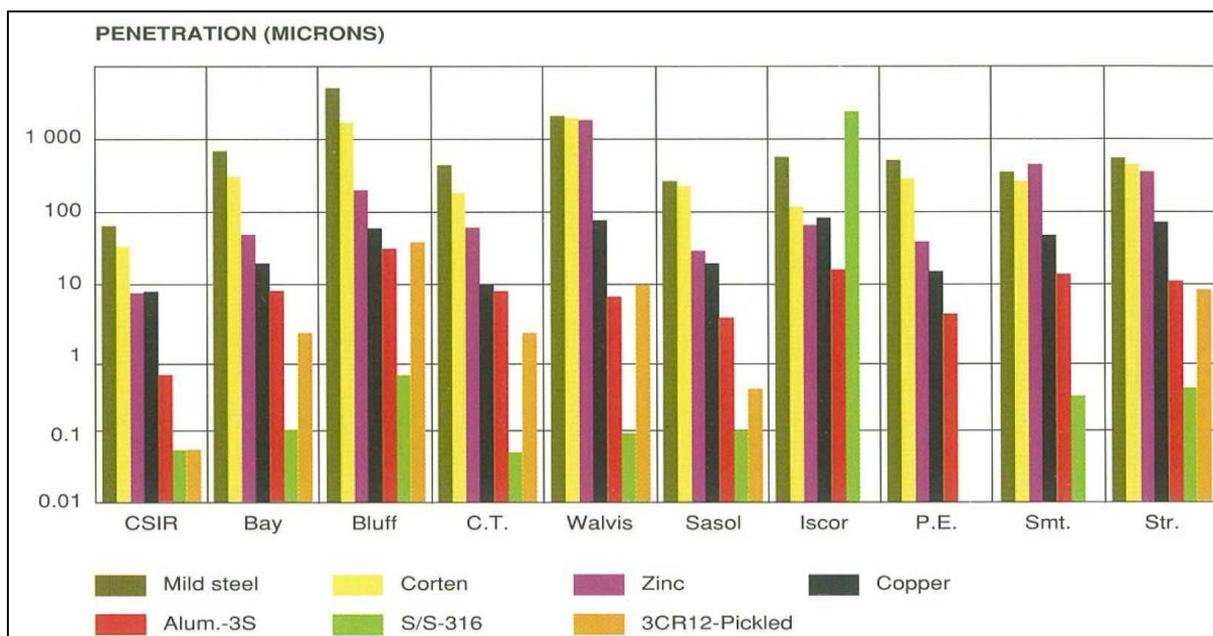


Figure 9-4 Twenty year corrosion exposure results in southern African towns (Callaghan, 1991)

Implications and Impacts

Corrosion levels may be high and must be kept in mind when planning construction activities to ensure longevity of infrastructure.

9.4 TOPOGRAPHY

The whole of Lüderitz Bay area is characterized by mostly rocky shores with small, scattered sandy bays and lagoons (Figure 9-5). Offshore within Lüderitz Bay are small rock island formations namely Shark-, Penguin-, Seal- and Flamingo Island (Figure 9-5). The intertidal habitats found between Robert Harbour and North East Point, inclusive of the islands, as well as those of Lüderitz Harbour and Second Lagoon, comprise mostly of sheltered and exposed rocky shores, mixed sand and rocky shores and small sandy enclaves (NSI, 2012).

The port itself is partially located on Shark Island, which was linked to the mainland through land reclamation in the early 1900's. Lüderitz Bay is generally shallow with depths ranging from around 3 mbs in the inner harbour to 6 to 8 mbs in the middle of Robert Harbour (Menai Creek) and in Lüderitz Harbour west of Shark Island (Figure 9-6). The depths west of Penguin Island and north of Lüderitz Harbour reach 10 to 15 mbs.



Figure 9-5 Major bays, beaches and islands in relation to the port expansion area

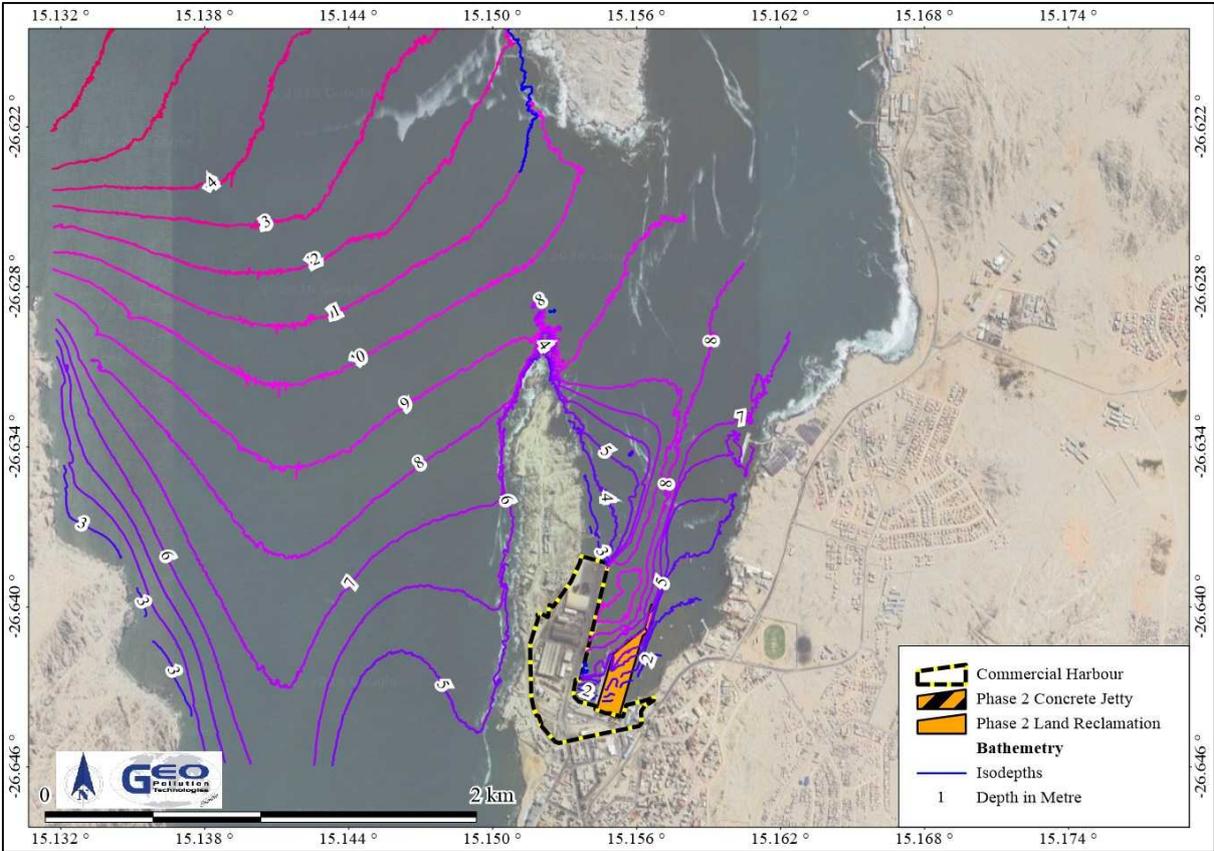


Figure 9-6 Bathymetry in relation to the port expansion area

Implications and Impacts

The topography of the area provides for sheltered areas with relatively calm waters and this allows for the presence of the Port of Lüderitz. The mainland is sheltered from open ocean wave action and deposition and erosion processes associated with longshore drift. The rocky coastline restricts the dynamic shoreline processes which are more prevalent along sandy shores. Limited water depth and the presence of hard rock substrates are the limiting factors in the development of a deepwater port.

9.1 GEOLOGY AND HYDROGEOLOGY

The area around Lüderitz is dominated by a desert with dunes and crystalline rock outcrops of the Mid-Proterozoic Era. This includes geology from the Namibian- and Mokolian Age. The Mokolian Age rocks is the oldest to be found in Namibia, dating back to 2,200 Ma. Quaternary deposits in the form of sand shifting dunes were formed by eroded sands that have been transported to the area by water and wind. The dunes occurs 7 km northeast of the project area.

The subsurface geology consist of rocks from the Mokolian Age. This subsurface geology consists primarily of gneiss and granites of the Namaqua Metamorphic Complex. The gneiss is mainly of pre- to syntectonic biotite-rich augen gneiss.

The local and regional geology were subjected to numerous events of deformation which led to the formation of geological folds, faults, fractures and thrusts. Groundwater flow would be mostly along fractures, faults (secondary porosity) and other geological structures present within the formations as well as through primary porosity in the unconsolidated top cover. No known permanent natural fresh surface water sources exist near Lüderitz. No known boreholes are present within the immediate surroundings of Lüderitz.

Implications and Impacts

The presence of hard rock at shallow depths below the surface within Robert Harbour limits port depth and will influence construction methods.

9.2 THE MARINE ENVIRONMENT

This section deals with various aspects, including physical processes and conditions, of the marine environment that may potential affect, or be affected by, the port expansion.

9.2.1 Hydrodynamic Conditions

The Namibian coastline is characterised by the cold, northward flowing Benguela Current. Accounts of current speed varies between different literature sources, but in general estimates range between 0.10 m/s to 0.35 m/s, with a mean speed estimated at around 17 m/s (Shannon, 1985; O'Toole, 1997; Wedepohl et al., 2000; NSI, 2012). As the Benguela Current passes Diaz Point in a northerly direction, it diffracts eastwards and flow into Lüderitz Bay (NSI, 2012).

As a result of the topography in the bay (e.g. islands), Robert Harbour is relatively sheltered with a negligible current in Menai Creek, apart from a tidal current sometimes occurring on the east side of Shark Island during flood tide (NSI, 2012). Current velocity in Robert Harbour is about 0.1 m/s, but towards North Harbour and North East Point it can exceed 15 m/s (HPC Hamburg Port Consulting GmbH, 2007). These currents are mostly wind and tide driven and given the predominantly south-westerly winds, the currents flow northwards out of the bay and past North East Point. Within Robert Harbour water circulation is anti-clockwise with surface currents influenced by wind direction. In general it is believed that local currents are predominantly wind driven with a northward surface movement and counter southward bottom movement of water. At Lüderitz Harbour, water exchange in Second Lagoon is estimated to occur every 3 to 5 days in winter and 7 to 8 days in the summer months (Liebner and Partners, 1967 in NSI, 2012).

Waves mainly originate from a southerly to south-westerly direction and is largely influenced by wind (Pulfrich, 2010b). Waves are diffracted and reflected by Diaz Point, Angra Point and Shark Island as it enters Lüderitz Bay. The result is waves, with diminished wave height of less than 0.5 m, entering from the north into Robert Harbour. During strong north to north-westerly winds, waves entering Robert Harbour can however reach heights of up to 1 m. General tide and sea-level data for Lüderitz are presented in Table 9-2. Chart datum is equal to the lowest astronomical tide (LAT) being zero and is -1.055 m relative to land levelling datum (mean sea level is commonly used to refer to land levelling datum). Chart datum used to be -0.94 m in relation to land levelling datum until 2003, but was set to -1.055 m in 2003.

Table 9-2 Tide and sea-level data for Lüderitz (HPC Hamburg Port Consulting GmbH, 2007)

Hydrological conditions	Description
Land Levelling Datum (Mean Sea Level)	+1.055 mCD
Mean Level (Mean of MHWS, MLWS, MHWN, MLWN)	+0.94 mCD
Tidal Pattern	Semidiurnal
Tidal Range	1.42 m on a spring tide and 0.57 m on a neap tide
Lowest Astronomical Tide (LAT)	-0.0 mCD
Highest Astronomical Tide (HAT)	+1.99 mCD
Mean High Water Springs (MHWS)	+1.65 mCD
Mean Low Water Springs (MLWS)	+0.23 mCD
Mean High Water Neaps (MHWN)	+1.22 mCD
Mean Low Water Neaps (MLWN)	+0.63 mCD

Implications and Impacts

Current velocity and direction are important for predicting where dredging plumes and spills will go and how quickly they will disperse. Sensitive receptors most likely to be influenced by such plumes are seawater intakes (water quality and particulate matter), mariculture areas (water quality) and Radford Bay and Second Lagoon (water quality and sedimentation), as well as ecologically significant rocky shores and reefs.

Wave action is more pronounced on the eastern side of Robert Harbour, thus limiting port development opportunities in this area. Fishing industries operating from this area can also not always use their own jetties and must make use of the port when increased wave action is experienced.

9.2.2 Upwelling, Sediments, Algal Blooms and Sulphur Eruptions

Strong upwelling of cold, nutrient rich water along the Namibian coast is one of the key environmental characteristics of the Benguela Current. The magnitude of upwelling is strongly influenced by wind and it leads to high biological productivity supporting significant fish populations (O'Toole, 1997; Pulfrich, 2010b). Lüderitz is reported to be situated within the most intense upwelling system (O'Toole, 1997; Pisces, 2003). An abundance of nutrients are brought from the sediments on the sea floor by this upwelling system to the photic zone. Large amounts of dead phyto- and zoo-plankton, which bloom as a result of this nutrient flux, settle on the seafloor together with silt, and contributes to anoxic conditions in the vicinity of Lüderitz and result in the occasional hydrogen sulphide eruption (Pulfrich, 2010b; NSI, 2012).

The biological fallout, together with inorganic particles to a lesser extent, forms layers of organic sediment or "mud belts" on the sea floor. These can be between three and four metres thick and is specifically noticeable at Walvis Bay (COWI, 2006). Lüderitz is situated at the northern limit of one such mud belt whose organic carbon content exceeds 15% in places (COWI, 2003).

Low oxygen levels related to the mud belt develop in two ways. Firstly, localised, small scale nutrient remineralisation, resulting in oxygen deficient conditions, occur in the bottom waters of the Benguela system. This process is dependent on the organic material build-up in the sediments. Low oxygen conditions affect marine biota and can have sub-lethal effects, such as reduced growth and feeding, and increased inter-moult period in the rock lobster populations. (During the summer months of upwelling, lobsters show a seasonal inshore migration, and during periods of low oxygen become concentrated in shallower, better-oxygenated near-shore waters.) The impacts of port construction activities, like dredging, at this time of year could exacerbate the problem by altering near-shore water quality and in particular oxygen levels in the shallow waters. The second natural cause of low oxygen levels in the ocean can be attributed to harmful algal blooms. These larger scale events can create low oxygen events having catastrophic effects on the marine communities leading to large-scale stranding of rock lobsters, and mass mortalities of white mussels, rocky shore biota and fish. These events are however an infrequent occurrence along the southern coast of Namibia.

Hydrogen sulphide accumulates in the sediments as a result of anaerobic bacteria reducing sulphates in the absence of oxygen to obtain energy. This produces hydrogen sulphide and when sufficient pressure is reached a hydrogen sulphide (or sulphur) eruption occur. The abundance of hydrogen sulphide in the water kills or drives away many marine organisms and reduces air quality at the surface. During dredging the risk of releasing hydrogen sulphide gas is present. Such eruptions are accompanied by a characteristic pungent smell along the coast and the sea takes on a lime green colour. These eruptions have been known to occur off the Namibian coast for centuries and the biota in the area are likely to be naturally adapted to such pulsed events, and to subsequent hypoxia. Recent surveys point to more frequent, more extensive and protracted eruptions than previously observed.

Assessment of the sediments in Robert Harbour (Menai Creek), when the concrete quay (east side of Shark Island) was expanded in 1998, showed that they consisted primarily of silt and clay fractions which were unsuitable for reclamation purposes (COWI, 2006). Subtidal sediments in Lüderitz are dominated by fine sand and depths for the most part are less than 10 m (NSI, 2012). Below these sediments, the bedrock of the surrounding formations, was found.

Harbour sediments often contain elevated concentrations of toxic compounds, most typically heavy metals, poly aromatic hydrocarbons (PAH) and/or tributyltin (TBT). TBT originates from marine paints which typically contain an agent to prevent fouling of the ship with barnacles and other organisms, which eventually will slow the ship and impede its movements (COWI, 2003). Samples of the harbour and bay sediments were taken prior to the dredging carried out in 2015. The samples were analysed for a wide range of organic contaminants and heavy metals. The sediment samples were analysed for more than 200 different elements and compounds including heavy metals, mono aromatic compounds, phenols, polycyclic aromatic hydrocarbons, polychlorinated biphenyls and pesticides. Those contaminants that were detected in the samples are presented in Table 9-3. A number of heavy metals exceeded the Benguela Current Large Marine Ecosystem (BCLME) guideline values as well as the BCLME probable effect concentrations. From Table 9-3 it is evident that metal concentrations are higher closer to the harbour, which is to be expected given the industrial nature of harbour activities.



Figure 9-7 Sediment sampling locations for the 2015 dredging campaign (Botha and Faul, 2015)

Table 9-3 Sediment analysis results (samples 1 to 6) prior to the 2015 dredging campaign (Botha and Faul, 2015)

Luderitz Harbour Baseline Sediment Sampling							
Project number	G139-19						
Certificate number	2015124099						
Certificate number	2015124091						
Start date	05-11-2015						
Report date	12-11-2015						
Date sampling	28-10-2015						
Sampler	I.White/A. Faul						
Map Number		1	2	3	4	5	6
Analysis	Unit	BCLME Sediment (Recommended Guideline Value)	BCLME Sediment (Probable Effect Concentration)				
TerrAttesT							
Version number				7.23	7.23	7.23	7.23
Characteristics							
Dry matter	% (w/w)			51.2	46.6	45.9	40.7
Organic matter	% (w/w) dm			8.8	10.4	10.7	12
Fraction < 2 µm (Clay)	% (w/w) dm			9.4	13.6	11.8	18.4
Metals							
Arsenic (As)	mg/kg dm	7.24	41.6	7	7.1	7	7.5
Barium (Ba)	mg/kg dm	No Value	No Value	56	63	64	65
Cadmium (Cd)	mg/kg dm	0.68	4.21	1.1	1	0.87	0.84
Chromium (Cr)	mg/kg dm	52.3	160	71	80	79	89
Copper (Cu)	mg/kg dm	18.7	108	16	18	17	20
Lead (Pb)	mg/kg dm	30.2	112	8.4	8.9	8.6	9.4
Molybdenum (Mo)	mg/kg dm	No Value	No Value		1.1		1.1
Nickel (Ni)	mg/kg dm	15.9	42.8	21	23	24	25
Vanadium (V)	mg/kg dm	No Value	No Value	37	39	38	40
Zinc (Zn)	mg/kg dm	No Value	No Value	52	56	55	60
Cobalt (Co)	mg/kg dm	No Value	No Value	5.9	6.3	6.1	6.4
Phenols							
p-Cresol	mg/kg dm	No Value	No Value	0.03	3.1		1.8
Cresols (sum)	mg/kg dm	No Value	No Value	0.03	3.1		1.8
Phenol	mg/kg dm	No Value	No Value		1.5		0.08
Polycyclic Aromatic Hydrocarbons							
Pyrene	mg/kg dm	153	1398	0.01	0.01	0.01	0.02
PAH 16 EPA (sum)	mg/kg dm	1684	16770	0.06	0.03	0.01	0.05
Phenanthrene	mg/kg dm	86.7	544	0.01			0.01
Fluoranthene	mg/kg dm	113	1494	0.02	0.02	0.01	0.03
Chrysene	mg/kg dm	108	846	0.01			0.01
Benzo(b)fluoranthene	mg/kg dm	No Value	No Value				0.01
PAH 10 VROM (sum)	mg/kg dm	No Value	No Value	0.04	0.02	0.01	0.05
Benzo(a)anthracene	mg/kg dm	74.8	693				0.01
Benzo(k)fluoranthene	mg/kg dm	No Value	No Value				0.01
Benzo(a)pyrene	mg/kg dm	88.8	763				
Phtalates							
Bisethylhexylphtalate	mg/kg dm	No Value	No Value				
Phtalates (sum)	mg/kg dm	No Value	No Value				
Butylbenzylphtalate	mg/kg dm	No Value	No Value				
Total Petroleum Hydrocarbons							
TPH (C12-C16)	mg/kg dm	No Value	No Value			6.1	7.4
TPH (C30-C35)	mg/kg dm	No Value	No Value	7.5	8.2		7.6
TPH (C35-C40)	mg/kg dm	No Value	No Value				
TPH (C10-C12)	mg/kg dm	No Value	No Value				4
Miscellaneous Organic compounds							
Organotin sum Sn factor 0,7	mg Sn/kg dm	No Value	No Value	0.021	0.021	0.021	0.021
Organotin sum (factor 0.7)	mg/kg dm	No Value	No Value	0.057	0.057	0.057	0.057
Notes:							
Only parameters detected are reported on							
Not Detected / No Guideline Value							
< BCLME Sediment (Recommended Guideline Value)							
> BCLME Sediment (Recommended Guideline Value) < BCLME Sediment (Probable Effect Concentration)							
> BCLME Sediment (Probable Effect Concentration)							
> BCLME Sediment (Probable Effect Concentration) x 100							

Table 9-4 Sediment analysis results (samples 7 to 13) prior to the 2015 dredging campaign (Botha and Faul, 2015)

Luderitz Harbour Baseline Sediment Sampling										
Project number	G139-19									
Certificate number	2015124099									
Certificate number	2015124091									
Start date	05-11-2015									
Report date	12-11-2015									
Date sampling	28-10-2015									
Sampler	I.White/A. Faul									
Map Number		7	8	9	10	11	12	13		
Analysis	Unit	BCLME Sediment (Recommended Guideline Value)	BCLME Sediment (Probable Effect Concentration)							
TerrAttes T										
Version number				7.23	7.23	7.23	7.23	7.23		
Characteristics										
Dry matter	% (w/w)			36.5	36.4	37.7	36.8	38.6	34.5	32.4
Organic matter	% (w/w) dm			12.9	13.4	12.5	12.6	11.9	13.3	13.6
Fraction < 2 µm (Clay)	% (w/w) dm			19.7	18.3	19.3	19.1	18.7	20.8	18.9
Metals										
Arsenic (As)	mg/kg dm	7.24	41.6	8	7.6	8.3	8.4	8.2	8.5	8.7
Barium (Ba)	mg/kg dm	No Value	No Value	72	72	69	71	71	71	73
Cadmium (Cd)	mg/kg dm	0.68	4.21	0.87	0.85	0.9	0.89	0.87	0.88	0.88
Chromium (Cr)	mg/kg dm	52.3	160	99	100	96	110	97	100	99
Copper (Cu)	mg/kg dm	18.7	108	24	26	27	28	30	32	32
Lead (Pb)	mg/kg dm	30.2	112	11	13	13	13	14	16	17
Molybdenum (Mo)	mg/kg dm	No Value	No Value	1.4	1.3	1.3	1.5	1.3	1.2	1.2
Nickel (Ni)	mg/kg dm	15.9	42.8	28	28	27	28	27	28	28
Vanadium (V)	mg/kg dm	No Value	No Value	43	44	42	44	43	43	43
Zinc (Zn)	mg/kg dm	No Value	No Value	70	76	83	80	100	99	110
Cobalt (Co)	mg/kg dm	No Value	No Value	7	7	6.7	6.9	6.8	6.9	6.8
Phenols										
p-Cresol	mg/kg dm	No Value	No Value	0.02			2			
Cresols (sum)	mg/kg dm	No Value	No Value	0.02			2			
Phenol	mg/kg dm	No Value	No Value				0.16		0.02	
Polycyclic Aromatic Hydrocarbons										
Pyrene	mg/kg dm	153	1398	0.01	0.02	0.02	0.02	0.02	0.02	0.02
PAH 16 EPA (sum)	mg/kg dm	1684	16770	0.03	0.06	0.07	0.05	0.03	0.02	0.05
Phenanthrene	mg/kg dm	86.7	544		0.01	0.01	0.01			0.01
Fluoranthene	mg/kg dm	113	1494	0.02	0.02	0.03	0.02	0.02	0.02	0.02
Chrysene	mg/kg dm	108	846	0.01	0.02	0.02	0.02	0.01		0.02
Benzo(b)fluoranthene	mg/kg dm	No Value	No Value	0.01	0.01	0.02	0.01			0.01
PAH 10 VROM (sum)	mg/kg dm	No Value	No Value	0.03	0.06	0.07	0.05	0.03	0.02	0.05
Benzo(a)anthracene	mg/kg dm	74.8	693		0.01					
Benzo(k)fluoranthene	mg/kg dm	No Value	No Value							
Benzo(a)pyrene	mg/kg dm	88.8	763			0.01				
Phtalates										
Bisethylhexylphtalate	mg/kg dm	No Value	No Value	0.3			0.2		0.2	0.3
Phtalates (sum)	mg/kg dm	No Value	No Value	0.3			0.2		0.5	0.3
Butylbenzylphtalate	mg/kg dm	No Value	No Value						0.3	
Total Petroleum Hydrocarbons										
TPH (C12-C16)	mg/kg dm	No Value	No Value						5.8	
TPH (C30-C35)	mg/kg dm	No Value	No Value		6.4					
TPH (C35-C40)	mg/kg dm	No Value	No Value							
TPH (C10-C12)	mg/kg dm	No Value	No Value					6.4	9.5	3.7
Miscellaneous Organic compounds										
Organotin sum Sn factor 0,7	mg Sn/kg dm	No Value	No Value	0.021	0.021	0.021	0.021	0.021	0.021	0.021
Organotin sum (factor 0.7)	mg/kg dm	No Value	No Value	0.057	0.057	0.057	0.057	0.057	0.057	0.057
Notes:										
Only parameters detected are reported on										
Not Detected / No Guideline Value										
< BCLME Sediment (Recommended Guideline Value)										
> BCLME Sediment (Recommended Guideline Value) < BCLME Sediment (Probable Effect Concentration)										
> BCLME Sediment (Probable Effect Concentration)										
> BCLME Sediment (Probable Effect Concentration) x 100										

The possible re-suspension of sediments during construction activities will contribute to the nutrient load of the water column and possibly the re-suspension of contaminants such as heavy metals. The timing of dredging in the year, and thus the current velocity and directions, will determine to what extent this artificial introduction of nutrients and contaminants will disperse. Dredging of sediments will require adherence to the existing Port of Lüderitz EMP for dredging.

9.2.3 Turbidity

Turbidity is a measure of the optical clarity of water and presents an indication of the amount of light scattering particles in water. Its unit of measure is nephelometric turbidity units (NTU). When calibrated, turbidity is a representation of the concentration (or weight) of suspended particles in water or total suspended solids (TSS), which is measured as milligram of solids per millilitre of water (mg/ml). The water within Lüderitz Bay is characterized by relatively high turbidity. This mainly results from a combination of shallow water, coupled with wind induced waves and currents, which continuously bring sediment into suspension.

During dredging, sands and fine particulate matter (silts and clays) are released into the sea in the form of dredger overspill. Whereas the sand fraction settles rapidly, fine particles form turbid plumes which may under certain wind and wave conditions persist for a few days before dispersing. This may negatively impact on marine ecology and especially filter feeders. The release of associated nutrients from the dredged sediments will likely have further impacts on the environment.

Prior to the 2015 maintenance dredging exercise in the Port of Lüderitz, short term baseline turbidity conditions for the Lüderitz Bay area were determined at four locations within the Bay (Figure 9-8) (Botha and Faul, 2015). Average turbidity readings were determined for strategic locations around the dredging areas and then converted to TSS with a laboratory based determined turbidity to TSS conversion equation. The baseline turbidity and TSS data is presented in Table 9-4. The locations chosen were specifically monitored to observe and prevent possible impacts on sensitive receptors such as seawater intakes of fish factories, the mariculture industry and the lagoons within Lüderitz Harbour.

Based on the baseline as presented in Table 9-4, more turbid conditions were noted at the shallower locations marked as T1, T2 and T4, and reduced turbidity at the deeper location marked T3 (Figure 9-8). This corresponds well with the notion that sediment in shallower water is more likely to be agitated by wind, wave and current action, resulting in increased turbidity. The results provided in Table 9-4 can be used as reference for future dredging exercises.

Increased TSS in the marine environment as a result of dredging may impact on marine organisms by reducing photosynthetic rates and smothering organisms. Turbidity is a quick and easy, albeit indirect, measurement of total suspended matter. To reduce the impact of re-suspended material on natural and cultured marine organisms, the measurement of turbidity is useful for determining when to halt dredging activities. Turbidity probes must be calibrated for local water and substrate conditions and a device specific turbidity to TSS factor must be determined.

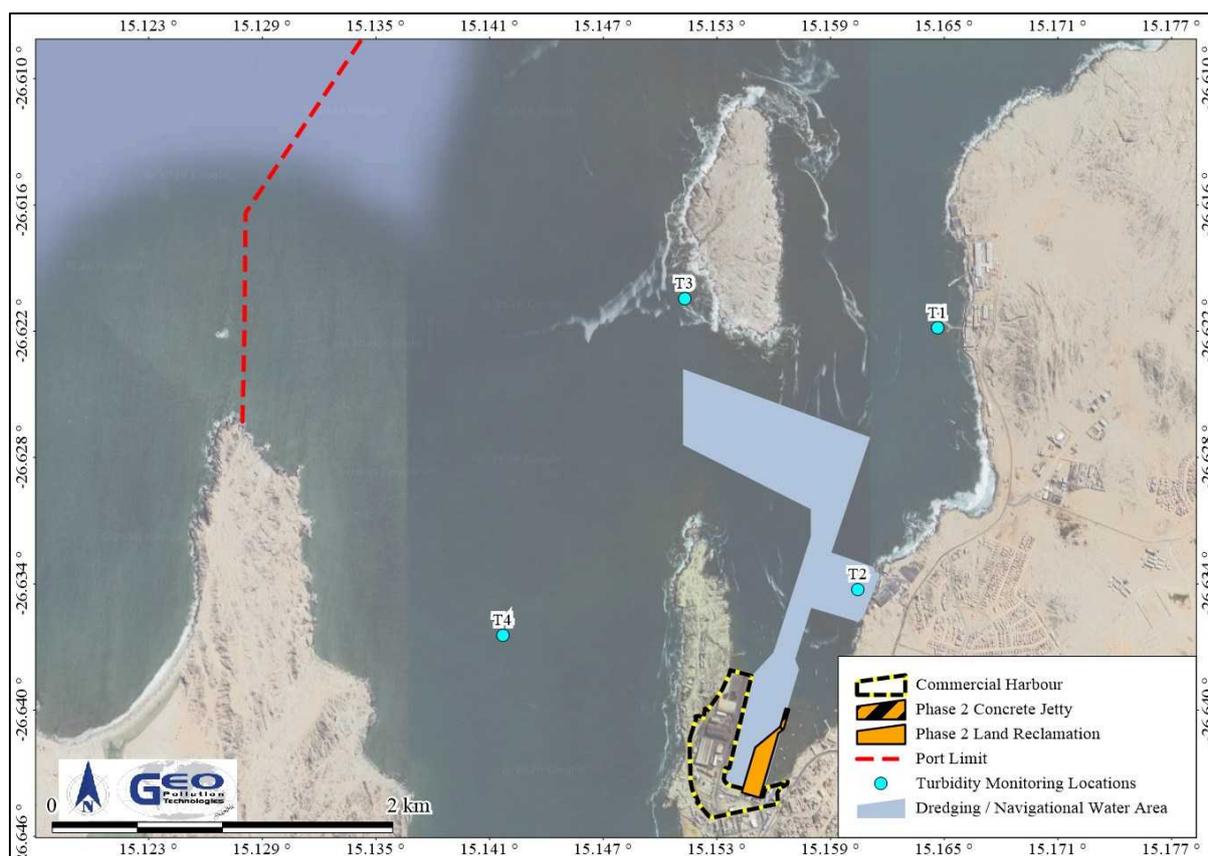


Figure 9-8 Locations for determining baseline turbidity conditions during the 2015 dredging exercise (Botha and Faul, 2015)

Table 9-4 Baseline total suspended solids as reported on during the 2015 dredging baseline conditions determining exercise (Botha and Faul, 2015)

Day*	80 th Percentile (mg/ml)				Average TSS (mg/ml)				Maximum TSS (mg/ml)			
	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
1	13.0	13.2	6.4	11.3	9.9	9.6	4.6	7.8	33.6	39.7	36.5	34.1
2	13.1	15.3	8.2	12.3	9.1	10.9	6.0	9.0	33.3	39.7	36.5	31.8
3	12.2	12.0	7.6	11.8	9.5	8.7	5.5	8.4	33.5	39.3	23.5	38.5
4	15.3	15.4	7.7	14.5	10.8	10.5	6.1	10.2	33.3	38.9	21.4	33.9
5	14.8	17.4	6.6	10.6	9.7	11.4	5.1	8.2	33.6	39.7	35.4	38.5
6	16.0	14.9	5.9	8.6	11.9	10.2	4.1	6.8	33.6	39.7	15.9	38.5
7	16.6	16.6	6.2	11.2	12.8	12.5	4.7	7.7	33.6	39.0	20.7	22.8
8	13.7	19.0	4.8	12.1	9.6	12.0	4.7	8.4	32.0	36.5	36.5	38.5
9	11.1	12.2	6.1	16.7	9.2	9.5	4.4	12.1	26.3	22.7	36.5	30.6

* Number of days after cleaning of the turbidity sensor on the permanently deployed probe

9.2.4 Water quality

Water quality is typically affected by natural and anthropogenic factors. Natural contributors typically relate to sand influx due to wind, sediment transport via rivers and leaching of naturally occurring elements from sediments. Namibian coastal waters for example seem to have naturally higher cadmium concentrations (Faul and Botha, 2015). In ports, water quality can be compromised due to the presence of nearby onshore industrial activities and port operations resulting in the release of contaminants into the ocean (effluent discharge, windblown dust, ship repair, etc.) and spills from vessels (e.g. oil or fuel). Previously, ships were painted with antifouling paints containing harmful chemicals such as tributyltin (TBT).

Although now banned, traces of TBT can still be detected in sediment and thus sometimes also in water samples taken from harbours.

During the 2015 dredging campaign in the Port of Lüderitz, a baseline water quality assessment was conducted prior to the onset of dredging. Six locations strategically located throughout the Lüderitz Bay area was selected (Figure 9-9). The water samples were analysed for more than 200 different elements and compounds including heavy metals, mono aromatic compounds, phenols, polycyclic aromatic hydrocarbons, polychlorinated biphenyls and pesticides. A summary of the results of only those elements measurable in the water samples is presented in Table 9-5. Based on the results the water quality in the Port of Lüderitz can be regarded as relatively good. However, long term water quality monitoring data is not available to confirm this.

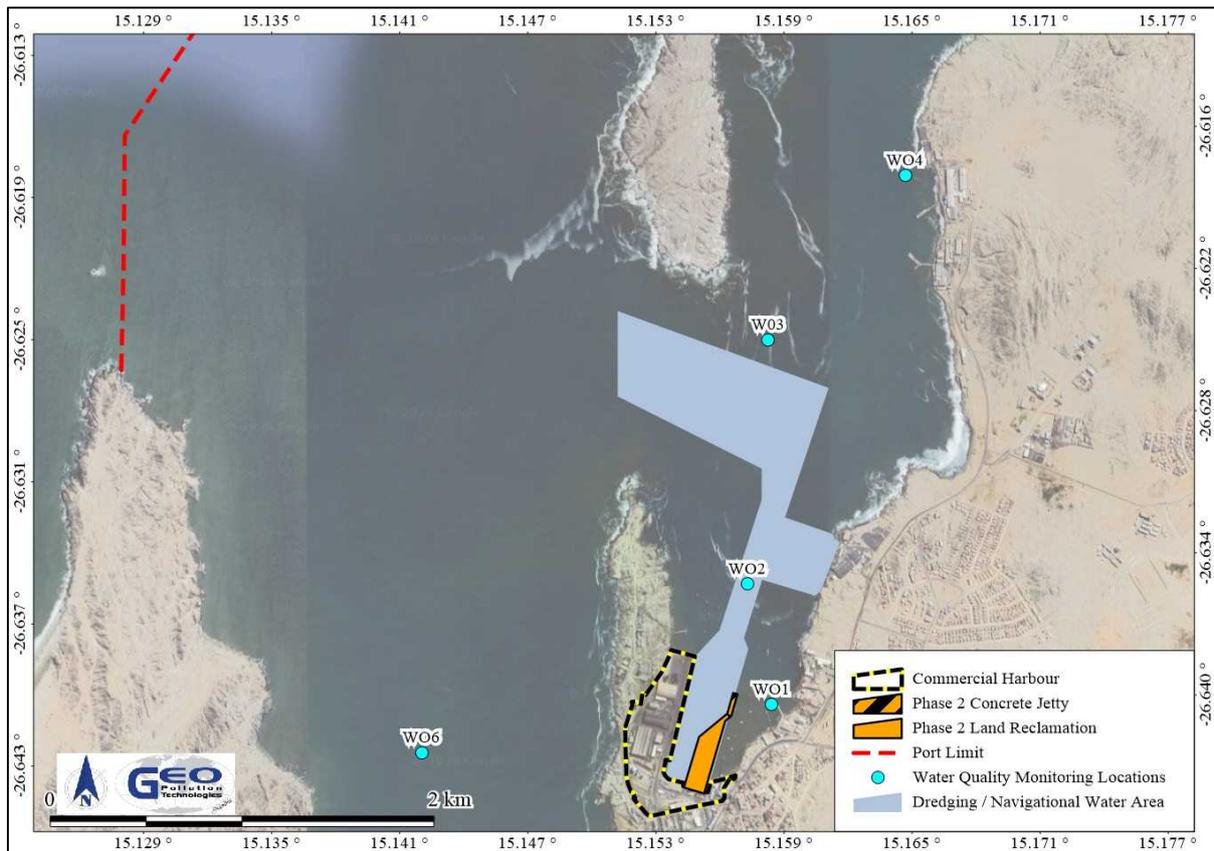


Figure 9-9 Water sampling locations for the 2015 dredging campaign (Botha and Faul 2015)

Table 9-5 Water quality baseline as determined prior to the 2015 dredging campaign (Botha and Faul, 2015)

Luderitz Port Maintenance Project - Water Baseline Sampling								
Your project number	G139-19							
Certificate number	2015124081/1							
Certificate number	2015124074/1							
Start date	06-11-2015							
Report date	17/11/2015							
Date sampling	28-10-2015							
Sampler	A. Faul/ I.White							
Map Number			1	2	3	4	5	6
Analysis	Unit	BCLME Water (Recommended Guideline Value)						
TerrAttes T								
Version number			7.23	7.23	7.23	7.23	7.23	7.23
Characteristics								
EC-temp. corr. factor (mathematical)			1.089	1.086	1.089	1.089	1.096	1.096
Electric conductivity 25 °C	µS/cm		53000	53000	53000	53000	53000	53000
Electric conductivity 25 °C	mS/m		5300	5300	5300	5300	5300	5300
Electric conductivity 20°C	mS/m		4700	4700	4700	4700	4700	4700
Measuring temperature (EC)	°C		20.7	21.2	21.1	21.1	20.8	20.8
Measuring temperature (pH)	°C		20.8	21.6	21.5	21.6	20.9	20.9
pH			7.4	7.5	7.5	7.4	7.4	7.4
Metals								
Arsenic (As)	ppm	No Value		0.0031	0.0033		0.0031	0.0033
Barium (Ba)	ppm	No Value	0.0071	0.0058	0.0059	0.0055	0.0072	0.0073
Mercury (Hg)	ppm	0.0004	0.00063				0.00037	0.0004
Molybdenum (Mo)	ppm	No Value	0.0012	0.001	0.0011	0.001	0.0011	0.0011
Vanadium (V)	ppm	0.1		0.0022	0.0022	0.0022		
Zinc (Zn)	ppm	0.015	0.016					0.037
Volatile Organic Hydrocarbons								
Toluene	ppm	0.18		0.00019		0.00036	0.00022	
o-Xylene	ppm	No Value				0.00014		
m,p-Xylene	ppm	No Value				0.00028	0.00018	
Xylenes (sum)	ppm	No Value				0.00042		
Ethylbenzene	ppm	0.005					0.00011	
Total Petroleum Hydrocarbons								
TPH (C12-C16)	ppm	No Value						0.0019
TPH (C16-C21)	ppm	No Value					0.016	
Volatile halogenated Hydrocarbons								
1,1-Dichloroethene	ppm	No Value		0.00012				
Miscellaneous Organic compounds								
Biphenyl	ppm	No Value		0.0002		0.0004		
Polycyclic Aromatic								
Chrysene	ppm	No Value			0.0003	0.0002		
Notes:								
Only parameters detected are reported on								
Not Detected / No Guideline Value								
< BCLME Water (Recommended Guideline Value)								
> BCLME Water (Recommended Guideline Value)								

The re-suspension of sediments can change the water quality. The analysis of water samples before, during and after dredging activities confirms the possible impacts that dredging could have on receptors such as mariculture, fisheries and natural ecosystems. The results from analyses can be used to determine whether dredging should continue or halt temporarily so that receptors can experience a reprieve from poor water quality.

9.2.5 Ecology of Lüderitz Bay

The coastal waters of Namibia is characteristic of cool surface waters and high productivity (Sakko, 1998). Although it has relatively low species diversity it has high abundance resulting

from the nutrient rich upwelling systems. It is typically also a dynamic ecosystem with relatively high resilience against impacts, when compared with the more tropical waters of, for example, the east coast of southern Africa.

The Lüderitz Bay seashore is mostly rocky with intertidal rocky shores and submerged reefs. Growth on the sea bottom is characterised by *Gracilaria* spp., a gelatinous red algae (Esterhuizen, 2019). Biological communities found in these habitats are not particularly unique and their presence are mostly determined by the environmental characteristics such as depth, wave action and substrate (Pulfrich, 2010a). Also according to Pulfrich (2010a), Lüderitz Bay is not ecologically unique within the Benguela ecosystem, neither is it particularly pristine. However, it is important to note that the entire Lüderitz Bay area is a proclaimed rock lobster (*Jasus lalandii*) sanctuary and part of the Important Bird Area (IBA) NA017, the Lüderitz Islands IBA (Figure 9-10).

The IBA consist of the four island - Halifax, Penguin, Seal and Flamingo Island, as well as the rocky shoreline of the mainland. The islands support more than 10,000 birds while the rocky shorelines of the mainland support more than 14,000 shorebirds (<https://www.keybiodiversityareas.org>). Historically anthropogenic pressures on many of the bird species have led to a steep decline in their numbers. This was largely as a result of guano harvesting, egg collection and habitat alteration and loss. More recently, the NIMPA was established to, among others, protect threatened seabirds, breeding on the islands, from anthropogenic activity. On the islands most of the birds' numbers are declining despite the islands being protected and off-limits to the general public. Events such as recent outbreaks of Avian Influenza in 2018/19 near Lüderitz and 2021/22 further north, also took an additional toll on the African Penguin's long-term survival (Pers. Comm. Jessica Kemper).

Some important species that are considered endangered, vulnerable or near threatened, and occurring within or near IBA NA017, are presented in Table 9-6 with some notes on their status and threats (<https://www.iucnredlist.org/>). The various shallow bay areas, and specifically Angra Point and the Second Lagoon area of Lüderitz Harbour, are important, specifically for flamingos and waders (Pulfrich, 2010a).

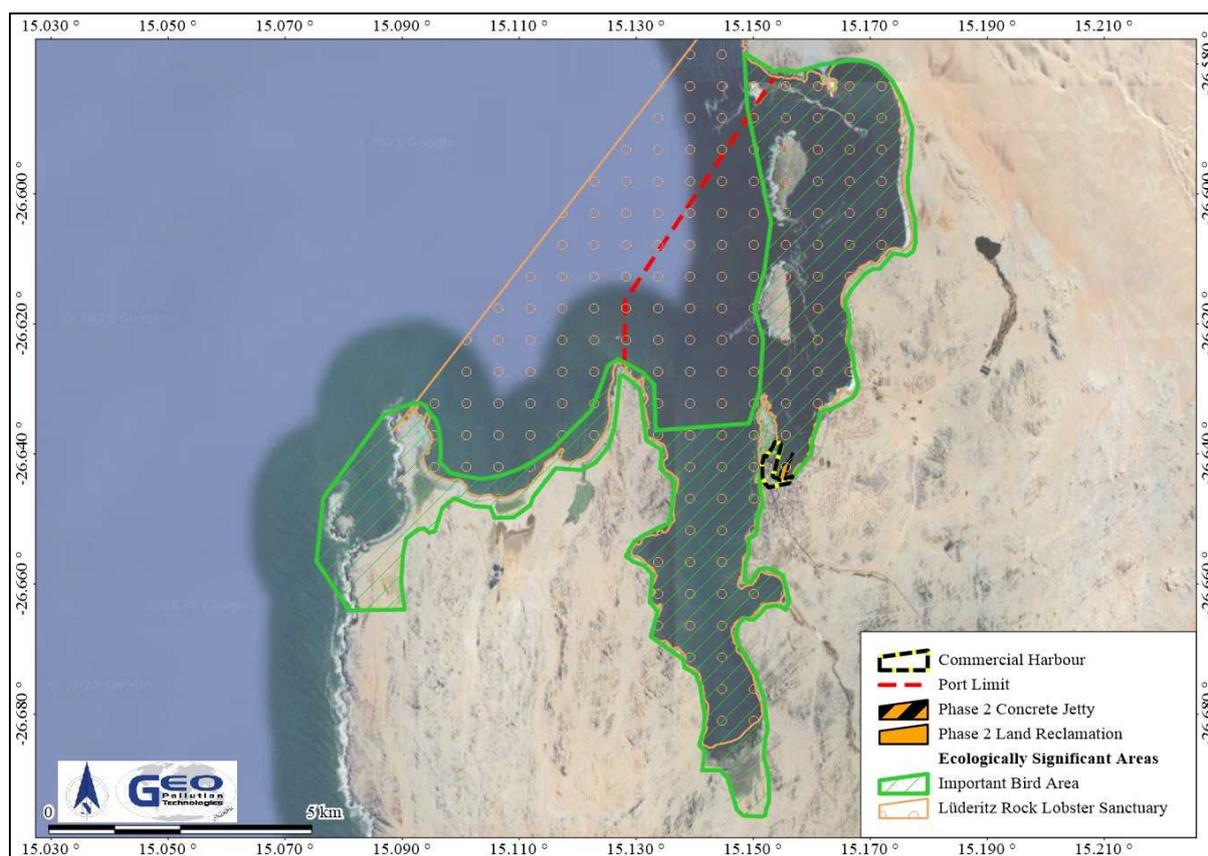


Figure 9-10 Ecologically significant offshore areas at Lüderitz

Table 9-6 Key bird species in IBA NA017 (list not exhaustive)

Common Name (Scientific Name)	Range	Status (Last Assessed)	Comments	Current Threats
African Penguin (<i>Spheniscus demersus</i>)	Endemic to southern Africa (Namibia; South Africa; Angola; Mozambique). Breeding endemic to Namibia and South Africa	Critically Endangered (2024)	Rapid population decline with no sign of reversal	Commercial fishing and shifts in prey populations. Disease.
Bank Cormorant (<i>Phalacrocorax neglectus</i>)	Breeding endemic to Namibia and South Africa	Endangered (2018)	Very rapid decline in small population	Human disturbance, displacement by seals, food shortages and low quality food
Cape Cormorant (<i>Phalacrocorax capensis</i>)	Breeding resident in Namibia	Endangered (2018)	Decreasing population	Human disturbance, pollution, energy production and mining
Damara Tern (<i>Sternula balaenarum</i>)	Regional breeding endemic	Vulnerable until 2021 then Least Concern	Decreasing population	Habitat disturbance and mining

Common Name (Scientific Name)	Range	Status (Last Assessed)	Comments	Current Threats
Curlew Sandpiper (<i>Calidris ferruginea</i>)	Namibian resident with wide global distribution	Vulnerable (2024)	Decreasing population	Habitat loss and degradation, human disturbance
Eurasian Curlew Sandpiper	Non-breeding native to Namibia	Near Threatened (2017)		
Lesser Flamingo (<i>Phoeniconaias minor</i>)	Namibian breeding resident with relatively wide global distribution	Near Threatened (2018)	Decreasing population	Mining, power generation and transmission
Greater Flamingo	Breeding resident in Namibia	Least Concern (2018)	Increasing	Human disturbance, pollution, predation, power lines
Caspian Tern	Breeding resident in Namibia	Least Concern (2018)	Increasing	Human disturbance
African Oystercatcher (<i>Haematopus moquini</i>)	Namibian resident	Near Threatened till 2021, then Least Concern	Increasing population	Human disturbance e.g. off-road driving on beaches
Crowned Cormorant (<i>Microcarbo coronatus</i>)	Breeding endemic to Namibia and South Africa	Near Threatened till 2021, then Least Concern	Small but stable population	Disturbance and marine pollution
Cape Gannet (<i>Morus capensis</i>)	Breeding endemic to Namibia and South Africa	Endangered (2018)	Decreasing population	Food shortage, storms, habitat loss, marine pollution, etc.

Source: The IUCN Red List of Threatened Species (<https://www.iucnredlist.org/>)

Approximately 25 species of cetaceans occur along the Namibian coast. This includes migratory, resident and semi-resident species. Under Namibian law, all whales and dolphins are protected species and may not be harvested. Bottlenose dolphins, Heaviside's dolphins and dusky dolphins occur within Lüderitz Bay. Humpback whales and the Southern Right whale are also encountered in Lüderitz Bay (Pulfrich, 2010a).

Namibia has quite a large population of Cape fur seals. A small colony are present at Diaz Point. Historically, Cape fur seal populations showed significant declines in population numbers due to overharvesting. However, the Namibian population has shown significant increases over the last two decades with new populations of seals establishing all along the coast.

Implications and Impacts

Direct habitat loss within the reclamation footprint is unavoidable, and any dredging or seabed preparation will result in localised disturbance and removal of benthic habitat within the affected areas. However, the affected areas are situated within an operational harbour basin that has already been modified by existing port infrastructure and past dredging activities. As a result, the ecological sensitivity of the immediate footprint is expected to be lower than that of natural coastal habitats,

although temporary effects such as increased turbidity and disturbance to mobile marine species may still occur during construction.

9.3 SOCIO-ECONOMIC ENVIRONMENT

Lüderitz developed in the early 20th century mainly as a result of the diamond mining industry. Today however, the sustaining industries in Lüderitz are fishing, mariculture, mining and tourism. The majority of employment is provided by the fishing industry which mainly exports fisheries products to Europe. A small fleet of demersal trawlers and long-liners operate out of Lüderitz. The fleet primarily catches whitefish, including hake, monkfish and kingklip. A few fish factories are located along the eastern coast from Robert Harbour northwards. Lüderitz Bay itself falls within in a no commercial fishing zone. The commercial rock lobster industry forms an important part of the coastal economy of southern Namibia as Namibia's commercial rock-lobster industry is centred in Lüderitz.

Mariculture of abalone and oysters are also actively pursued in Lüderitz. Oysters are cultured in baskets on long lines within Lüderitz Harbour while abalone is either ranched in the vicinity of Penguin and Seal Islands as well as in land-based facilities. Recent developments also include the culturing of kelp for export purposes.

Diamond mining used to be a major part of the mining industry with zinc mining being the other major component. Their contribution to the local economy have however significantly diminished in recent years. The local community's expectation now is that offshore oil and gas development and onshore green energy technologies will bring much needed employment and economic input in the town and region.

Tourism plays an important part in the local economy, unfortunately a very small percentage of tourists visiting Namibia also visits Lüderitz. This is because Lüderitz is essentially located in a cul-de-sac with tourists having to drive hundreds of kilometres to mainly be able to visit Lüderitz, and then drive the same route back. Cruise liners do make periodic stops in Lüderitz, boosting the local tourism industry mainly through passengers taking short guided excursions in the area. Main attractions are Kolmanskop, Diaz Point, historic buildings of the town and guided trips by concession holders into the Tsau //Khaeb (Sperrgebiet) National Park. A new maritime museum also recently opened, the largest of its kind in Africa.

Most basic services and products are provided by a small business sector within Lüderitz. A number of guesthouses, hotels and self-catering units are present with a limited number of restaurants in town. The Lüderitz waterfront development aims to be a key tourism attraction and a site from which sightseeing tours in Lüderitz Bay are launched.

Between 2001 to 2011, the Lüderitz Constituency (now !Nami#Nûs) and Lüderitz had a declining population trend (from 14,542 to 13,859 for the constituency). By 2023 the population has however increased to 17,243 (Namibia Statistics Agency, 2011; Namibia Statistics Agency, 2024). The remoteness of Lüderitz and the lack of employment and economic diversification opportunities possibly contributed to the earlier decline, while new economic drivers in the form of oil and gas exploration, green energy and increased port exports of metal ores from South Africa have led to the recent increase.

In 2011, Lüderitz had an unemployment rate of 28.2% which was slightly lower than the rate of 32.2% of the ||Kharas Region (Namibia Statistics Agency, 2011). Census data of 2023 shows unemployment in the !Nami#Nûs Constituency decreased to 24.8% compared to 29.7% for the ||Kharas Region and 36.9% for Namibia.

Table 9-7. Demographic characteristics of !Nami#Nûs Constituency, the //Kharas Region and Nationally (Namibia Statistics Agency, 2024)

	!Nami#Nûs Constituency	//Kharas Region	Namibia
Population (Males)	7,831	55,670	1,474,224
Population (Females)	8,294	54,223	1,548,177
Population (Total)	16,125	109,893	3,022,401
Population Density (persons/km ²)	59.7	0.7	3.7
Unemployment Rate (%)	24.8	29.7	36.9

Implications and Impacts

The Port of Lüderitz directly and indirectly sustains a significant portion of the employment opportunities in the town. It is also responsible for opportunities for investment and economic diversification of the town.

The Port of Lüderitz's continued operations have a positive economic impact on the town, the region and Namibia as a whole. Services provided for port operations, and the proposed expansion, will result in an economic injection in the town, but may also contribute to an increase in social ills in the area. Mariculture areas are probable receptors of potentially lower quality seawater caused by construction activities. The filter feeding mussels and oysters, and the sensitive abalone could be adversely affected by, for example, heavy metals and other pollutants that are re-suspended and dissolved in the water column during dredging and carried towards the mariculture areas by currents.

9.4 CULTURAL, HERITAGE AND ARCHAEOLOGICAL ASPECTS

Lüderitz has a rich history related to the discovery of diamonds, but also one of colonial trauma and genocidal legacy. In 1487, Bartholomew Dias, a Portuguese explorer landed at what is now known as Dias Point. It marks the first European contact with the Namibian coast, though no settlement was established at the time. The area remained largely uninhabited until the late 19th century, when German merchant Adolf Lüderitz purchased the land from local Nama chiefs, leading to the establishment of the town Lüderitz. By the 1890's, Lüderitz had developed into a key trading port under German South-West Africa, serving as a supply base, to the discovery of diamonds and the subsequent diamond rush in the early 1900's. Lüderitz therefore has some of the oldest buildings in Namibia and it developed around the port area, and thus the historic centre of the town is also situated around the port. A number of buildings have been declared National Monuments in Lüderitz and these include, among others, the Railway Station Building in Bahnhof Street, the German Lutheran Church in Kirch Street, the Deutsche Africa Bank Building and Krabbenhöft und Lampe Building in Bismarck Street.

The wooden jetty to be demolished is approximately 80 years old.



In 1904, shortly before the discovery of the first diamond, Shark Island, which at that stage were still surrounded by the ocean and only connected with the mainland by a wooden bridge was turned into a concentration camp. Here the Germans imprisoned Nama and Ovaherero rebels and slaves. They had to live here in the extremely harsh conditions of Lüderitz, with the bare minimum as shelter. Based on written and photographic records and the information shared by survivors of the concentration camp, they were not only used to work as slaves, but were tortured, starved, raped and murdered, while the skulls of those who died were sent back to Germany to be studied. Diseases raged through the camp, worsened by malnutrition and extreme physical labour, leading to many more deaths. The bodies of those who died were either thrown into the ocean, buried in shallow graves on the island, close to the shoreline, or buried on the outskirts of Lüderitz, such as at Radford Bay. Those buried on Shark Island were quickly exposed by wave action and washed away. The Shark Island concentration camp was finally closed in 1908 and the prisoners moved to a new, less exposed, site outside Lüderitz.

Today, very little physical evidence of the tragic history of Shark Island remains. Some areas were backfilled and the area developed as a camping and recreational site. However, in 2019 Shark Island was declared a heritage site and in 2025 it was placed under custody of the NHC. Although the port expansion project is completely offshore from Shark Island, a terrestrial archaeology study, focusing on the eastern shoreline closest to proposed reclamation area, was conducted by Dr. John Kinahan. The report is briefly discussed in section 9.4.1. A maritime and underwater cultural heritage (MUCH) assessment was also commissioned. This study focused on the offshore environment where the Phase 1 port expansion is planned. The report is briefly discussed in section 9.4.2.

The discovery of the first diamond in 1908 led to the diamond rush and further development of the Lüderitz, and specifically Kolmanskop, a thriving diamond town and headquarters of Consolidated Diamond Mines of South West Africa Ltd. By the late 1930's, larger diamonds were discovered at the mouth of the Orange River, and the demise of Kolmanskop started. It continued as a transport depot with the last people leaving in the mid 1960's. Today it is one of Namibia's most popular and iconic tourist attractions and arguably the main attraction and only reason why many tourists includes Lüderitz in their itinerary.

9.4.1 Terrestrial Archaeology

The following is a summary of the terrestrial archaeology study conducted on Shark Island in 2024 (Kinahan, 2024) which was undertaken to inform the Phase 1 port expansion. The field survey focused on the eastern shoreline of the island and identified seven significant archaeological sites. Six of these sites appear to relate to the Shark Island concentration camp and represent the only visible physical remains surviving the extensive landscaping of the area for later uses. The study notes that additional remains may be preserved below the landscaped surface and would only be detected through geophysical investigation and/or excavation. The archaeological sites found, together with two monuments, are presented in Figure 9-11 together with significance and vulnerability to the threat of development. Details on each find is summarised in Table 9-8. For Phase 2, the development footprint is spatially removed from the areas described above, and the Phase 2 works are therefore not expected to result in direct impacts to the terrestrial heritage resources identified in the 2024 Shark Island survey.

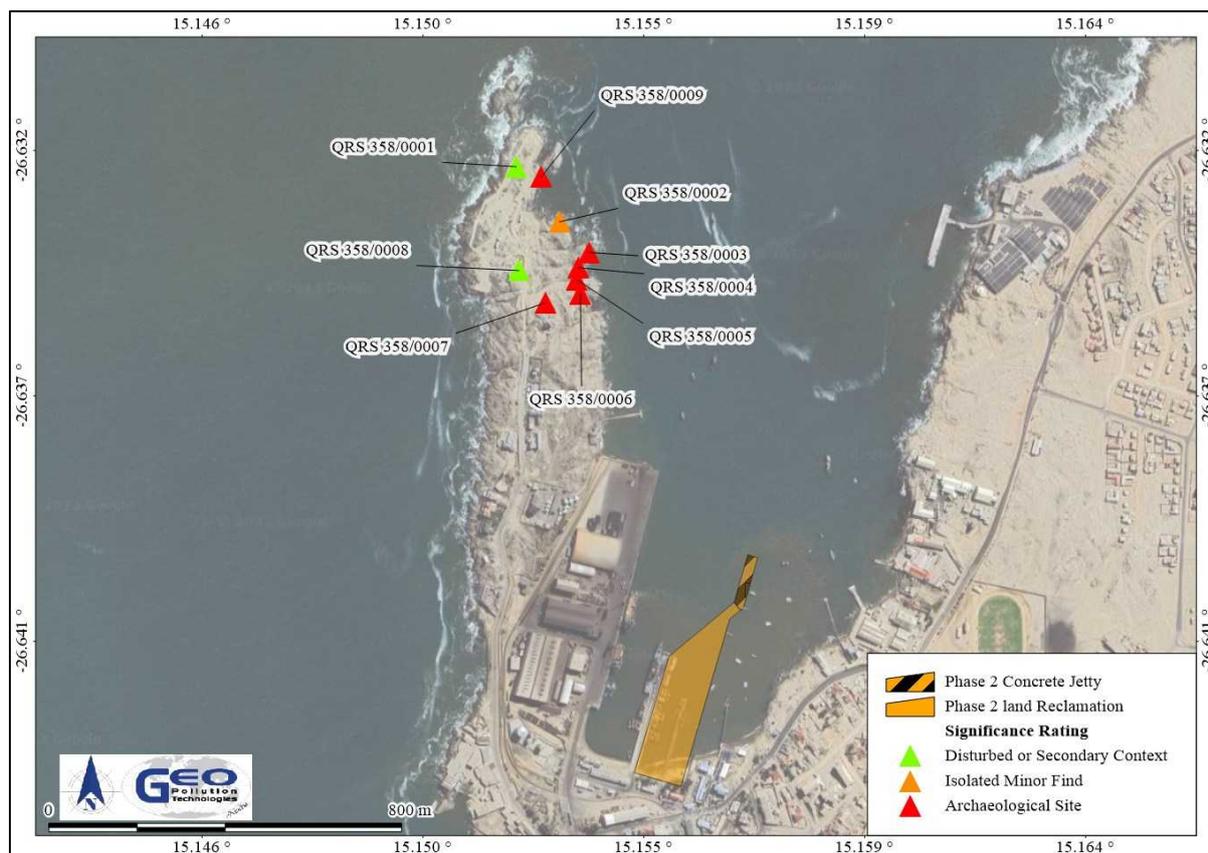


Figure 9-11 Terrestrial archaeology sites located on the archaeological survey of 2024 (Kinahan, 2024)

Table 9-8 Terrestrial archaeology site details for the archaeological survey of 2024 (see Figure 9-11) (Kinahan, 2024)

ID	Description	Significance
QRS-358/0001	Recently erected monument that has toppled over.	1
QRS-358/0002	Sherds of 19th century green bottle glass probably associated with the Shark Island concentration camp.	2
QRS-358/0003	Small 1 × 2 m shell midden mainly <i>Patella argonvillei</i> and <i>P. granularis</i> , associated with clear and green 19 th century bottle glass sherds as well as fragments of rusted iron and charcoal, probably associated with the Shark Island concentration camp.	3
QRS-358/0004	Green, purple and clear 19th century bottle glass sherds retouched as small implements probably associated with the Shark Island concentration camp. These are associated with three typical “robin’s egg” blue glass beads dated to approximately 1904 on sites in the !Khuseb Delta.	3
QRS-358/0005	Iron stanchion with “X” section set into rock and with iron shackle probably from horse saddlery attached to short length of heavy barbed wire, probably associated with the Shark Island concentration camp.	3
QRS-358/0006	19 th century earthenware and glass sherds with small scatter <i>Patella argonvillei</i> and probably associated with the Shark Island concentration camp.	3
QRS-358/0007	Dense, highly fragmented shell midden approx. 5 × 10m. Probably predates the concentration camp	3

ID	Description	Significance
QRS-358/0009	Monuments to the Fredericks clan, Vogelsang and reburied human remains from the old Nautilus cemetery.	1
QRS-358/0009	Small shell midden mainly fragmented <i>Patella</i> spp with 19 th century bottle glass probably associated with the Shark Island concentration camp.	3

9.4.2 Maritime and Underwater Cultural Heritage

The following is a summary of the MUCH assessment (Maitland, 2025) which was undertaken to support the Phase 1 port expansion and associated marine works. The MUCH assessment used a combination of desktop studies, a magnetometer survey, and diver searches. The desktop review indicated that nine shipwrecks of low to medium significance may occur in the broader vicinity of the Phase 1 expansion area; however, their locations are unknown and the likelihood of their presence within the assessed footprint was considered low. Two modern shipwrecks of no heritage significance were recorded within the Phase 1 expansion zone (the Christiaan de Wet, wrecked in 2011, and an unidentified vessel wrecked in 2022).

The magnetometer survey identified three sites requiring investigation. These sites were inspected during diver searches, and no material of archaeological significance was found. The diver searches mainly recorded modern debris and waste, such as glass bottles and tyres, and one metal object that may relate to the 2022 unidentified shipwreck. The assessment also notes that objects may be covered by silt, and that shallow nearshore areas could not be fully investigated, meaning that isolated items of potential significance could remain undetected in certain sheltered inlets or between rocky outcrops. The likelihood of human remains being present after more than a century was considered extremely small.

For Phase 2, the footprint is located away from the Phase 1 nearshore focus areas described in the MUCH assessment, and the likelihood of encountering underwater heritage resources within the Phase 2 works area is considered low, based on the existing information

Implications and Impacts

Port expansion will take place within the existing Port of Lüderitz footprint and will largely be confined to previously modified harbour areas. Construction is therefore not expected to directly affect known cultural, heritage or archaeological resources on land, including historically significant buildings within Lüderitz town. The likelihood of encountering significant heritage material within harbour sediments is considered low, given the historical disturbance and ongoing operational nature of the area. The wooden jetty to be demolished is however older than 50 years and will require permission from the NHC to be demolished.

10 PUBLIC CONSULTATION

Consultation with the public forms an integral component of an environmental assessment investigation and enables I&APs, for example neighbouring landowners, local authorities, environmental groups, civic associations and communities, to comment on the potential environmental impacts associated with a project and to identify additional issues which they feel should be addressed during the environmental assessment process.

The public participation process was undertaken collectively for Phase 1 and Phase 2 of the port expansion. This entailed:

- ◆ Compilation of a stakeholder database.
- ◆ Compilation of a background information document, press notice, notification letters, and site notice.
- ◆ Environmental assessment announcements in two nationally distributed newspapers, once a week for two consecutive weeks (The Namibian and Republikein on 18 and 25 August 2025).
- ◆ Hand delivery of notification letters to the executive directors' offices of key ministries.
- ◆ E-mail and multimedia messages with notification letters to identified stakeholders.

- ◆ A site notice was placed at the entrance to the Lüderitz port.

Through this process, IAPs were invited to register with Geo Pollution Technologies in order to be included in the public participation process, to comment on the project, and ultimately to review and comment on the EIA, EMP and specialist reports.

Due to the nature and location of the Phase 1 and Phase 2 projects, three public meetings were scheduled in Lüderitz (3 and 4 October 2025), even though public meetings are not a requirement of the EMA for an environmental assessment process (Photo 10-1 and Photo 10-2). The agenda of the three meetings were the same, but were scheduled as three separate meetings to allow for flexibility in attendance and cater for those who had to travel. Through the public meetings and subsequent IAP correspondence, no concerns were raised specifically regarding Phase 2 of the port expansion. All IAPs who registered for Phase 1 were automatically also registered for Phase 2.

Proof of notifications, the stakeholder database, registered IAPs, minutes of meetings, and a comments and responses table are included in Appendix A and Appendix B. No comments were received from IAPs after the public review period of the EIA and EMP was completed.



Photo 10-1 Public meeting



Photo 10-2 !Aman Traditional Authority attendees at public meeting

Prior to the commencement of the current environmental assessment process, the operational EMP of the Port of Lüderitz was amended to renew the port's ECC. The proposed port expansion project was initially included in this process, but the need for a stand-alone environmental process was quickly ascertained. All environmental assessment work related to the expansion project was thus halted, until the current process was initiated in 2024. To avoid duplication, communication between GPT and I&APs during the EMP amendment process is not included in Appendix B, but is available upon request.

11 ASSESSMENT AND MANAGEMENT OF IMPACTS

The purpose of this section is to identify, describe and assess environmental impacts that are expected from a project.

For each impact, an environmental classification is 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 11-1).

Ranking formulas are then calculated as follow:

$$\text{Environmental Classification} = A1 \times A2 \times (B1 + B2 + B3)$$

The environmental classification of impacts is provided in Table 11-2.

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 11-1 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 11-2 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

Preventative and mitigatory measures are also provided for impacts and an EMP based on these identified impacts are produced. The EMP provides management options to ensure impacts of the proposed project are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit corrective measures needed, although additional mitigation measures may require implementation for some impacts.

The impacts, descriptions and environmental management measures are provided in the tables and descriptions below. The management measures should be adhered to during the various phases of construction. Ultimately the operations of the new expanded port will be incorporated into the existing operational EMP of the Port of Lüderitz.

This section of the report can act as a stand-alone document. All contractors and personnel taking part in the construction of the expanded port should be made aware of the contents of this section, so as to plan the construction process accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- ◆ to include all components of construction and related activities;
- ◆ to prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- ◆ to monitor and audit the performance of contractors and personnel in applying such controls; and
- ◆ to ensure that appropriate environmental training is provided to responsible contractors and personnel.

Various potential and definite impacts will emanate from the project. 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 are expected to mostly be of medium-high significance and can mostly be mitigated to have a medium to low significance. The spatial extent of impacts are mostly limited to the proposed port expansion area and the immediate surroundings. Some impacts are of a permanent nature. Due to the nature of the surrounding areas, some cumulative impacts are possible.

11.1 ENVIRONMENTAL MANAGEMENT PLAN

11.1.1 Planning

During the planning phase it is the responsibility of the Proponent to ensure they, and all contractors, sub-contractors, consultants and other personnel who will be involved with the construction of the new port area comply with all legal and industry specific requirements. Management measures must be put in place prior to, and during construction, to ensure

potential environmental impacts and risks are minimised. The following actions are recommended during the planning phase and should continue for the duration of the project:

Namport

- ◆ Ensure that all necessary permits from the various ministries, local authorities and any other bodies that govern or authorise port construction are in place and remains valid.
- ◆ Ensure that reputable contractors and sub-contractors are appointed and enter into an agreement, which includes adherence to the EMP, with Namport.
- ◆ Assign a Health, Safety and Environmental Coordinator to oversee implementation of and compliance to the EMP, by all responsible parties.
- ◆ Appoint a community liaison officer who can receive and deal with complaints and suggestions and share the contact details with the community.
- ◆ Communicate Namport's various emergency response procedures and operational procedures which are relevant to construction, to the relevant contractors involved in the port expansion project.
- ◆ For any dredging, comply with the existing EIA and EMP for dredging of the Port of Lüderitz.
- ◆ Ensure sufficient insurance cover is available for aspects of environmental damage, pollution clean-up or restoration, if ever needed.
- ◆ Establish and maintain a reporting system to report on aspects of construction as outlined in the EMP in accordance with ECC conditions.
- ◆ Update the EIA and EMP if required and apply for renewal of the environmental clearance certificate prior to expiry.

Contractor

- ◆ Enter into an agreement with Namport which includes the EMP and environmental compliance, monitoring and reporting as required by Namport and the ECC.
- ◆ Where applicable, ensure that all requirements of the Ministry of Home Affairs, Immigration, Safety and Security are met with respect to work permits and entry into Namibia.
- ◆ Where relevant, include the EMP as part of all contracts for the procurement of services.
- ◆ Assign a Health, Safety and Environmental Coordinator to oversee the implementation of, and compliance to the EMP.
- ◆ Obtain and implement all Namport's emergency response and operational procedures.
- ◆ Ensure sufficient insurance cover is available for aspects of environmental damage, pollution clean-up or restoration, if ever needed.
- ◆ Establish and maintain a reporting system to report on aspects of construction as outlined in the ECC and as in agreement with Namport.

11.1.2 Employment

The construction of the expanded port will require various contractors, sub-contractors, building materials, equipment and infrastructure. Employment within goods and services suppliers' businesses will thus be sustained and new job opportunities may be created. Once operational, the new expanded port will require Namport to appoint new employees to be able to manage the larger footprint. However, more importantly, the additional space will be available to various new port tenants who will through both construction of for example new warehouses, and operations of those warehouse, sustain and create employment.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Sustaining or creating employment opportunities by appointing a contractor(s) and through support services offered to the contractor(s).	3	2	2	2	2	36	4	Definite
Operations	Enlarged Namport employee base. New businesses operating in the port requiring a new employee base.	3	2	3	2	2	42	4	Definite
Indirect Impacts	Port services sustain the majority of business relying on imports and exports of goods. Port operations will thus indirectly sustain and create new employment within those business.	4	3	3	2	3	96	5	Definite

Desired outcome: Provision of employment to local Namibians and adhering to Namibian legal requirements with respect to work permits.

Actions:

Enhancement:

- ◆ If the skills exist locally, contractors and employees must first be sourced from the town, then the region and then nationally. Deviations from this practise must be justified.
- ◆ Work permits for foreign employees and contractors.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Immigration Control Act 7 of 1993.
- ◆ Work permits and employee contracts on file.
- ◆ Bi-annual reporting based on employee records that provides details on number of employees and demographic profile such as male vs. female, local vs. foreign, and disabled employees).

11.1.3 Revenue Generation

During construction, contractors, resources and services will be procured locally where available and feasible, contributing to the economy of the town, region and Namibia. Through the efficient functioning of the expanded Port of Lüderitz, additional businesses will establish in the port, also contributing to revenue generation. Payment of employees' salaries and wages contribute to the overall economy of the town, region, Namibia and SADC countries exporting and importing goods via Lüderitz.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Local procurement of resources and support services by the resulting in revenue generation.	3	2	2	2	2	36	3	Definite
Operations	Additional employment and port operations continuously require resources and services resulting in revenue generation.	3	2	3	2	2	42	3	Definite
Indirect Impacts	Port services sustain the majority of business relying on imports and exports of goods. Port operations will thus indirectly result in the livelihoods of employees of such businesses.	4	3	3	2	3	96	5	Definite

Desired outcome: Revenue generation and contribution to the local, regional, Namibian and SADC economy.

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.
- ◆ Resources and services must be procured locally, if available. Deviations from this must be justified.
- ◆ Payment of taxes and remuneration in accordance with Namibian legislation.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Where requested, proof must be provided to show that goods and services are procured locally, and if this is not the case, justification for foreign acquisition of such goods and services must be provided.
- ◆ Bi-annual reporting based on employee records that provides details on number of employees and demographic profile such as male vs. female, local vs. foreign, and disabled employees).

11.1.4 Skills, Technology and Development

Through employment and contracting of local companies and employees for certain aspects of construction, some skills will be transferred to an unskilled workforce and technologies that are new to Namibia may be introduced. Development of people and technology are key to economic development.

Overall operations of the Port of Lüderitz may promote the port as a reliable location to conduct port related business ventures. This may further stimulate technological development in the port with associated benefits of training of employees and acquiring of new skills.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Technological development and transfer of skills to the local population	2	1	2	2	1	10	2	Probable
Operations	Growth in port services and operations and associated technological development and transfer of skills	3	2	3	2	2	42	4	Probable

Desired outcome: To see an increase in skills of local Namibians, as well as development and technology advancements in the port.

Actions:

Enhancement:

- ◆ If the skills exist locally, contractors and employees 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.
- ◆ Training and skills development must be focussed on Namibians.
- ◆ Employees to be informed about parameters and requirements for references upon employment.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Record should be kept of all training or development programmes provided to Namibians.
- ◆ Ensure that all training is certified or managerial references provided (proof provided to the employees) inclusive of training attendance, completion and implementation.
- ◆ Bi-annual reporting summarising any training or skills development programmes provided to Namibians.

11.1.5 Demographic Profile and Community Health

Impacts related to the demographic profile and community health relate to the influx of people (foreigners and Namibians) to the town, and the potential social ills and deviant behaviour that often accompany such events. This includes the spread of communicable diseases such as HIV/AIDS and increased criminal activities. Additional employment opportunities also mean more spending power which can lead to increased misuse of alcohol and drugs.

For the duration of construction there will be an influx of foreign people in Lüderitz. Contractors, employees or consultants may be sourced in Namibia and may require temporary accommodation and offices in town. Due to the scale and duration of construction it is not foreseen that the influx of people will create a significant or permanent change in the demographic profile of the local community, but may result in instances of socially deviant behaviour.

The prospects of more operators in the port may entice jobseekers to migrate to the town. The probability of negative impacts occurring, as discussed above, thus increases. More pressure will be placed on goods and services supply and housing. This is further aggravated by the remoteness of Lüderitz from

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
		Before Mitigation/Prevention							
Construction	Social ills and deviant behaviour resulting from the temporary presence of foreign contractors	2	-2	2	2	2	-24	-3	Probable
Operations	Social ills and deviant behaviour resulting from an influx of jobseekers into the town and related unemployment	2	-3	3	2	2	-42	-4	Probable
After Mitigation/Prevention									
Construction	Social ills and deviant behaviour resulting from the temporary presence of foreign contractors	2	-1	2	2	2	-12	-2	Probable
Operations	Social ills and deviant behaviour resulting from an influx of jobseekers into the town and related unemployment	2	-2	3	2	2	-28	-3	Probable

Desired Outcome: To prevent growth in informal settlements and an increase in social ills, the spread of communicable diseases, and prevent / discourage socially deviant behaviour and criminal activities.

Actions:

Enhancement

- ◆ Timely information sharing with local, regional and national authorities as well as the suppliers of services to ensure timely development of the town and services to meet growing demands.
- ◆ As far as is practically possible, Namibian contractors and support services must be sourced from the town, region or nationally (if available). Deviations from this practice should be justified appropriately.

- ◆ Appoint reputable contractors with a proven track record of social responsibility.
- ◆ Maintain a comprehensive employee wellness program, ensuring that relevant support are provided to employees with information sessions on aspects such as dangers and prevention of communicable diseases such as HIV/AIDS, alcohol and drug abuse, and sound financial planning.
- ◆ No intoxicating substances, or persons under the influence of such substances, may be allowed in the port and construction areas.
- ◆ Adhere to all applicable laws and regulations relating to public and environmental health (e.g. sanitation requirements, work conditions, etc.).
- ◆ Disciplinary steps, within the legal parameters of Namibia, to be taken for socially deviant behaviour during working hours, should be clearly stipulated in employment contracts.

Mitigation

- ◆ Take disciplinary action against employees not adhering to contractual agreements with regard to socially deviant behaviour (e.g. alcohol or drug abuse during working hours).

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Bi-annual reporting summarising employee demographics, educational programmes provided, information session attendance and training conducted.

11.1.6 Health, Safety and Security

Construction and operations rely on human labour who are exposed to health and safety risks. Working at heights and in confined spaces, diving, handling of hazardous chemicals, working with machinery all pose risks.

During operations, working with machinery, unsafe stacking, falling from heights and handling of hazardous chemicals (inhalation of dust and potential health effects chemicals), poses risks to employees. If not contained, windblown dust may further pose health risk to nearby receptors.

The Namibian coast is characterised by very cold water and rough conditions. Falling in the water and being exposed to cold water, will quickly result in hypothermia which may rapidly become fatal.

Security risks are related to unauthorized entry, theft and sabotage.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	Physical injuries, chemical exposure, hypothermia or drowning, etc.	1	-3	3	3	1	-21	-3	Probable
Operations	Physical injuries, exposure to chemicals, dust and emissions, and criminal activities.	2	-2	3	3	1	-28	-3	Highly Probable
After Mitigation/Prevention									
Construction	Physical injuries, chemical exposure, hypothermia or drowning, etc.	1	-3	3	3	1	-21	-3	Improbable
Operations	Physical injuries, exposure to chemicals, dust and emissions, and criminal activities.	2	-2	3	3	1	-28	-3	Probable

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, material safety data sheets (MSDS) and signage requirements (personal protective equipment (PPE), flammable etc.).
- ◆ Appointment of reputable contractors with a known history of responsible and safe construction practices.
- ◆ All Health and Safety standards specified in the Labour Act, or better, should be followed.
- ◆ Clearly label dangerous and restricted areas as well as dangerous equipment and products. This includes strict security to prevent unauthorised entry.
- ◆ Provide all employees with required and adequate PPE.
- ◆ Ensure that all personnel receive adequate training on operations of equipment / handling of harmful materials.

- ◆ Equipment on site must be stored in a way that does not encourage criminal activities (e.g. locked away to prevent theft).
- ◆ Security procedures and proper security measures must be in place to protect workers.
- ◆ Dredging, if any, to adhere to the approved dredging EMP of the Port of Lüderitz.

Mitigation

- ◆ Selected personnel should be trained in first aid and a first aid kit must be available on site. The contact details of all emergency services must be readily available.
- ◆ Implement emergency response procedures in case of incidents.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Industry standards and protocols, etc.
- ◆ An up-to-date health and safety file to be maintained.
- ◆ Any incidents or complaints 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, incidents or complaints received, including action taken to prevent future occurrences, must be included.

11.1.7 Traffic

Construction activities will increase traffic through the town to deliver constructing material, equipment, infrastructure, as well as filling material for land reclamation (if sourced from land). Should the latter be required, it will result in a significant temporary increase in traffic. Routes through town and into the port are limited and all traffic ultimately pass via Bismarck Street in the business area of town. This increases the likelihood of traffic delays, traffic incidents and road surface damage.

Future operations of the new port area will increase traffic on the roads through town, to and from the port. Heavy motor vehicles may result in an increased, cumulative impact on the road surface of the area, especially when turning on these roads. Trucks parking in town may block business' entrances and increase the likelihood of accidents and incidents.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	Traffic congestion, accidents, and road wear and tear.	2	-3	2	2	3	-42	-4	Highly Probable
Operations	Traffic congestion, accidents, and road wear and tear.	3	-2	3	3	2	-48	-4	Highly Probable
After Mitigation/Prevention									
Construction	Traffic congestion, accidents, and road wear and tear.	2	-2	2	2	3	-28	-3	Highly Probable
Operations	Traffic congestion, accidents, and road wear and tear.	3	-1	3	3	2	-24	-3	Highly Probable

Desired Outcome: Minimum impact on traffic, no transport or traffic related incidents, good quality roads.

Actions

Mitigation

- ◆ Continuous consultation with the Lüderitz Town Council (LTC), Roads Authority and port users to find feasible measures and alternative to alleviate traffic congestion in town (for both construction and operational phases. This could include investigation and implementation of truck staging areas outside town, alternative access roads, bridges, etc.
- ◆ Trucks should not be allowed to park, overnight or obstruct any traffic in areas surrounding the port and the town.
- ◆ Adhere to The Road Traffic and Transport Regulations and all other applicable legislation related to road transport and maximum axle loads.
- ◆ If any traffic impacts are expected, such as during delivery of abnormal loads, traffic management should be performed.
- ◆ The placement of signs to warn and direct traffic or placement of marshals at potentially high incident areas (close too schools, at four way stops, etc.) will aid in mitigation of traffic impacts.

Responsible Body:

- ◆ Proponent
- ◆ Contractor

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.

11.1.8 Seafaring Traffic

Seafaring traffic may experience delays or in extreme instances be involved in collisions or allisions due to the construction of the expanded port area. Delays in ship arrivals or departures at the port can disrupt the timely delivery of goods, interfere with cruise liner schedules, affecting the tourism industry, and lead to a build-up of export-bound cargo within the port. The possibility for such events occurring increases when the proper navigational warnings are not issued, or vessels that are not seaworthy, and without proper communications systems, operate within the area.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	Delays in calling to port and potential collisions and allisions.	2	-2	2	2	1	-10	-2	Probable
After Mitigation/Prevention									
Construction	Delays in calling to port and potential collisions and allisions.	2	-2	2	2	1	-10	-2	Improbable

Desired Outcome: Minimum impact on seafaring traffic and no accidents.

Actions

Prevention

- ◆ Proper communication, management and planning will largely prevent seafaring vessel delays and accidents.
- ◆ Timely issuing of navigational warnings (Namport).
- ◆ Planning and communication with regular provision of construction updates to the Port Captain.
- ◆ All communications, navigational and warning systems on the vessel in working order and regularly tested and maintained.

Mitigation

- ◆ Should an incident occur, it must immediately be reported to the Port Captain, followed by a detailed report within 24 hours, and corrective action should be taken to prevent any future occurrences of such events.

Responsible Body:

- ◆ Proponent
- ◆ Contractor

Data Sources and Monitoring:

- ◆ Part III of the regulations proclaimed under the Namibian Ports Authority Act; Merchant Shipping Act; Marine Traffic Act.; Convention on the International Regulations for Preventing Collisions at Sea; International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
- ◆ Ships' logs to be duly maintained.
- ◆ Any complaints or incident reports received from seafaring traffic, with regard to port construction, should be recorded together with corrective action taken and measures implemented to prevent impacts from repeating itself.
- ◆ Bi-annual reporting on all seafaring traffic related incidents reported, complaints received, and action taken.

11.1.9 Fire and Explosion Risk

Products used during construction, e.g. fuel, solvents, lubricants, etc., may be flammable to varying degrees. Whilst unlikely, these may become explosive under very specific conditions and in confined spaces. Construction activities will also take place near the existing concrete jetty which has fuel lines for bunkering of vessels. The primary causes of such accidents may include human error, technical failures and inadequate maintenance. Dredging also pose fire risks on board the dredging vessel.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	A fire that may lead to an explosion and infrastructure damage, injury or loss of life	2	-2	3	3	1	-28	-3	Probable
Operations	A fire that may lead to an explosion and infrastructure damage, injury or loss of life	2	-2	3	3	2	-32	-3	Probable
After Mitigation/Prevention									
Construction	A fire that may lead to an explosion and infrastructure damage, injury or loss of life	2	-2	3	3	1	-28	-3	Improbable
Operations	A fire that may lead to an explosion and infrastructure damage, injury or loss of life	2	-2	3	3	1	-28	-3	Improbable

Desired Outcome: To prevent injury or physical damage as a result of fire or explosions.

Actions

Prevention

- ◆ A holistic fire protection and prevention plan is needed. This plan must include an emergency response plan, firefighting plan and spill recovery plan, and should include specific substances handled at the site. The plan should consider risks posed to and by neighbouring properties.
- ◆ Appointment of reputable contractors with known histories of responsible and safe construction practices.
- ◆ Share the requirements for firefighting based on the products kept on site with Namport.
- ◆ Ensure all materials are stored strictly according to MSDS instructions. This include segregation of incompatible products.
- ◆ Maintain firefighting equipment, implement good housekeeping and conduct personnel training (firefighting, fire prevention and responsible housekeeping practises).
- ◆ Operations of the dredger must be according to the approved EMP for dredging.

Mitigation

- ◆ Implement the emergency and firefighting plan immediately if a fire is detected.

Responsible Body:

- ◆ Proponent
- ◆ Contractor

Data Sources and Monitoring:

- ◆ Record should be kept of all inspections and maintenance performed on firefighting equipment (date of last service, date of next service, replacement date, etc.).
- ◆ Record should be kept of all training related to firefighting, fire drills and evacuation procedures.
- ◆ Record should be kept of all inspections and maintenance performed on equipment whose failure may result in a fire and/or explosion. This include electrical installations, fuel storage and reticulation, etc.
- ◆ Any incidents must be recorded with action taken to prevent future occurrences.
- ◆ Bi-annual report on all record keeping and incidents, including corrective action taken.

11.1.10 Noise and Vibration

Noise and vibrations are closely linked. The main noise activities that will result from port construction activities are related to the installation of the steel sheet pile, pile driving (if conducted, compaction of fill material, and heavy motor vehicle movement through town. Operational noise will vary depending on the activities of tenants, but will likely constitute vehicle and train noise, audible warning signals, cranes, picking up and putting down skips and containers, vessel engine noise, and closing and opening of doors and hatches. Noise can cause permanent hearing loss if continued exposure to loud noises occur or can be a nuisance to nearby community members such as at residences and accommodation establishments. Whole body vibration is common in vehicle and heavy machinery operators. It can cause lower back pain, motion sickness, bone damage, and digestive issues. Long-term exposure may lead to fatigue, drowsiness, and reduced concentration. Hand-arm vibration affects workers using power tools. It can result in nerve damage, vascular disorders, and musculoskeletal problems.

Not only living organisms are affected by vibrations. Machinery and structures also undergo wear and tear as it leads to accelerated mechanical fatigue and component degradation, loosened joints, cracks, and structural instability.

A noise impact specialist study was commissioned for Phase 1 port expansion (De Jager 2025). Although the assessment and modelling were undertaken for the Phase 1 expansion footprint, the baseline findings, impact pathways, and recommended mitigation measures are applicable to Phase 2 and have been incorporated into this report. Nearby residences and businesses were identified as noise sensitive receptors. Baseline noise levels were determined around the port. Measurements taken during both day and night reflect ambient sound levels characteristic of a low-noise urban environment. However, areas in close proximity to the port exhibited elevated noise levels, primarily due to the continuous operation of cranes and other port-related activities, which were clearly perceptible and acoustically dominant. In contrast, locations farther from the port resembled a typical coastal soundscape, where natural elements such as bird calls, wind, and waves prevailed. Depending on these natural ambient conditions, sounds from the port could be distinctly heard up to 750 metres away.

Conceptual noise models indicate potential noise impacts associated with the project would be: 1) of a high significance for daytime construction activities; 2) of a low significance for daytime operational activities associated with the port operational activities; and 3) of a high significance for night-time activities associated with the port operational activities. The author suggested various mitigating actions which are included below. It was concluded that existing port activities are generally audible at the closest noise sensitive receptors and the proposed expansion will slightly raise these noise levels. The increase is not flagged as a fatal flaw, and the expansion project authorisation from a noise impact perspective is recommended.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	Noise and vibrations causing health impacts and a nuisance	2	-2	2	2	3	-28	-3	Definite
Operations	Noise and vibrations causing health impacts and a nuisance	2	-3	3	2	2	-42	-4	Definite
After Mitigation/Prevention									
Construction	Noise and vibrations causing health impacts and a nuisance	2	-2	2	2	3	-28	-3	Definite

Operations	Noise and vibrations causing health impacts and a nuisance	2	-2	3	2	2	-28	-3	Definite
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Desired Outcome: To ultimately reduce noise and vibration levels in order to prevent hearing loss and other health impacts on workers, side-effects of vibration, a nuisance to nearby receptors, and impacts on animals. Where noise and vibration levels cannot be lowered, the potential impacts thereof must be minimized.

Actions

Mitigation

- ◆ The potential noise levels and construction schedule should be discussed with all noise sensitive receptors staying within 500 m from the construction and future operational site. Measures that will be used to reduce noise levels should be highlighted
- ◆ 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 and not to be a nuisance to communities should be considered during the construction and operational phases.
- ◆ Confine noise generating construction activities to daytime hours.
- ◆ Confine noise generating operational activities to daytime hours as far as possible.
- ◆ Should piles be installed, vibratory pile driving with pre-drilling (coring) is preferred to reduce noise.
- ◆ Shrouds, noise barriers and acoustic enclosures must be used to limit noise.
- ◆ Contractors that use newer, quieter equipment should be appointed. Equipment should be well maintained as per manufacturers requirements, with the engine compartments closed.
- ◆ Induction training should include an environmental noise component, which should be given to all employees and contractors, highlighting the sensitivity of the area to noise. Sources of noise should be highlighted, especially the potential impact of material handling noises.
- ◆ Use white noise alarms (squawkers) instead of tonal reverse alarms on heavy vehicles and fork-lifts operating within the port area and consider changes to policies and guidelines for contractors and port users.
- ◆ Hearing protectors must be issued as part of PPE when working in noisy environments.
- ◆ Mechanisms to reduce vibration impact must be employed. This includes frequently rotating operators and wearing of PPE such as vibration absorbing gloves.
- ◆ Any machinery and vehicles that cause excessive vibrations should be given defect notices and taken off site immediately. Machinery and/or vehicles may only be used again on site once they have been serviced and approval has been granted by the site supervisor.
- ◆ Unnecessary vibrations can be minimised by ensuring that no machinery or vehicles are left idling when not in use.
- ◆ The appropriate and correct placement of specific work activities can ensure the reduction of handling of machinery that cause heavy vibrations. Careful placement of infrastructure and transport routes within the expansion area can optimize the noise-reduction effectiveness of walls and buildings. This could include locating loading and unloading activities to allow buildings to act as noise barriers.
- ◆ Pre assessment to allow for mitigation measures for any elevated levels of vibrations should take place if there is any suspicion that there may be excessive vibrations levels onsite during construction. These mitigation measures should then be in accordance with local regulations and standards or international best practice.
- ◆ Namport could install a real-time noise monitoring system to provide immediate and accurate noise levels to the contractors and Namport.
- ◆ Conduct annual noise auditing to assist in classify noise sources, defining the associated noise levels (magnitude of the noise emission levels) and identify the specific measures that could reduce noise levels.
- ◆ Investigate reasonable and valid noise complaints and implementing viable noise management measures

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Health and Safety Regulations of the Labour Act and WHO Guidelines on Community Noise
- ◆ Maintain a register to record complaints received from workers and the general public. Complaints should be investigated and if required, a noise and vibration survey should be conducted.
- ◆ Bi-annual reporting of all record keeping, including corrective action taken.

11.1.11 Waste

Various types of waste will be produced during the construction phase and the volume of waste originating from the port will increase during the operational phase. Where waste is not securely stored, it may be blown into the sea or town during strong winds and may wash up on the coastline and islands or blow into the desert. This form of pollution will not only have a visual impact, but may also negatively impact on marine and terrestrial animals like dolphins, seals and birds (e.g. entanglement, accidental ingestion, etc.).

Some wastes are hazardous and may deteriorate the quality of the environment, especially the waters in the bay (see section 11.1.12).

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
		Before Mitigation/Prevention							
Construction	Waste entering the environment	2	-2	2	2	2	-24	-3	Definite
Operations	An increase in waste requiring disposal	2	-2	3	2	2	-28	-3	Definite
After Mitigation/Prevention									
Construction	Waste entering the environment	2	-1	2	2	2	-12	-2	Probable
Operations	An increase in waste requiring disposal	2	-1	3	2	2	-14	-2	Probable

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

Actions

Prevention

- ◆ Appointment of reputable contractors with a known history of environmental responsibility.
- ◆ Communicate proper waste disposal procedures to the contractor and employees.
- ◆ 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 within the confines of the port and ensure waste cannot be blown away by wind.
- ◆ Prevent scavenging (human and non-human) of waste.
- ◆ For hazardous substances, see the material safety data sheets available from suppliers for disposal of contaminated products and empty containers.

Mitigation

- ◆ Waste should regular be disposed of at appropriately classified disposal facilities, this includes hazardous materials (empty chemical containers and contaminated rugs, paper, water and soil), if any. Since Lüderitz does not have a hazardous waste site, such waste will have to be transported to Windhoek or Walvis Bay for disposal.
- ◆ To prevent people from using potentially contaminated containers for transport or holding of drinking water, all containers that will be discarded must be crushed or punctured prior to disposal.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ A record should be kept of any disposal of hazardous waste.
- ◆ Any complaints received regarding waste should be recorded with notes on action taken.
- ◆ Bi-annual reporting on all record keeping, including corrective action taken.

11.1.12 Water Quality

Impacts on water quality may negatively affect various receptors such as aquatic organisms, mariculture farms and seawater intakes (fish processing and land-based mariculture). Water quality can deteriorate during construction as a result of mixing of sediment in the water column (during dredging or filling of the reclaimed area), spilled or leaked hydrocarbons and chemicals directly entering the water or being blown/washed into the water from nearby surfaces.

With the larger port, more vessels can dock and load/offload cargo simultaneously. For bulk product loading/offloading this increases the potential for dust to be produced and blown into the water.

Many pollutants that can enter the water may result in reproductive abnormalities and reduced fertility, which may put the local food web at risk. It may also accumulate in aquatic organisms, especially filter feeders like mussels and oysters, and magnify in higher trophic levels where physiological stress and abnormalities can realise. For the mariculture industry, it may prevent the export of mariculture products and causes financial losses if pollution plumes reach mariculture areas.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	Suspension of sediments during dredging and reclamation and hazardous substances and waste entering the water	2	-3	3	2	1	-36	-3	Probable
Operations	Hazardous substances and waste entering the water	2	-3	3	2	2	-42	-4	Probable
After Mitigation/Prevention									
Construction	Suspension of sediments during dredging and reclamation and hazardous substances and waste entering the water	2	-2	3	2	1	-20	-24	Probable
Operations	Hazardous substances and waste entering the water	2	-2	3	2	2	-28	-3	Probable

Desired Outcome: To protect sensitive receptors against impacts of reduced water quality as a result of construction activities and pollution

Actions

Prevention

- ◆ Appointment of reputable contractors with a known history of environmental responsibility.
- ◆ Regularly inspect and maintain all vehicles and infrastructure, to minimize the chances of infrastructure failure. Regular training and refresher courses for operators of machinery and infrastructure that can cause pollution.
- ◆ Vehicles and heavy machinery should not be serviced on site.
- ◆ Dredger operators must adhere to the approved EMP for dredging.
- ◆ Port tenants must, where applicable, conduct their own EIA and operate according to their EMP which must be in line with the port's EMP.

Mitigation

- ◆ Use drip trays to contain leaks and repair such leaks before continuing to use the equipment/vehicle.
- ◆ Clean-up action must be taken immediately for all instances where any hazardous (and non-hazardous product is spilled or leaked.
- ◆ Where relevant a conditions survey should be conducted post-clean-up to confirm successful clean-up.
- ◆ For large spills containment equipment must be available such as absorbents and booms for oil spills in the ocean.
- ◆ Regular inspection and reporting on non-compliance to EMP requirements. Issue non-compliance order and follow up to confirm corrective action taken.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Inspection registers, logging of incidents, reporting of incidents, corrective action taken and inclusion in bi-annual report.

11.1.13 Ecological

Construction activities will impact the marine ecosystem in a localised small footprint. The area earmarked for the port expansion as well as its manoeuvring areas to be dredged will be completely destroyed. No range restricted endemic or unique species are expected or known of in the area.

Marine mammals do not frequent the area earmarked for construction and they will likely avoid the area during construction as a result of noise and activity.

During operations, various structures can act as suitable areas for birds to roost or nest. Bright lights used at night may impact birds like flamingos that fly at night. They may become blinded and disorientated, causing collisions with structures or veering off course.

Operational impacts will mostly be the same as that of the existing port, although at a larger scale.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	Habitat destruction and displacement, injury or mortality of marine organisms, pollution	2	-2	3	3	2	-32	-3	Definite
Operations	Reduced water quality, impact of bright lights on birds, pollution	2	-3	3	2	2	-42	-4	Probable
After Mitigation/Prevention									
Construction	Habitat destruction and displacement, injury or mortality of marine organisms, pollution	2	-1	3	3	2	-16	-2	Definite
Operations	Reduced water quality, impact of bright lights on birds, pollution	2	-2	3	2	2	-28	-3	Probable

Desired Outcome: To prevent or minimise destruction, degradation and disturbance of the ecological environment.

Actions:

Prevention

- ◆ Appointment of reputable contractors with a known history of environmental responsibility.
- ◆ Clearly define the footprint of the project area and work within this footprint at all times.
- ◆ Follow the EMP sections on noise, water quality and waste in order to minimise impacts on marine and terrestrial organisms and the environment.
- ◆ Dredger operators must adhere to the approved EMP for dredging.
- ◆ Port tenants must, where applicable, conduct their own EIA and operate according to their EMP which must be in line with the port's EMP.
- ◆ If any mortalities in marine fauna are observed at or around the construction site, it should be reported to the Directorate of Fisheries and the cause investigated and corrective action implemented if applicable.

Mitigation

- ◆ All lighting should be directed downwards to construction and operational areas to not blind birds flying at night.

- ◆ Use the minimum lighting required for safe operations and use auto dimming lights when no activity is ongoing.
- ◆ Record any bird strikes and take corrective action if needed.

Responsible Body:

- ◆ Proponent
- ◆ Contractor

Data Sources and Monitoring:

- ◆ Record any marine mammal sightings and any other significant encounters or observations of animals and birds (including sick or dead animals) and report these to the local offices of the MEFT and MAFWLR.
- ◆ Bi-annual reporting of all record keeping, including corrective action taken.

11.1.14 Visual

The expansion project will increase the footprint of the commercial harbour, while the industrial nature will remain the same. This will have an impact on the visual character of the area, and a visual impact assessment was commissioned to determine the extent of impacts on the environment for the Phase 1 quay expansion project (Young 2025). The study indicated that “the visual effect of the Project, during both construction and operation, will lead to negative alterations to the visual baseline. These changes would be noticeable from nearby tourist and public observation points. The likelihood of a negative visual impact is high. The cumulative impact of the proposed Project activities, combined with the existing urban and industrial character of the port, is regarded as of moderate significance, as the Project activities would contribute negatively to the current visual and aesthetic baseline, particularly for sensitive viewing areas.” With mitigation as presented below, the conclusion of the assessment is however that the project should proceed.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	The presence of construction teams and equipment	2	-2	2	2	2	-24	-3	Highly Probable
Operations	The presence of new port facilities and infrastructure changing the landscape character	2	-3	3	3	2	-48	-4	Definite
After Mitigation/Prevention									
Construction	The presence of construction teams and equipment	2	-1	2	2	2	-12	-2	Highly Probable
Operations	The presence of new port facilities and infrastructure changing the landscape character	2	-2	3	3	2	-32	-3	Definite

Desired Outcome: To minimise the negative visual impact of the new port expansion.

Actions

Mitigation

- ◆ Confine construction to day time only.
- ◆ Contain construction and establishment activities within specifically demarcated areas with the smallest footprint possible.
- ◆ Regular waste disposal at an approved landfill site.
- ◆ Paint the buildings and structures with colours that reflect and complement the colours of the surrounding landscape, rock, and other structures.
- ◆ “Housekeeping” procedures should be developed for the Project to ensure that the Project sites and lands adjacent to the Project sites are kept clean of debris, garbage, graffiti, fugitive trash, or waste generated onsite; procedures should extend to control of “track out” of dirt on vehicles leaving the port area.
- ◆ Install light fixtures that provide precisely directed illumination to reduce light “spillage” beyond the immediate surroundings of the site.
- ◆ Avoid high pole top security lighting along the periphery of the site and use only lights that are activated on illegal entry to the site.
- ◆ Minimise the number of light fixtures to the bare minimum, including security lighting.

Responsible Body

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Record all complaints received and investigate the validity of such complaints. Record all corrective measures taken.
- ◆ A bi-annual report should be compiled of all complaints received and actions taken.

11.1.15 Culture, Heritage and Archaeology

Various buildings, objects and areas in and around Lüderitz have some degree of cultural, heritage or archaeological significance. These range from being declared national monuments (e.g. buildings) to unprotected remnants of early habitation (e.g. middens). Directly relevant to the expansion project are heritage resources located within the broader harbour environment and the historic buildings along transport routes used by trucks to and from the port. Section 9.4 briefly discuss culture, heritage and archaeological aspects.

Construction activity or human presence outside of the planned port footprint can damage known or undiscovered heritage and archaeological remnants or artefacts. Dredging of sediments can also uncover similar items that may be present underneath sediments on the seabed. As noted in Section 9.4, heritage resources identified through specialist studies relate to the Phase 1 expansion footprint and associated nearshore focus areas, and the expansion project area addressed in this report is spatially removed from those areas. Nevertheless, indirect impacts can still occur through, among others, noise and visual effects, and dust and exhaust emissions from trucks passing older buildings can damage paintwork and contribute to localised acidic conditions (acid rain) during fog or rain events.

The jetty itself is approximately 80 years old which makes it a structure that requires consent from the NHC to be demolished.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Before Mitigation/Prevention									
Construction	Damage to known or undiscovered heritage and archaeological remnants or artefacts. Damage to old buildings.	3	-2	3	3	1	-35	-3	Probable
Operations	Damage to known or undiscovered heritage and archaeological remnants or artefacts. Diminished sense of place. Damage to old buildings.	3	-2	2	3	1	30	-3	Probable
After Mitigation/Prevention									
Construction	Damage to known or undiscovered heritage and archaeological remnants or artefacts. Damage to old buildings.	3	-1	3	2	1	-18	-2	Improbable
Operations	Damage to known or undiscovered heritage and archaeological remnants or artefacts. Diminished sense of place. Damage to old buildings.	3	-1	2	2	1	-15	-2	Improbable

Desired Outcome: To prevent damage to, or loss of, artefacts and buildings of archaeological / heritage value.

Action:

Prevention

- ◆ Appointment of reputable contractors.
- ◆ All construction and operational personnel must, as part of induction, be:

- Informed to be vigilant for and report on any artefacts that may constitute an archaeologically or heritage significant find.
- To prevent damage to any artefacts that may constitute an archaeologically or heritage significant find.

Mitigation

- ◆ Obtain consent from the NHC for the demolition of the wooden jetty.
- ◆ Any reporting on artefacts that may constitute an archaeologically or heritage significant find must be investigated by a designated person and the chance find procedure must be implemented. Work in the vicinity of the find must be stopped and can only continue once cleared by an archaeologist/heritage specialists registered with the NHC.
- ◆ Vehicle emissions and dust affecting buildings requires a joint effort by Namport, LTC and port operators to find alternatives and solutions to redirect traffic or implement strict control over allowable emissions and the covering of loads.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ National Heritage Act
- ◆ NHC Consent
- ◆ Chance find procedure
- ◆ Record any discoveries of potentially significant archaeological or heritage artefacts and report it to the NHC.
- ◆ Bi-annual report of all record keeping and the proof of reporting of any discoveries to the NHC.

11.1.16 Infrastructure

Damage can be caused to the existing port infrastructure during the construction phase. This may temporarily disrupt port services or create unsafe working conditions.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
		Before Mitigation/Prevention							
Construction	Damage to existing infrastructure	2	-2	2	2	1	-20	-3	Probable
After Mitigation/Prevention									
Construction	Damage to existing infrastructure	2	-2	2	2	1	-20	-3	Improbable

Desired Outcome: To prevent the damage to existing port infrastructure.

Action:

Prevention

- ◆ Appointment of reputable contractors with a known history of safe and responsible work practices.
- ◆ Trained operators of equipment.
- ◆ Emergency response plan with contact details of emergency personnel.
- ◆ Inform relevant stakeholders of the intention to work close to their facilities.
- ◆ Ensure the proper and correct functioning of all operational equipment and warning systems.

Mitigation

- ◆ Implement emergency response plan if any incident occurs.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Record and report to Namport any incidents with the corrective actions taken.
- ◆ Bi-annual report of all record keeping and the proof of reporting of any incidents to Namport.

11.2 DECOMMISSIONING

Closure and decommissioning of the expanded port as a whole is highly unlikely. However, it is possible that certain components of the project—such as auxiliary structures or civil infrastructure—may be decommissioned, upgraded or replaced at a later stage. Decommissioning is therefore included for this purpose, as well as to account for any construction activities that may involve the modification or removal of infrastructure.

Future land use after decommissioning should be assessed prior to the initiation of works, particularly if the affected land will not be used for similar purposes. Should decommissioning occur at any stage, rehabilitation of the area may be required to return the site to an acceptable condition. Decommissioning will entail the complete removal of infrastructure, including buildings, foundations, marine structures and associated support systems that are not required for the future use of the area. Any pollution present on-site must be identified, documented, and remediated in accordance with applicable environmental standards.

The impacts associated with the decommissioning phase include increased noise, dust, and waste production as structures are dismantled. These impacts are typically short-term and localised, but they must be managed effectively to avoid nuisance or environmental degradation. Noise levels must be maintained within the limits stipulated in the Health and Safety Regulations of the Labour Act and/or World Health Organization guidelines. Implementation of a waste management plan, especially for the identification and disposal of hazardous or contaminated materials, will be paramount. Waste must be securely contained and transported to licensed waste disposal sites; dumping or stockpiling in surrounding areas is not permitted. The EMP and associated waste management plan will need to be reviewed and updated at the time of full decommissioning to reflect any site changes, updated legislation, and improved mitigation approaches.

11.3 ENVIRONMENTAL MANAGEMENT SYSTEM

Namport subscribes to an environmental management system (ISO14001) that 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 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.

To ensure Namport continues to adhere to ISO14001, the contractor must also adhere to the parameters prescribed by this EMS. It remains Namport's responsibility to ensure that all contractors operating on behalf of Namport adhere to all environmental compliance requirements.

12 CONCLUSION

Namport proposes to expand the Port of Lüderitz's operational areas through a process of land reclamation and construction of a jetty in Robert Harbour. It is aimed at meeting the demand for additional operational space in the Port. The expansion will see demolition of the existing jetty structures in the southernmost part of the harbour, reclamation of approximately 3 ha of sea area, and

construction of a new concrete jetty at the north-end of the reclaimed area. This development will diversify and enlarge the business and industrial sector of Lüderitz and provide much needed employment opportunities during the construction and operational phases.

Significant negative environmental impacts resulting from construction and operations of the port are expected, unless suitable preventative and mitigating measures are implemented. The most important of the impacts are visual, noise, waste, pollution and health and safety.

The EMP accompanying this report specifies some of the enhancement measures aimed at increasing the positive impacts. This include maximising the appointment of local Namibian companies as contractors and for support services. The chance find procedure must be initiated for any potentially significant archaeological or heritage finds. All infrastructure must be designed and finished to blend in with the surroundings. Construction activities must be restricted to day time. Good housekeeping must be performed at all times and equipment must be on site to deal with any emergencies such as spills, fire and injuries.

The EMP also describes a monitoring programme to be carried out by Namport and contractor(s). This is a typical condition linked to ECCs and aims to show compliance to the EMP and environmental responsibility.

Should the DEA find that the impacts and related mitigation measures, which have been proposed in this report, are acceptable, an ECC may be granted to Namport. The ECC, based on this document, will render it a legally binding document which should be adhered to. Focus should be placed on section 11, 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 Public Participation Process

Note: Public participation for the Phase 2 port expansion project was conducted simultaneous with that of the Phase 1 expansion project. The public participation documentation, comments and responses presented in this section mostly pertains to the Phase 1 project and very little interest were shown for the Phase 2 project. All documentation, comments and responses relevant to both Phase 1 and Phase 2 are however presented below, as it is not possible to split the two Phases' public participation documentation.

Notified Interested and Affected Parties

Name	Organisation/Representative
Aletia Bock	Debmarine Namibia
Alex Gawanab	Seaflower Whitefish Corp
Alexey Zavitaev	Namport
Alpher Sinvula	Imex Commodity Traders
Andries Kok	NamWater
Angelo Isaaks	South Point Ship Agents
Anna Nekuta	Hyphen
Anton Pretorius	Logistics Support Services
Basil Brown	Diego's Sales
Bernnito Mogotsi	Ministry of Defence and Veteran Affairs
Bertrum Eiman	Eiman & NWI Trading cc
Bertus Eksteen	TransNamib
Bessly Makaula	Lüderitz Secondary School
Calvin Sisamu	NamPower
Cassius Shanjengange	Ministry of Education
Cecil Kamupingene	Namport
Christo Horn	Roshpinah Zinc
Christo Witbooi	Skorpion Zinc Mining Company (Pty) Ltd and Gergarub Exploration and Mining (Pty) Ltd
Cornelia-Snerry Mungungu	Debmarine Namibia
Darryl Smith	Kelp Blue Trading
Demi Sylvester	Luderitz Bay Shipping
Desmond Bester	Directorate of Fisheries
Eliaser Ikela	Debmarine Namibia
Elwon de Koker	Dissability/Tourism
Elzevir Gelderbloem	Namport
Erwin Mukumbi	AE Connexions
Ferdie De Villiers	Novaship
Fillemon Aupokolo	NamWater
Fillipus Hedimbi	Namport
Fluksman Samuehl	Lüderitz Waterfront Development Company
Fred Outa	TotalEnergies
Gebhard Shiindi	Coastal Infastructure Terminals
Geldenhuy's Johannes	Navy
Gerhard K	Skeleton Coast Trawling
Gloudi de Beer	O&L Group

Name	Organisation/Representative
Gregory Victor	Gregory G. Victor Fishing
Helmut Plietz	A Plietz Engineering Works
Hertha Ekanjjo	Transworld Cargo
Howard Head	Alma Marine Trust
Hubert Siljeur	Vivo Energy Namibia
Ingrid Wiesel	Brown Hyena Research Project
Innocent Sinvula	Sturrock Grindrod Maritime
Iwhan Van Wyk	Luderitz Bay Shipping
Jason Burgess	Southern Wolf Tuna Fishing
Jeremy Blood	SLR Consulting (Africa)
Jessica Kemper	Independent Environmental Scientist
Jocelin Pickering	Wilmigmar Fishing
Johan Krüger	Pekranam Logistics
Johann Coetzer	Debmarine Namibia
Jolanda Murangi	NamWater
Jonathan Washinana	Access World Logistics Namibia
Jose Calaca	Blomeha Fishing
Kalsen Neliwa	Marco Fishing
Kenneth Victor	Kenneth Victor Fishing
Lesheni Mweshixwa	Ministry of Defence and Veteran Affairs
Lewis Druker	Coastways Tours Luderitz
Lukas Kufuna	Namport
Luther Mostert	Walvis Bay Ship Chandlers
Manfred Victor	M.T Victor Fishing
Manns Kennedy	Gondwana Diamond Mining
Mara-lee Naris	Prim Fishing
Marie Lemerle	Brown Hyena Research Project
Mario Harris	MMH Building Renovations
Marion Schelkle	Lüderitz Safaris & Tours
Marlon Biwa	Vivo Energy Namibia
Max Khrone	Karanas Investment
Maxine Cloete	Woker Freight Services
Merlyn Claasen	Namibia Wildlife Resorts
Michael Mckenzie	Marco Fishing
Miguel Calaca	Hangana Abalone
Monique De Wee	Skeleton Coast Trawling
Natassia Coetzee	Namibian Revenue Agency
Ockert Sales	Hardcore Logistics
Ockert Theron	Logistics Support Services / I-Logistics
Patrick Van Zyl	Logistics Support Services / I-Logistics
Paul Marubella	Namport

Name	Organisation/Representative
Pertus Siloka	Fisheries Observers Agency
Peter-John Sylvester	Breakwater Diamond Mining
Rassie Erasmus	Benguella Wealth Farming
Rauna Shikwaya	Namport
Renette Ferreira	Eastercliff Fishing
Renette Ferreira	R&FO Fishing
Richard Kennedy	Namport
Robert Hailume	Namibia Wildlife Resorts
Sheldon Husselmann	Hyphen
Solange Strauss	Hydrolec
Stefanus Gariseb	Namport
Suama Kali	Ministry of Home Affairs, Immigration, Safety and Security
Sunday Nelenge	Namibia Wildlife Resorts
Suzette Weyers	Tradeport Namibia Investments
Szacky Nujoma	Nuwal Management Services CC
Taune Hiholiwe	Ministry of Education
Temba Apulile	Access World Logistics Namibia
Theofelus Dos Santos	Skeleton Coast Trawling
Titus K. Paulus	Seaflower Whitefish Corp
Ulf Grünwald	Lüderitz Nest Hotel
Wilhelm Steenkamp	Essenzeit Restaurant
William Korff	Chemvet / Lüderitz Diving
Winfried Henok	Namport
	CIF Namibia Infrastructure Development Forum
	Lüderitz Waterfront Development Company
	NamPower
	TotalEnergies
	TransNamib

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THE NAMIBIAN

MONDAY 18 AUGUST 2025 7



What are your thoughts on the National Youth Development Fund?



Alitha Maria (20)

Cabinet has done really well and should invest some of the funds into YouTube monetisation as we actually have good content creators that can make money from these platforms.



Pia Shousiku (18)

Firstly, the government has done an incredible job proving to the youth of Namibia that they actually care about young people, however, money can be invested in employment so when they graduate they don't wind up on the streets.



Rivaldo Kavanga (23)

It is a great initiative by the government. I believe the government has already planned which sectors it should get into, such as the creative sector and the eco-green sector.

• WILMA IITA

CABINET approved NS\$257 million for the National Youth Development Fund (NYDF). The allocation forms part of a NS\$500-million commitment for the 2025/26 financial year, aimed at tackling youth unemployment and promoting entrepreneurship in key sectors including agriculture, green initiatives and manufacturing.

The fund is exclusively for people aged 18 to 35.

What are your thoughts on the youth fund?



Bronwyn Blaauw (21)

I believe the government should invest in sport. We have very good athletes in our country. However, due to a lack of resources, our athletes don't make it to an international level.



Claudius Riruako (23)

This is a good investment that will be empowering the youth. This is the future, we are the future. More of these investments should be made.



Junior Katoma (19)

For the youth this is a very tremendous opportunity and we will be able to see growth. Although I believe in equity, let's help the youth gain employment and empower the future.

PUBLIC PARTICIPATION NOTICE
ENVIRONMENTAL ASSESSMENT: LAND RECLAMATION AND EXPANSION OF THE PORT OF LÜDERITZ, IIKARAS REGION

Geo Pollution Technologies (Pty) Ltd was appointed by the Namibian Ports Authority (Namport), to undertake an environmental assessment (EA) for a proposed Port of Lüderitz expansion project. The project will entail land reclamation, extension of the existing quay, and replacement of the old concrete jetty in order to create approximately 17 ha of additional port space with associated berthing areas. This will allow for the berthing of additional vessels and increased cargo storage space, and thus increase the much needed cargo handling capacity of the port, without the need for any onshore infrastructure construction. Additional and location information pertaining to the project and proposed operations can be obtained at: <http://www.thenamib.com/projects/projects.html>

The environmental assessment is conducted according to the Environmental Management Act of 2007 and its regulations as published in 2012. Interested and affected parties are invited to register with the environmental consultant to be provided with the opportunity to share comments, issues or concerns related to the project, for consideration in the EA. Registration, requests for additional information, and comments and concerns should be submitted to Geo Pollution Technologies by 01 September 2025.

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 Tel: +264-61-257411
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 E-Mail: port@thenamib.com

EXTERNAL VACANCY



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The Namibia Statistics Agency (NSA) was established in terms of the Statistics Act No.9 of 2011. The Agency is mandated, amongst others, to constitute the central statistical authority of the State and to collect, produce, analyse, and disseminate official statistics in Namibia.

Position:
 Web developer: NHIES Project (Fixed term Contract)

Duty stations:
 NSA Head Office, Windhoek



Closing Date: 22 August 2025
 More details at: www.nsa.org.na/vacancies

mOshiwambo

Tuma etumwalaka lyoye efupi nenge "sms" konomola ndji 99902, amanga inooshanga etumwalaka lyoye, tameka noshitya Oshi opo ihe to landulithako "osms" yoye. Osms kehe ota yi gu N\$1.

Sankwasa okwa pula ovanangeshefa koKatima va file oshiwana oshisho

MINISTA womayambulepo zedoolopa noitopolwa yokomikunda James Sankwasa okwa ti ola ninga efimbo opo ovanangeshefa koKatima Mulilo va tameke okushinifa omauwa moshwana. Sankwasa okwa li ta popi pefimbo loshooongalele novanangeshefa novakalimo mongulu yooyongalele yaNgweze Etine. Pefimbo loshooongalele, Sankwasa okwa popya kuya oshike sha eta a teye po zwiliko lodoolopa laKatima Mulilo, ndee ta pula oshiwana kutya oshike naana sha pumbwa okuningwa po kuyambulwe po odoolopa. Sankwasa okwa yandja ombedi kovanangeshefa vomodoolopa omo eshi itava wanifa po oinakuwanifa

yavo yomoshiwana ndee ta ti oku na oku va fininika va kalele po oshinima osho monakwiiwa. "Oule wefimbo lile, otwa kala nokutala ovanangeshefa itava shunifa omauwa moshwana ashike otwa kala ashike itatau shi popi. MoKatima Mulilo omu na unene eemumbwe dihapu odo ovanangeshefa tava dulu okukandula po mouwa woshiwana. Ondi shi shii kutya opu na vavve ovo tava ninga osho tava dulu, ashike nee, opu na ovo tava yandje ashike koohandimwe ndee itava yandje koshiwana ashishe," osho a ti ngaho. Sankwasa okwa yeleka kutya eyandjo lomadu kovanhu vomomudingonoko



Efano: Lugeretzja Koope

OSHIWANA SHAZAMBEZI ... Ovakalimo omafele vomoZambezi novanangeshefa okwa li va holoka koshooongalele sha ningwa kuminista womayambulepo eedoolopa noitopolwa yokomikunda James Sankwasa koKatima Mulilo Etine

ovo hava hoolola nali fimanekwe. "Ohatu fimanekwe ovahoololi vetu ovo vetu hoolola mangha inatu ya kovanhu ovo ihava hoolola. Katu li ominge nomunangeshefa washwa oo a hala okutota ongeshefa. Otwa hala ashike shi ningwe pamulandu oo u na okulandulwa," osho a weda po ngaho.

Sankwasa ota longifa outanga

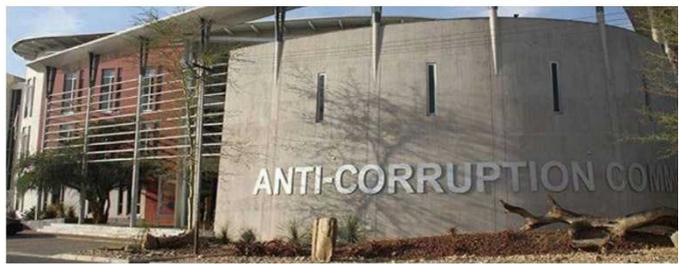
namibian
Omaluudo omudindi woshifo

OVAKALIMO vomedoolopa otava pandula nokutanga ministra James Sankwasa eshi ta ponokele eekamusela damuni shaashi vati di na oulingilingi nokadi na owino. Ovakalimo moNamibia alishe paife otava pula Sankwasa a kufe moilonga eekamusela dimwe momalelo eedoolopa konima a longifa oveta a kufe moilonga ovanambeleva va hoololwa koKatima Mulilo. Konima ashike a kufa ovanhu moilonga koKatima, Sankwasa okwa twikila nokuninga omatilifo kutya ota kufa ovanailonga voshilando pangelo, Ovenduka, moilonga, ta popi "oilonga ya nghundipala". Ovahoololi nava kotokele ovaxunganeke ovanaiipupulu. Kakele kwaasho, ova-hoololi nava kotoke vaha tilesi okaana nomeva. Heeno, ehandu lovakalimo unene ngaa meedoolopa oli li mondjila. Ashike outanga waSankwasa kau shi eekandulepo lomukundu koulungilingi ncekamusela dihe na novanhu da hoololwa di ye meembeleva damuni paudemokoli. Sankwasa naye okwa nyika opolitika. RedForce okwe mu lundila kutya ota longifa eenghono daye douniministili a potokonone onima yaye yopauwene konima ehango lanyaika lokwoongela eengunga vati kwa li la teta ko omayakulo aye amuni koKatima shaashi okwa dopa okufuta omayakulo aye. Ponhele yokukala omuwiliki eli nawa, Sankwasa noiyo ikwa imwe yOkabinete ova faashike eshina lokolutenda tali faduka po, la kolwa keenghono. Ohatu shi efefe ovanawino neemhangu di mone nege Sankwasa oveta okwi longifa ngaa mondjila eshi a kufa ovanambeleva va hoololwa moilonga. Eshi sha yela osheshi kutya okwa dopa okulandula omilandu odo di li paucyelele nopayuyiki.

Pausihili, Sankwasa okwa ningila eekamusela omalundilo akula oulingilingi nonghee nee okwa pumbwa okuwashilipaleka kutya oda pangulwa nokupeva omahandukilo ponhele yokukufa ashike ovakondjifi vaye papolitika mombelewa. Ovahoololi inava yandja po oinakuwanifa yavo kuSankwasa oina hoololwa, mokuungaunga novanhu ovo va hoolola va yandje omeva, eendjila, olusheno, va wapaleke odoolopa nokuyandja omayakulo akwa amuni. Eehanhi 18 modolongo molwoshin-gulu?

JONAH NDAKALAKO

wokOshakati okwa li a tulwa modoolongu oule wechanhi 18 konima omhangu yopobada oshivike sha dja ko ya ningulula etokolo lamagestrata olo la londoda ombudi yoshingulu i kale inai udikila sha vali oule womido mbali. Ndakalako ti okwa dipaya oshingudulu muJuli 2022 opo a ongele oshimalwa shekonakono londodo 10 lamumwaina. Ongomunhu opo ta ningi oshinima shapuka lwotete, Ndakalako okwa li a pulwa e litwale kodolongo kOndangwa. Omhangu yopobada oya ti kutya oveta otai ti omunhu opo ta nyono lwotete a monika ondjo youlunga woshimuna shongushu yoNS500 na peve ehandukilo modolongo loule wefimbo inali koyapa pomido mbali. Okatendo koumbudi woimuna oke shiivike nawa kutya 'oveta yaJerry Ekandjo' shaashi okwa li ka totwa konima ministra mukulu woipambele yomeumbo e ka fininika mopaliamente konima kwa li oikombo yaye ya vakwa kofaalama yaye. Olaninga efimbo ovatotiveta va talulule oveta ei he li mondjila. Otai hepeke ashike eehepele ashike kapu na okushunifa sha koonakuningwa oihakanwa yoombudu woimuna. Ndakalako ota ka wedela ashike omawaalu wovanadoolongo notashi dulika nokuli a dje moa ninga ongalala ikukutu. Presidente ne mu mangelule divadiva.



Efano: La yandjwa

OLWOODI INALI PWA ... Okomisi yaNamibia yokulwifa oulingilingi oya ti olwoodi layo lokududa mo oulingilingi aushe moshilongo inali pwa, natango otai twikile nokulonga oilonga yayo.

Ovanailonga vatatu velelo loshitopolwahoololo shaZambezi va mangwa po

OVANAILONGA vatatu velelo loshitopolwahoololo shaZambezi okwa li va mangwa po omutenya wEtine noiopofa youlingilingi yotendela ya kwatakaniwa noZambezi Waterfront. Omupopiliko wokomisi yaNamibia yokulwifa oulingilingi yedina Anti-Corruption Commission (ACC), Josephina Nghituwamata momapulaapulo noNampa Etine, okwa ti ovanailonga ovo vatatu okwa li va teelelika va holoke momhangu yamages-trata moKatima Mulilo Eitano. "Ashike nee, itandi dulu nande okuhoolola omaukwatya avo mangha inava holoka momhangu," osho a ti ngaho. Komanda wopolifi yaNamibia koshi-topolwahoololo shaZambezi, komisina Andreas Shilelo naye okwa koleka kutya ovalumenhu vavali nomukainhu umwe ova mangwa po. "Ovanhu ava vatatu ove li kodolongo yaKatima Mulilo," osho a ti ngaho. Omakonakono otaa twikile natango moshikumungu omu.

PUBLIC PARTICIPATION NOTICE ENVIRONMENTAL ASSESSMENT: LAND RECLAMATION AND EXPANSION OF THE PORT OF LÜDERITZ, LIKARAS REGION

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GETYE BY WALVISBAAI: 09:58 L: 16:01 H: 22:37

VOORUITSIGTE

Table with weather forecasts for Windhoek, Rundu, Oshakati, Gobabis, Mariental, Keetmanshoop, Walvisbaai, Luanda, Johannesburg, and Kaapstad.

Melber bedank oor 'Slagter van Lubango'

VAN BL. 1

"Kameraad President, u erkenning van wyle Solomon Hawala het pyllike herinnering teruggebring aan die donkerste hoofstuk in Swapo se geskiedenis, wat ons sedertdien nie erken en waarvoor ons nie verantwoordelikheid geneem het nie. U het hom geprys as 'n ikoniese figuur van die Namibiese revolusie en verklaar dat u sy lewe wat hy in die nastrewing van vryheid, vrede, eenheid en voorspoed vir alle Namibiese mense gewy het, sal vier. U het aan hom 'n onwrikbare toewyding aan nasionale eenheid toegeskryf, as 'n inspirasie vir toekomstige geslagte. "Ten spyte van beter wete, het u hom die eer van 'n staatsbegrafnis betoon," het hy gesê. Vir 'n halfeeu, het Melber gesê, het hy oortuigend gebly dat solidariteit, vryheid en geregtigheid die leidende beginsels vir die party was. "Daar was baie geleenthede waar ek, vandat ek bewus geword het van die berugte gate, bekommerd was dat my geloof as 'n verskoning gedien het om nie van Swapo afskeid te neem nie, wat 'n sentrale plek in my lewe gehad het as 'n baken van hoop en optimisme. Die tyd het aangebreek om te erken dat ek myself net soveel gefokus het as wat Swapo die mense verraa het," het Melber geskryf. "As 'n saak van die herstel van persoonlike integriteit, is dit uiteindelik tyd vir my om weg te stap. Wees verseker dat my



Die gerekende politieke ontleder, prof. Henning Melber. FOTO ARGIEF

liefde vir en lojaliteit teenoor Namibië en haar mense wat teen alle verwagtinge veg vir 'n menswaardige en ordentlike lewe, ongeskonde sal bly. Julle kan op my staatmaak dat ek lojaal bly aan die gees van en toewyding aan solidariteit, vryheid en geregtigheid," het hy bygevoeg.

Melber het grootgeword in Esslingen am Neckar en Leutkirch in Baden-Württemberg, Duitsland. Hy het in 1967 as tiener en die seun van Duitse immigrante na Namibië verhuis en sy skoolloopbaan in 1970 aan die Duitse Hoër Privaatskool in Windhoek voltooi. Melber het in 1974 by die Swapo-bewrydingsbeweging aangesluit. Van 1975 tot 1989 is hy verban om Namibië binne te gaan en tot 1993 ook Suid-Afrika. Na Namibië se onafhanklikheid op 21 Maart 1990 het hy na die land teruggekeer. In 2000 het hy na Swede verhuis. Melber se bedanking volg op president Nandi-Ndaitwah wat postuum nasionale heldestatus en 'n staatsbegrafnis aan die afgetrede luitenant-generaal Dumeni Solomon Hawala toegeken het. Nandi-Ndaitwah het danky die magte wat aan haar verleen word deur die Namibiese Grondwet en die wet op die toekenning van nasionale eerbewyse, die staatsbegrafnis vir Hawala aangekondig wat op 11 Augustus dood is. Die begrafnis vind op 6 September op Ongwediva in die Oshana-streek plaas. "President Nandi-Ndaitwah erken luitenant-generaal (afgetree) Hawala vir sy voortreflike militêre diens, standvastige leierskap en onwrikbare toewyding tot Namibië se bevryding en nasiebou. Sy nalatenskap bly 'n simbool van moed, patriotisme en verbintenis tot die ideale van vryheid en onafhanklikheid," lui die aankondiging. "Namens die regering en die mense van die Republiek van Namibië, betuig president Nandi-Ndaitwah opreëte meegevoel aan die hele bedroefde familie, kamerade en vriende en wens hulle sterkte en vertroosting toe

gedurende die tyd van rou." Swapo se sekretaris-generaal, Sophia Shaningwa het teen druktyd nie op 'n versoek vir kommentaar gereageer nie. Verlede week het NMH berig regeringsamptenare is verdeel oor of 'n heldebegrafnis toegestaan moet word aan Solomon 'Jesus' Hawala wat wyd verbind word met beweerde menseregteskendings in Swapo se gevangenskap in Angola tydens die bevrydingstryd. Hawala, wat die bynaam 'Slagter van Lubango' gekry het vir die beweerde gruweldade, word deur baie beskou as een van die sentrale figure in Namibië se oorlog vir onafhanklikheid. Pauline Dempers, koördineerder van Breaking the Wall of Silence (BWS), het Sondag op die program The Agenda op Network Television (NTV) gesê sy beskou wyle Jesus Hawala nie in isolasie nie. Volgens Dempers het hy "die bevel uitgevoer waarop Swapo besluit het" en dat die gruweldade wat gedurende die tydperk gepleeg is, gesien moet word in die konteks van breër partyrygrye. "Ons kan dus nie na Jesus Hawala kyk as hierdie een man wat gekom het om Namibiërs te martel en dood te maak nie. Hierdie optrede was deel van besluite wat geneem is, moontlik deur die sentrale komitee of politiburo van Swapo, wat spioene geteiken het. "Ja, hy was wreed, maar hy het 'n taak uitgevoer," het Dempers gesê. Sy het ook die vraag gestel indien Hawala onafhanklik opgetree het, waarom wyle stigterspresident Sam Nujoma as opperbevelhebber dan nie sulke misbruike kon stop nie. -republiekin@republiekin.com.na

NWR in 'operasionele verlamming'

VAN BL. 1

Volgens hulle het 'n onlangse brief van die minister van die omgewing en toerisme Indileni Daniel, aan die NWR-raad hul ergste vrees bevestig. "Die einste leierskap wat bedoel is om ons maatskappy te lei, dryf dit aktief in die grond in, wat ons volgehoute lewensbestaan en die toekoms van ons gesinne direk bedreig."

In die minister se brief gedateer 12 Oktober 2025 en gerig aan NWR se raadsvoorsitter ambassadeur Haroldt/Urih, het Daniel gesê sy het na 'n vergadering wat op 2 Julie 2025 gehou is, verdere besonderhede versoek rakende verskeie belangrike sake wat bespreek is.

"Ongelukkig het ek nog geen korrespondensie van u kantoor rakende die Sun Karros-oreenkoms, About Africa-konvensie, Enercon-maatskappy se brandstoforeenkoms, Haliburg-groep en Alensy-oreenkoms ontvang nie.

"Ek sal dit waardeur om 'n gedetailleerde beskrywing te ontvang van die vordering van gebeure en belangrike ontwikkelings met betrekking tot die bogenoemde maatskappye, wat tot die huidige stand van sake geleë het.

"Onmiddellik, aangesien genoeg tyd verloop het sedert ons vergadering waar ek versoek het dat hierdie inligting dadelik ingedien word," het Daniel in die brief versoek.

Sy noem ook dat dit meer as vier maande is sedert sy die amp as minister aanvaar het.

"In hierdie tydperk het ek geen formele verslae van die raad van direkteur ontvang rakende die bedrywighede, bestuur of finansiële gesondheid van Namibia Wildlife Resorts (NWR) nie. Ek moet my diep teleurstelling uitspreek oor die raad se prestasie en die oënskynlike versuim om sy fidusiere en toetsing-houdende verantwoordelikhede uit te voer.

"Tot op hede is die jaarlikse begroting, ouditverslae of 'n geïntegreerde strategiese sakeplan, fundamentele instrumente wat bedrywighede rig en aanspreeklikheid versker in ooreenstemming met bestuurs- en regulatiese raamwerke, nie aan my voorgeleë nie.

"Die afwesigheid van hierdie dokumente dui nie net op nie-nakoming nie, maar ook op 'n kommerwekkende gebrek aan finansiële en operasionele toetsing."

Daniel sê voorts in haar brief dat die maats-

kappy se prestasie steeds afneem sonder enige sigbare ingryping of strategiese herleiding van die raad.

"Die voortgesette stilte rakende korrektiewe stappe vir uitvoerende onderprestasie, tesame met die kommerwekkende situasie van die maatskappysekretaris wat gelyktydig as besturende direkteur optree, het kommer oor leierskapsdoeltreffendheid en korporatiewe bestuur vererger.

"In die lig van bogenoemde versoek ek hiermee dringend die volgende van die direkteur binne tien werksdae vanaf die datum van hierdie korrespondensie: die huidige jaarlikse begroting van die maatskappy, die jongste goedgekeurde finansiële state, 'n omvattende geïntegreerde strategiese sakeplan, rekords van raadsbesluite wat maatskappy-prestasie aanspreek, verduideliking van uitvoerende rolle en aanstellings en 'n uiteensetting van strategiese belyning tussen NWR se aktiwiteite en die Swapo Party se manifest en implementeringsplan.

Indileni Daniel MINISTER

"Ek beskou die heersende traagheid asof dit NWR in 'n toestand van operasionele verlamming plaas."

"Ek beskou die heersende traagheid asof dit NWR in 'n toestand van operasionele verlamming plaas. 'n Behoorlike strategiese ommekering is noodsaaklik, en dit begin met deursigtigheid en verantwoordbaarheid van die raad. Versuim om hierdie bekommernisse aan te spreek, sal verdere betrokkenheid op die hoogste vlak noodsaak om die doeltreffende funksionering van NWR in ooreenstemming met nasionale verwagtinge en beleidsriglyne te verseker," het Daniel gemaak.

Volgens die werknemers skets die minister se brief 'n skrikwekkende prentjie van growwe onbevoegdheid en openlike verset deur die NWR-raad.

"Ons, die mense wat dag in en dag uit onvermoed word, sien die agteruitgang eerste-hand. Nou weerspieël die minister se woorde ons ang: sy is diep teleurgesteld in die raad se prestasie en die oënskynlike mislukking om sy fidusiere en toetsinghoudende verantwoordelikhede uit te voer. Dit gaan nie net oor korporatiewe bestuur nie; dit gaan om ons werk, ons pensioene en ons vermoë om ons kinders te voed," het die groep geskryf.

"Ons moet die katastrofiese rol van die finansiële hoof in hierdie finansiële ineenstorting en die direkte impak daarvan op ons bedrywighede en gaste bekleemtoon. Ons die personeel aan die voortsitende oorbestedings, ly geweldige basiese voorrade te bekom om doeltreffende diens aan ons gaste te lewer. Bestellings vir aankope, noodsaaklik vir daaglikse bedrywighede, neem weke om deur die finansiële hoof goedgekeur te word. Hierdie blante ondoeltreffendheid beteken dat ons nie eers basiese noodsaaklikhede vir ons gaste kan verkry nie," sê werknemers.

Hulle het gemeen die operasionele chaos wat direk verband hou met die finansiële hooi se bottelnekke wat veroorsaak word weens gebrek aan optrede, stel nie net NWR se reputasie in gevaar nie, maar "ook die veiligheid van almal op ons eiendomme".

NWR se waarnemende besturende direkteur Brian Masule het Donderdag by navraag vir kommentaar erken hy het die brief gesien Volgens Masule is dit waarskynlik gaste kryskryf deur kritici wat die direkteur wil verwyder. Hy het egter beklemtoon dat 'n amptelike reaksie eers uitgereik sal word sodra interne prosedures gevolg is. Masule het Vrydag nie gereageer toe hy vir verdere kommentaar gevra is nie.

Die omgewingsminister het deur haar persoonlike assistent beloof om op vroeë te reageer, maar dit is teen druktyd nog nie ontvang nie. -republiekin@republiekin.com.na

PUBLIC PARTICIPATION NOTICE ENVIRONMENTAL ASSESSMENT: LAND RECLAMATION AND EXPANSION OF THE PORT OF LÜDERITZ, IKARAS REGION

Geo Pollution Technologies (Pty) Ltd was appointed by the Namibian Ports Authority (Namport), to undertake an environmental assessment (EA) for a proposed Port of Lüderitz expansion project. The project will entail land reclamation, extension of the existing quay, and replacement of the old concrete jetty in order to create approximately 17 ha of additional port space with associated berthing areas. This will allow for the berthing of additional vessels and increased cargo storage space, and thus increase the much needed cargo handling capacity of the port, without the need for any onshore infrastructure construction. Additional and location information pertaining to the project and proposed operations can be obtained at: http://www.thenamib.com/projects/projects.html

The environmental assessment is conducted according to the Environmental Management Act of 2007 and its regulations as published in 2012.

Interested and affected parties are invited to register with the environmental consultant to be provided with the opportunity to share comments, issues or concerns related to the project, for consideration in the EA. Registration, requests for additional information, and comments and concerns should be submitted to Geo Pollution Technologies by 01 September 2025.

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WEER

BINNELAND: Sonlig en warm in die |Kharasstreek. Eiders sonnig en warm, maar baie warm in die Noorde.

KUS: Gedeeltelik bewolk en matig tot warm met miskollie.

GETYE BY WALVISBAAI: H: 04:36 L: 10:25 H: 16:52

VOORUITSIGTE

WINDHOEK		11°	29°
RUNDU		15°	35°
OSHAKATI		10°	35°
GOBABIS		13°	33°
MARIENTAL		10°	32°
KEETMANSHOOP		12°	27°
WALVISBAAI		10°	17°
LUANDA		20°	25°
JOHANNESBURG		11°	27°
KAAPSTAD		11°	18°



CLOETE KATROL GROOTSTE VIS IN BY VISFEES

iwakopmund-inwoner Vernon Cloete het Saterdag die grootste vis tydens die jaarlikse Hentiesbaai Visfees ingekatrol. "Dit is die eerste keer dat ek 'n vis gevang en 'n prys daarmee gewen het. Dit was 'n groot gesukkel om hierdie een uit te kry, maar ek is baie trots op die vang." Vernon het sy steenbras van 12,31 kg by Myl 30 gevang het. Volgens Simen Andersen, president van die Namibië Kushengelvereniging en jashoof van die kompetisie, het meer as 350 hengears deelgeneem en dit as 'n reuse sukses beskryf. "Dis iets besonder wat Hentiesbaai vir die mense van Namibië bring." Beefcor-direkteur Jaco Swanevoel (links) het die wentjek ten bedrae van N\$25 000 voorhandig. FOTO VERSKAF

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Renosterboer: Wettiging in horinghandel verg 'n spanpoging

VAN BL 1

"Ongelukkig, wanneer private eienaars renosters van hul eiendomme verwyder, daal die totale hoeveelheid witrenosterhabitat in Namibië."

Namibië het sedert 2022 altesaam 124 witrenosters na Angola, Suid-Afrika, Zambië en Amerika uitgevoer. Muller se renosters is na Texas uitgevoer en hy het gister bevestig dit gaan baie goed met hulle.

Die Cites-beraad sal van 24 November tot 5 Desember in Oezbekistan plaasvind.

55 AANKLAGTE TEEN HUME

Hume (83), wat daarvan beskuldig word dat hy by 'n internasionale sindikaat betrokke was wat in renosterhoring handel dryf, hou vol hy is onskuldig. Hy het in 'n brief aan sy vriende en familie gesê hy werk sedert 2020 aktief saam met

die Suid-Afrikaanse polisie diens (SAPS) om met die ondersoek te help.

"Gedurende dié tydperk het ek aan elke versoek voldoen en openlik met wettoepassing geskalk om met hul ondersoek te help. Dat borgtog onbestrede was, spreek boekdele. Dit weerspreek die staat se vertroue in my bereidwilligheid om die proses met waardigheid te trotseer en ek glo dit beklemtoon hul erkenning van my integriteit en aanspreeklikheid," skryf Hume.

Hy het verlede week saam met vyf medebeskuldigdes, onder wie 'n familielid, sy voormalige prokureurs en sy plaasbestuurder in die landdroshof in Pretoria verskyn op 55 aanklagte wat verband hou met die onwettige handel in renosterhoring. Die aanklagte wissel van bedrog, geldwassery en diefstal, die oortreding van die Wet op Nasionale Omgewingsbestuur en Biodiver-



Derek Lewitton is vir eers 'n vry man. FOTO FACEBOOK

siteit 2004 tot rampokkery. Intussen is nog 'n renosterboer in Suid-Afrika, Derek Lewitton (55), wat sowat twee jaar gelede in Limpopo in 'n dramatiese klopjag gearresteer is omdat hy glo onwettig in die besit van renosterhorings was, vir eers 'n vry man. Al die aanklagte teen

Lewitton, wat in Suid-Afrika gebore is en Amerika grootgeword het, is verlede week in die landdroshof in Namakgale buite Phalaborwa laat vaar.

Lewitton is die eienaar van die Black Rock Rhino-bewaringsoord op die Harmony-plaas buite Gravelotte. - francoise@nmh.com.na



John Hume (heel links) saam met sy medebeskuldigdes in die landdroshof in Pretoria. FOTO FACEBOOK

Hof las Chinese sakeman moet opdok

VAN BL 1

Volgens hofdokumente is haar diens skielik beëindig. In plaas daarvan om met waardigheid te vertrek, het Li vir George opdrag gegee om haar uniform onmiddellik uit te trek. Om haarself te bedek, is sy óf 'n kartonboks óf 'n stuk materiaal oorhandig.

Die afdanking wat in die openbaar gebeur het, het George blootgestel en verneder gelaat. Regsverteenvoerders het aangevoer dat die manier van ontslag 'n skending van haar grondwetlike regte op waardigheid en beskerming teen wrede, onmenslike en vernede-



Takeya Ruth George FOTO NBC

rende behandeling was. George, verteenwoordig deur regsverteenvoerders Wilbard Kagola van HS Law, het 'n sivielse eis teen Li ingestel en grondwetlike skadevergoeding geëis.

Kagola het aangevoer dat die werkgewer se gedrag nie net emosionele en sielkundige skade veroorsaak het nie, maar ook 'n gevaarlike presedent geskep het indien dit nie nagekom word nie.

Regter Thomas Masuku het Vrydag uitspraak gelewer en in George se guns beslis.

"Li Bailong word gelas om N\$230 000 weens grondwetlike skadevergoeding te betaal vir die skending van waardigheid en vi [George] aan wrede, onmenslike en vernederende behandeling onderwerp het," het die uitspraak gelui.

Die hof het verder beveel dat Li ook vir George se regskoste moet opdok. Li se teeneis van laaste teen haar is van die hand gewys. In 'n brief aan George ná die uitspraak, het HS Law beklemtoon dat die uitslag die fundamentele belangrikheid van waardigheid in indiensneming herbevestig het. "Die saak is 'n duidelike bevestiging van die grondwetlike beskerming teen vernederende behandeling in die werkplek," het Kagola gesê.

Site Notice





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To: The Executive Director
Ministry of Education, Innovation, Youth, Sport, Arts & Culture
Private Bag 13186, Windhoek



Dear Sir/Madam

Re: Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, Karas Region

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 I), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

The Namibian Ports Authority (Namport) proposes two phases of expansion of the existing port infrastructure (Figure 1). Phase 1 will entail extending the main quay wall by 500 m and reclaiming of approximately 14 hectares of sea area below the high-water mark (i.e. the existing legal jurisdiction of the Port of Lüderitz) to serve as backup land for the extended quay. Phase 2 will see demolition of the obsolete concrete jetty in the southernmost part of the harbour (Menai Creek), and reclamation of approximately 3 ha of sea area. A new concrete jetty will then be constructed at the north-end of the reclaimed area. The extended quay walls, new jetty and additional backup land will allow for the berthing of additional vessels and increased backup cargo storage space, and thus increase the much needed cargo handling capacity of the port, without the need for any onshore infrastructure construction.

Geo Pollution Technologies (Pty) Ltd, an independent environmental consultant, was appointed by Namport to conduct an environmental assessment for the proposed Phase 2 expansion activity. The environmental assessment's purpose is to identify and address the potential impacts of the expansion on the environment, where the environment includes biophysical, social and economic impacts. The environmental assessment will be accompanied by an environmental management plan (EMP) and will ultimately, depending on the conclusion of the assessment, be submitted to the Ministry of Environment, Forestry and Tourism, to apply for an environmental clearance certificate (ECC). The environmental assessment is conducted in accordance with the Environmental Management Act of 2007 and its regulations as published in 2012.

Authorities, interested and affected parties or neighbours are invited to register with Geo Pollution Technologies to receive further documentation and communication regarding the project and the

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Directors:

P. Botha (B.Sc. Hons. Hydrogeology) (Managing)

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15 August 2025

To: **The Executive Director
 Ministry of Industrialisation, Mines and Energy
 Private Bag 13289, Windhoek**

Dear Sir/Madam

Re: Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

The Namibian Ports Authority (Namport) proposes two phases of expansion of the existing port infrastructure (Figure 1). Phase 1 will entail extending the main quay wall by 500 m and reclaiming of approximately 14 hectares of sea area below the high-water mark (i.e. the existing legal jurisdiction of the Port of Lüderitz) to serve as backup land for the extended quay. Phase 2 will see demolition of the obsolete concrete jetty in the southernmost part of the harbour (Menai Creek), and reclamation of approximately 3 ha of sea area. A new concrete jetty will then be constructed at the north-end of the reclaimed area. The extended quay walls, new jetty and additional backup land will allow for the berthing of additional vessels and increased backup cargo storage space, and thus increase the much needed cargo handling capacity of the port, without the need for any onshore infrastructure construction.

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15 August 2025

To: The Executive Director
Ministry of Defence and Veterans Affairs
Private Bag 13307, Windhoek

Dear Sir/Madam

Re: Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

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15 August 2025

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To: **The Executive Director
 Ministry of Agriculture, Fisheries, Water & Land Reform
 Private Bag 13184, Windhoek**

Dear Sir/Madam

Re: Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

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To: **The Executive Director**
Ministry of Environment, Forestry and Tourism
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MINISTRY OF ENVIRONMENT FORESTRY AND TOURISM	15 August 2025
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19 AUG 2025 081 952 8523 Tel: 061 284 2333 Fax: 061 22 9936	<i>Matyide</i>
Private Bag 13306 WINDHOEK/ NAMIBIA	

Dear Sir/Madam

Re: **Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region**

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

The Namibian Ports Authority (Namport) proposes two phases of expansion of the existing port infrastructure (Figure 1). Phase 1 will entail extending the main quay wall by 500 m and reclaiming of approximately 14 hectares of sea area below the high-water mark (i.e. the existing legal jurisdiction of the Port of Lüderitz) to serve as backup land for the extended quay. Phase 2 will see demolition of the obsolete concrete jetty in the southernmost part of the harbour (Menai Creek), and reclamation of approximately 3 ha of sea area. A new concrete jetty will then be constructed at the north-end of the reclaimed area. The extended quay walls, new jetty and additional backup land will allow for the berthing of additional vessels and increased backup cargo storage space, and thus increase the much needed cargo handling capacity of the port, without the need for any onshore infrastructure construction.

Geo Pollution Technologies (Pty) Ltd, an independent environmental consultant, was appointed by Namport to conduct an environmental assessment for the proposed Phase 2 expansion activity. The environmental assessment's purpose is to identify and address the potential impacts of the expansion on the environment, where the environment includes biophysical, social and economic impacts. The environmental assessment will be accompanied by an environmental management plan (EMP) and will ultimately, depending on the conclusion of the assessment, be submitted to the Ministry of Environment, Forestry and Tourism, to apply for an environmental clearance certificate (ECC). The environmental assessment is conducted in accordance with the Environmental Management Act of 2007 and its regulations as published in 2012.

Authorities, interested and affected parties or neighbours are invited to register with Geo Pollution Technologies to receive further documentation and communication regarding the project and the environmental assessment. A public meeting to present and discuss the project will be conducted in Lüderitz. The details of the meeting will be communicated to registered parties.

Page 1 of 4

Directors:

P. Botha (B.Sc. Hons. Hydrogeology) (Managing)

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 E-Mail: gpt@thenamib.com



1 August 2025

To: **The Executive Director**
Ministry of Home Affairs, Immigration, Safety & Security
 Private Bag 13200, Windhoek

Dear Sir/Madam

Re: Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

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15 August 2025

To: **The Executive Director
 Ministry of Works and Transport
 Private Bag 13340, Windhoek**

Dear Sir/Madam

Re: **Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region**

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

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15 August 2025

To: **The Executive Director
 National Planning Commission
 Private Bag 13356, Windhoek**

Dear Sir/Madam

Re: **Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region**

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

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15 August 2025

To: **The Executive Director**
Ministry of Urban and Rural Development
Private Bag 13289, Windhoek



Dear Sir/Madam

Re: Phase 2 Land Reclamation and Expansion of the Port of Lüderitz, ||Karas Region

Lüderitz, historically established as a harbour town, hosts the Port of Lüderitz (Figure 1 1), one of two ports in Namibia. For more than a century, the Port of Lüderitz has been central to the town's economic activities and sustaining of the local community's livelihoods. Recent developments in the oil and gas sector, as well as an increased demand for port services related to the export of bulk metal ores and overall increased port utilisation leading to congestion, have necessitated Namport to investigate options to increase port capacity in Lüderitz. Due to the existing port being locked in by the town, land-based expansion of the port is severely restricted, while water depth and shallow bedrock limits offshore development. Therefore, over the last couple of decades, various studies have been conducted to identify different scenarios for increasing port capacity. These included developing completely new port infrastructure at locations such as North East Point, Angra Point, Shearwater Bay and Dias Point. While the development of a new deep-water port at a location such as Angra Point remains under consideration, expanding the existing port at Robert Harbour turned out to be a necessary option for certain port activities to grow. The Robert Harbour expansion option was thus concluded to be a more feasible option in terms of logistics, financial viability, and time efficiency.

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Directors:

P. Botha (B.Sc. Hons. Hydrogeology) (Managing)

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Invitations to Public Meetings



Head Office
Port of Walvis Bay
P.O. Box 361
Walvis Bay, Namibia

Port of Lüderitz
P.O. Box 836
Lüderitz, Namibia

Directors
Ms. N Hamunyela
(Chairperson)
Mr. J Mouton
(Deputy Chairperson)
Mr. I Tjombonde
Mr. A Kathindi
Ms. V Cloete
Mr. S Ndeunyema

Chief Executive Officer
Mr. A Kanime

**Chief Legal Advisor &
Company Secretary**
Ms. EN Tomas

NAMIBIAN PORTS AUTHORITY

E-mail: elzevir@namport.com.na
Enquiries: Elzevir Gelderbloem

Fax: +264 64 2082373
Tel: +264 64 2082337

PER EMAIL

17 September 2025

TO: ALL INTERESTED AND AFFECTED PARTIES (IAPs)
ENVIRONMENTAL IMPACT ASSESSMENT STUDY
PROJECT: PORT OF LÜDERITZ ROBERT HARBOUR EXPANSION

Dear IAP

SUBJECT: INVITATION TO ATTEND THE “PUBLIC CONSULTATION PROCESS” FOR THE ENVIRONMENTAL IMPACT ASSESSMENT STUDY FOR THE PROJECT: PORT OF LUDERITZ ROBERT HARBOUR EXPANSION

I would herewith like to extend an invitation to you to attend this *Public Consultation Process* for the above-mentioned project environmental impact assessment (EIA) study.

In terms of the Environmental Management ACT 7 of 2007, including its regulations, you were identified as an IAP which, as per the ACT regulations, is defined as follows:

“Interested and affected party”, in relation to the assessment of a listed activity includes:

- a) *any person, group of persons or organization interested in or affected by an activity; and*
- b) *any organ of state that may have jurisdiction over any aspect of the activity;*

“Public consultation process” means a process referred to in regulation 21, in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters.

Subsequent to the meetings we had with yourselves in the past that dealt with this subject matter, we have since made significant progress with the EIA studies. Our independent expert consultants have since completed the draft reports of the specialist studies that were conducted as part of the Environmental Impact Assessment (EIA) study process. These specialist studies were the noise, visual, aboveground and underwater heritage assessment studies.

These study reports will now be presented to the public and all Interested and Affected Parties (IAPs) in formal meetings that are scheduled for early October 2025 in Lüderitz. Our appointed consultants, Geo Pollution Technologies (Pty) Ltd, will

The Namibian Ports Authority was established by the Namibian Ports Authority Act, No. 2 of 1994, and is recognised as a public enterprise in terms of the Public Enterprises Governance Act, No. 1 of 2019.

The Standard Conditions of Service of Namport shall apply to all services rendered by it and is available at www.namport.com





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Mr. A Kanime

**Chief Legal Advisor &
Company Secretary**
Ms. EN Tomas

NAMIBIAN PORTS AUTHORITY

share with you the details of the planned consultation sessions (refer to the attachments to this letter). Once the relevant experts have presented the findings of these specialist impact studies at the upcoming meetings, they will then open the window for written comments, questions and feedback from everyone.

All these reports, including the feedback and comments from IAPs, will then be used by the consultants to compile the final EIA and EMP reports which will then be submitted to the **Ministry of Environment and Tourism** as well as the **National Heritage Council**, for final consideration.

Finally, your presence and active participation at this session will be greatly valued and appreciated.

Please contact the undersigned should you have any questions or comments in this regard.

Yours Sincerely

Andrew Kanime
CHIEF EXECUTIVE OFFICER



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18 September 2025

To: Executive Director, Ministry of Education, Innovation, Youth, Sports, Arts & Culture
 The Governor, ||Kharas Region
 The Mayor, Lüderitz
 ||Kharas Regional Council
 Lüderitz Town Council
 National Heritage Council of Namibia
 Nama Traditional Leaders Association
 !Aman Traditional Authority
 OvaHerero Traditional Authority

Dear Sir/Madam

Meeting: Environmental Impact Assessment Study for the Proposed Port of Lüderitz Robert Harbour Expansion Project

Reference is made to our email with letters of notification for an environmental assessment sent in August 2025, with subject **Environmental Assessments - Lüderitz**. As part of the environmental assessment process, a series of three public meetings will be conducted in Lüderitz. The purpose and content of all three meetings are the same, they are however targeted at different audiences in order to facilitate fruitful discussions with relevant target groups.

You are thus cordially invited to the first of these meetings with meeting details as follows:

Date: 03 October 2025
Time: 09:00
Venue: Turnhalle, Corner of Ring and Klippen Roads, Lüderitz

The meeting will be a platform for Geo Pollution Technologies (Pty) Ltd to provide information regarding the project and the environmental process, as well as to obtain input from the meeting attendees.

Please confirm attendance by Friday 26 September 2025.

Please do not hesitate to contact us for any additional information or clarifications.

Sincerely

Dr. André Faul
 Conservation Ecologist

Directors:

Page 1 of 1
 P. Botha (B.Sc. Hons. Hydrogeology) (Managing)



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18 September 2025

To: Interested and Affected Parties

Dear Sir/Madam

Public Meeting: Environmental Impact Assessment Study for the Proposed Port of Lüderitz Robert Harbour Expansion Project

Reference is made to our email with letters of notification for an environmental assessment sent in August 2025, with subject **Environmental Assessments - Lüderitz**. As part of the environmental assessment process, a series of two public meetings will be conducted in Lüderitz. The purpose and content of the two meetings are the same. They are however scheduled as to allow the business community, employees, and persons that need to travel, to be able to attend.

You are thus cordially invited to one of the following two meetings with meeting details as follows:

Date: 03 October 2025

Time: 14:30

Venue: Turnhalle, Corner of Ring and Klippen Roads, Lüderitz

Or

Date: 04 October 2025

Time: 10:00

Venue: Turnhalle, Corner of Ring and Klippen Roads, Lüderitz

The meeting will be a platform for Geo Pollution Technologies (Pty) Ltd to provide information regarding the project and the environmental process, as well as to obtain input from the meeting attendees.

Please confirm attendance by Friday 26 September 2025.

Please do not hesitate to contact us for any additional information or clarifications.

Sincerely

Dr. André Faul
Conservation Ecologist

Directors:

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P. Botha (B.Sc. Hons. Hydrogeology) (Managing)

Appendix B Registered IAPs and Comments Received

Registered Interested and Affected Parties

Name	Organisation
Aina Petrus	
Alexey Zavitaev	Namport
Andrew Kanime	Namport
Anna Nekuta	Hyphen
Cecil Kamupingene	Namport
Christo Witbooi	Skorpion Zinc Mining Company (Pty) Ltd and Gergarub Exploration and Mining (Pty) Ltd
Christof Boois	!Aman Traditional Authority
Cyril Santoni	
Daniel T Frederick	//Kharas Region
Dr. Lima Maartens	LM Environmental Consulting
Dura A Mutota	Namibian Navy
Edward Heal	Kelp Blue Trading
Elwon de Koker	Dissability/Tourism
Elzevir Gelderbloem	Namport
Erbetina Konraad	!Aman Community
Erich Looser	Haus Sandrose
Erwin Mukumbi	AC Connections Trading
Fanuel Shinedima	TotalEnergies
Ferdie De Villiers	Novaship
Fredrika Nassauw	!Aman Traditional Authority
Gloudi de Beer	O&L Group
Helena Antonius	Lüderitz Town Council
Helmut Plietz	A Plietz Engineering Works
Hendrik Frederik	!Aman Traditional Authority
Isaac Musungu	Lüderitz Town Council
Isak Rooi	!Aman Traditional Authority
Jeremy Blood	SLR Consulting (Africa)
Jessica Kemper	Independent Environmental Scientist
JN Toivo	Lüderitz Town Council
Johannes Frederick	!Aman Traditional Authority
Johannes Ortman	Nama Traditional Leaders Association
Johannes Swartz	!Aman Traditional Authority
Johannes T Swartz	!Aman Traditional Authority
Justine Louw	Lüderitz Town Council
Kaino Enkali	
L Mweshixwa	Namibian Navy
Lazarus Kairabeb	Nama Traditional Leaders Association
Leoné Wolhuter	Skorpion Zinc Mining Company (Pty) Ltd and Gergarub Exploration and Mining (Pty) Ltd
Lucius Murorua	Nama Traditional Leaders Association Representative
Lucy Bok	!Aman Traditional Authority
Manfred Anderson	Trans Hex
Melliny Kido	!Aman Traditional Authority

Name	Organisation
Michael Isaacs	Ministry of Industries, Mines and Energy
Miguel Calaca	Hangana Abalone
Mosiena Rooi	!Nami-nus Constituency Office
Otis Daniels	Namibia Media Holdings
Paul Herero	!Aman Community
Paul Marubella	Namport
Randell Beukes	Lüderitz Waterfront Development Company
Rassie Erasmus	Benguella Wealth Farming
Ria van Stade	Directorate Auxiliary Services
Richard Kennedy	Namport
Richie Mutendere	Hyphen
Robyn Christians	SLR Consulting (Africa)
Ruth Nujoma	TotalEnergies
Ruth Sheendelwako	Resident
Saggeus Shimuandi	Etemo
Sheldon Husselmann	Hyphen
Shimwe Ya France	MAVI Geotechnical & Environmental Services
T Peterson	
Theodor Muduva	GIZ
Thomas Shipepe	Samoht Nambuli
TP Kambonde	Lüderitz Town Council
Wenzel Corneliës	!Aman Traditional Authority
Winfried Henok	Namport
Yvan Jacobs	Directorate Auxiliary Services
Zeno Roland Mathias Pack	GIZ
Micheal Kahiriri	Ovaherero Traditional Authority
Mutjinde Katjiua	Ovaherero Traditional Authority
Ovaherero Traditional Authority	Ovaherero Traditional Authority

Minutes of Public Meeting: Lüderitz Port Expansion Project**Date: 03 October 2025****Time: 09:00****Venue: Turnhalle, Lüderitz****Attendance:**

Name and Surname	Organisation
Pierre Botha	Geo Pollution Technologies
André Faul	Geo Pollution Technologies
Morné de Jager	Enviro Acoustic Research
Vanessa Maitland	Maritime Archaeologist
Justine Louw	Lüderitz Town Council
Elzevir Gelderbloem	Namport
Wenzel Corneliës	!Aman Traditional Authority
Lucy Bok	!Aman Traditional Authority
Hendrik Frederik	!Aman Traditional Authority
Fredrika Nassauw	!Aman Traditional Authority
Melliny Kido	!Aman Traditional Authority
Isak Rooi	!Aman Traditional Authority
Christof Boois	!Aman Traditional Authority
Johannes Frederick	!Aman Traditional Authority
Cecil Kamupingene	Namport
Alexey Zavitaev	Namport
Johannes T Swartz	!Aman Traditional Authority
Mosiena Rooi	!Nami-nus Constituency Office
JN Toivo	Lüderitz Town Council
TP Kamonde	Lüderitz Town Council
Winfried Henok	Namport
Isaac Musungu	Lüderitz Town Council
Lucius Murorua	Nama Traditional Leaders Association Representative
Paul Marubella	Namport
Richard Kennedy	Namport
Randell Beukes	Lüderitz Waterfront Development Company
Helena Antonius	Lüderitz Town Council
Andrew Kanime	Namport

Abbreviations

dB	Decibel
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GPT	Geo Pollution Technologies
IAP	Interested and Affected Party
LTC	Lüderitz Town Council
MEFT	Ministry of Environment, Forestry and Tourism
NHC	National Heritage Council of Namibia
NTLA	Nama Traditional Leaders Association

Minutes

Dr. André Faul welcomed all parties at the meeting and provided brief introductions and gave an overview of the project and what an environmental impact assessment entails. He then presented the findings of the visual impact assessment and terrestrial archaeology assessment after which he handed over to Ms. Vanessa Maitland to present the findings of the maritime archaeological assessment. Mr. Morné de Jager presented the findings of the noise assessment after which the audience were provided with the opportunity to ask questions.

Mr. [unknown] asked about the timeframe related to a finding during the construction phase [chance find procedure when an archaeological artefact is unearthed]. Specifically how long it will take before work can restart so that it does not hinder development.

Dr. Faul mentioned he is not sure whether there is a specific timeframe coupled to it, but that it will depend on the type of object found. If it is not something particularly important work can probably restart quickly, but if it is for example a mass grave it will take much longer.

Ms. Maitland answered that you can often tell from a picture what an artefact is. So often it can be concluded very fast.

Mr. Botha mentioned that the chances of finding something is very slim as the work will be offshore and a diving exercise was conducted for the maritime assessment and no archaeologically important artefacts were detected.

Mr. Randell Beukes of the Lüderitz Waterfront Development Company expressed his interest in the noise study that was conducted and asked if wind plays a role in noise. The Lüderitz Waterfront Development Company plans a hotel on next to Robert Harbour. He wondered if the wind will increase the noise generated at the harbour at the hotel.

Mr. de Jager stated various factors that affect noise including wind, temperature (day time vs night time), humidity, fog, etc. He explained that when wind has a speed up to 3 m/s, sound waves travelling in the direction the wind is blowing, is refracted downwards and thus increases the noise by up to 5 dB. However, when the wind speed increase above 5 m/s, turbulence start affecting sound waves and this reduces the noise experienced downwind.

Mr. [unknown] asked how long it will be before submission of the report to the MEFT.

Dr. Faul answered that it will depend on the amount of input that will still be received from the public and stated that the reports must also be circulated to registered IAPs for review and commenting. Ideally it should be finalized by end of October/beginning of November.

Ms. Justine Louw of the LTC asked about the impact on the jetty which is under the management of the Lüderitz Waterfront Development Company. She stated it is part of the active tourism corridors in Lüderitz and asked what recommendations are there to mitigate the impact of demolishing the jetty for Phase 2.

Mr. Gelderbloem stated it is not the waterfront jetty that will be demolished. It is the old wooden jetty that is already falling apart that will be replaced.

Chief Johannes Frederick of the !Aman Traditional Authority stated that although they were at first not well informed about the project, they now, having received more information, support the project as the custodians of the area. The questions they had were answered except one which is the issue of dust. He further said that the project must continue in order to create employment opportunities.

Dr. Faul explained that there are many more aspects than what were addressed in the meeting that will be in the assessment, including dust during construction and operations. He mentioned that dust is already addressed in Namport's operational EMP for the Port of Lüderitz. He further stated that those tenants that will have potential dust causing activities, must also have their own environmental assessments and management plans in which dust prevention must be included.

Chief Frederick also mentioned that in previous discussions between the NTLA and Namport, the issue of noise referred to the impact of noise on the skeletal remains of the ancestors buried at Shark Island rather than how noise will influence other receptors.

Mr. Pierre Botha indicated that the diving survey of Ms. Maitland indicated that no human remains were detected around Shark Island where the development will take place. Noise should thus not impact skeletal remains.

Chief Frederick confirmed that this is the answer that was sought by the community [i.e. if there are human remains or not]. One of the !Aman Traditional Authority councilors noted that they were present during the diving searches to observe if anything were found and stated that indeed nothing was found.

Ms. Louw asked what the buffer zone [no development zone] around the island will be as referred to in Ms. Maitland findings.

Dr. Faul said that the recommended buffer is about 20 m. There will thus be about 20 m of water between the rocky shore and the port area. The design will ultimately be finalized based on input from the specialists.

Mr. Botha stated that the studies were based on a rough footprint of where the port will be and that final designs will only later be completed.

Ms. Maitland indicated that the underwater topography will also ultimately determine where the reclaimed area's western border will/can be.

Mr. Gelderbloem stated that they can at maximum implement a buffer of 20 m. More than this jeopardises the feasibility of the project as not enough backup land will be available to support port operations.

A question was asked if cruise ships will still be allowed to enter the port or will this be suspended until construction is complete.

Mr. Gelderbloem affirmed that current operations will not be stopped or impacted.

It was asked if the detailed design of the port is not finalized yet and if the LTC can for example still give input on the aesthetics of the new design.

Mr. Gelderbloem confirmed that this is indeed the case. The EIA and EMP will advise on for example the maximum height of the buildings and the proposed colours of the buildings.

A question was asked regarding the duration of the project and when the port expansion will be finalized.

Mr Gelderbloem mentioned that the project is already behind schedule, but the process will not be rushed. All approval processes must first be completed. If construction can commence in 2025 it can be finalized by 2027 to 2028.

Ms. Louw asked if those parties objecting to the development, and those that are pro the development, can meet and find common ground for the project to proceed.

Mr. Gelderbloem said that the current meetings are aimed at precisely that. The consultants [GPT] will finalise the reports with all comments received from IAPs and if they find that the comments are completely negative, than another round of meetings may be required. If the comments are positive, then the submission will be made to the MEFT and the NHC. Also, if the objections are material and holds water, the authorities will not easily approve the project.

Mr. Andrew Kanime, the chief executive officer of Namport, commented that if the studies indicate that there are no human remains under water, the submissions must be made. Consultation cannot go on indefinitely. The specialist studies were already commissioned based on the concerns of IAPs and were not part of the original scope. He reiterated that they will try to find a common ground. Ultimately, the MEFT and NHC will make the decision, but a balanced report must be submitted to them.

Mr. Beukes asked if the potable water supply to Lüderitz was assessed and if a water supply study was conducted.

Dr. Faul indicated that over last years he asked NamWater for their water supply and demand statistics as part of other projects he was involved with. To date there is enough surplus water to supply the project.

Mr. Botha indicated that the groundwater reserves can further be developed if need be, as NamWater only abstract from the edge of the groundwater scheme. He further stated that if more water is required, desalination can also be considered.

Mr. Beukes explained that he is more concerned if the daily demand can be met by the supply from the storage reservoir.

Mr. Gelderbloem indicated that should the water supply be insufficient, a small, portable desalination plant can be used. He also stated that during operations the water demand will not put pressure on the towns supply.

Mr. Lucius Murorua, representing the NTLA, acknowledged that there is overall positive feedback from the community and that they embrace the project. He further stated that he was asked by the NTLA to observe the proceedings of the meetings and he is happy that the custodians of the land [the !Aman] are present and that they have a positive sentiment towards the project. He also reiterated the importance of the LTC to provide input on the aesthetics when the designs are finalised in order to preserve the memory of Shark Island. He said society has to move forward, but communities must not be alienated. He said he is happy, he has seen the positive sentiment towards the project with his own eyes. He mentioned the !Aman is the custodians of the land and as such they are also the “owners” of Namport which is a national asset. He further noted that all aspects of the project must be harmonized in order to move forward in a unified manner.

With no further questions the meeting was adjourned.

Minutes of Public Meeting: Lüderitz Port Expansion Project

Date: 04 October 2025

Time: 14:30

Venue: Turnhalle, Lüderitz

Attendance:

Name and Surname	Organisation
Pierre Botha	Geo Pollution Technologies
André Faul	Geo Pollution Technologies
Morné de Jager	Enviro Acoustic Research
Vanessa Maitland	Maritime Archaeologist
Elzevir Gelderbloem	Namport
Wenzel Cornelius	!Aman Traditional Authority
Otis Daniels	Namibia Media Holdings
Yvan Jacobs	Directorate Auxiliary Services
Fanuel Shinedima	TotalEnergies
Zeno Pack	GIZ
Helmut Plietz	A. Plietz Engineering
Ed Heal	Kelp Blue
Dura A Mutota	Namibian Navy
L Mweshixwa	Namibian Navy
Theodor Muduva	GIZ
Ria van Stade	Directorate Auxiliary Services
Richie Mutendere	Hyphen
Erich Looser	Haus Sandrose
Aina Petrus	
Kaino Enkali	

Name and Surname	Organisation
Andrew Kanime	Namport

Abbreviations

ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
MEFT	Ministry of Environment, Forestry and Tourism
NHC	National Heritage Council of Namibia

Minutes

Dr. André Faul welcomed all parties at the meeting and provided brief introductions and gave an overview of the project and what an environmental impact assessment entails. He then presented the findings of the visual impact assessment and terrestrial archaeology assessment after which he handed over to Ms. Vanessa Maitland to present the findings of the maritime archaeological assessment. Mr. Morné de Jager presented the findings of the noise assessment after which the audience were provided with the opportunity to ask questions.

Mr. Erich Looser, as a resident in Bismarck Street, asked if any thought has been given to access to the port, as all trucks currently gain access to the port via the main road [Bismarck Street] of Lüderitz.

Dr. Faul mentioned that the transport issue [trucks in town on route to the Port] is an issue that has been looked at a lot in previous studies, especially with the EIA for the transport of manganese ore to the port. Various aspects have been considered and brainstormed to minimize or prevent impacts associated with transport. This included considering other ways of getting to the port, rather than taking Bismarck Street. He further noted that it is a difficult problem to address and an optimal solution could to date not be formalized and implemented. In the Pektranam EIA it was suggested that as long as Bismarck Street has to be used, mitigation measures to reduce noise and traffic impacts can include ensuring responsible driving, maybe removing speed bumps so that trucks don't have to slow down and accelerate, as this is causing more noise, as well as possibly having marshals at the intersections/four-way stops, who can stop oncoming traffic and give right of way to trucks which can come in convoy so that they don't have to stop. Again, a constant speed has less noise than stopping and going. It was also suggested by Pektranam to make use of different routes for going to and from the port to spread the impact in town.

Mr. Elzevir Gelderbloem mentioned that Namport together with the municipality have and are continuing to look at the transport issue. He mentioned there are various options, starting from a truck staging area outside of Lüderitz, and then coming in slowly but surely, to having two routes into town. Another extreme option will be to build a new road which will go around, on the right side of, Lüderitz, but this will cause other impacts and uproots numerous houses. A bridge into the port is also another extreme option. The extreme options are however far in the future. He mentioned that the port expansion will not double the traffic, it will also be a slow gradual increase in the traffic and together with the municipality, they will implement solutions. It will also be a mixture of solutions and not just one.

Mr. Looser asked how the trucks that will bring filling material in, be managed. He mentioned with the previous quay construction it was trucked in from inland.

Mr. Gelderbloem said that for the first quay it was brought in from a quarry behind Kolmanskop, but for the current project it will likely be sediment brought in from offshore dredge material. Using sand from the quarry is however not ruled out and if that option is used, it will have its own small EIA. It is however cheaper to get it from offshore with a dredger.

Dr. Faul noted it may be similar to the container terminal in Walvis Bay which was built with sediment dredged offshore.

Mr. Theodor Muduva noted that not everyone are experts on the technical aspects that was presented, but it shows that the consulting team have touched on all the relevant aspects. He mentioned that various options were presented and asked if the consultants are also recommending certain options or if they were just put on the table until a later stage. He asked if the various concerns from communities have

so far been considered or if the consultant just follows their own professional standards as to know what needs to be considered or looked at. The last question he posed was if various environmental standards and regulations are considered, as he has not heard much about it.

Dr. Faul answered that some of the nine options that were shown are likely not viable, but others may in future be considered, should the need for port services grow sufficiently. If they do decide to go forward with any of them, they will require their own environmental assessments.

Mr. Gelderbloem mentioned that the current project just looks at the expansion of the existing port as there is currently no demand or money for building a new port. It may however realize in future if the demand exist.

Dr. Faul then mentioned that the communities are indeed engaged. Both the Nama and Herero communities were notified and invited to participate in the process. The Nama community, specifically the !Aman Traditional Authority, were present at the first meeting. Their concerns and expectations are thus considered.

Mr Gelderbloem mentioned that the specialist assessments which were conducted and presented in the meeting were specifically requested by the communities.

Dr. Faul stated that, due to time constraints, not all environmental legislation and regulations could be discussed. The environmental assessment report will however have a section dedicated to it, with a legal register pertaining to the most important and relevant legislation. Where legislation lacks in Namibia, international best practice or World Bank/World Health Organisation standards are usually recommended.

Mr. Looser said that dust was not mentioned, and said this is also an issue with trucks coming in through town. He also mentioned that one can see the dust accumulating on the buildings.

Dr. Faul mentioned that Namport provides the facilities for tenants, but ultimately the tenants, depending on their type of business, must have their own EIAs/EMPs to which they must adhere. The current tenants transporting mineral ores must have an EIA/EMP and ECC. The same with Pektranam, where the management plan specifically state that all loads must be covered. When trucks leave the storage facilities they must also drive over a rumbling grid to dislodge any stones from between the wheels, etc. He noted that the public is awarded the opportunity by the MEFT to lodge a non-compliance complaint with them, should tenants not adhere to their EMP. The MEFT should then investigate the problem and issue a non-compliance order with a timeframe for corrective action. Should they fail to meet it, their ECC can be withdrawn. He further mentioned that Namport does not have jurisdiction outside the port area and can only focus on what happens in the port. Should a tenant's operations for example cause dust when loading ships during windy conditions, they should either halt operations until conditions approve, or implement additional mitigation measures. If they do not, Namport can take action, as they are then not adhering to the port EMP.

Mr Gelderbloem confirmed that they can take action should a complaint be lodged to them and the MEFT.

Mr. Looser mentioned that he has seen dust buckets around the port and asked if anyone looks at them.

It was confirmed that the dust buckets is Rosh Pinah Zinc and Tradeport's. Mr Gelderbloem confirmed that the tenants handling mineral ore as cargo do have dust monitoring written into their management plans.

Mr. Botha stated that in Walvis Bay tenants are definitely fined when they cause excessive dust. He further noted that in the Pektranam EIA, it was determined at an early stage that the impact of acid rain, as a result of exhaust emissions, can damage the old buildings, some of which are monuments. They are thus considering switching to electric trucks for the last stage of ore transport from outside of Lüderitz to inside the port. They also consider special suspension on the trucks to reduce noise and vibrations.

Mr. Helmut Plietz asked when the port expansion project will start.

Dr. Faul mentioned that the EIA and EMP have to be finalized and approved by Namport before it can be sent to the public for review. After that it can be submitted to the MEFT and NHC. There it will take a few months to get approval or be rejected. A record of decision should thus be available in the early months of next year and once approved it will go into the tendering process in order to still start construction in 2026.

Mr. Gelderbloem stressed that they will only start once all approvals are in place and hoped that it will still be in 2026.

With no further questions the meeting was adjourned.

Minutes of Public Meeting: Lüderitz Port Expansion Project

Date: 04 October 2025

Time: 10:00

Venue: Turnhalle, Lüderitz

Attendance:

Name and Surname	Organisation
Pierre Botha	Geo Pollution Technologies
André Faul	Geo Pollution Technologies
Morné de Jager	Enviro Acoustic Research
Vanessa Maitland	Maritime Archaeologist
Elzevir Gelderbloem	Namport
Wenzel Corneliës	!Aman Traditional Authority
Lucy Bok	!Aman Traditional Authority
Hendrik Frederik	!Aman Traditional Authority
Fredrika Nassauw	!Aman Traditional Authority
Melliny Kido	!Aman Traditional Authority
Isak Rooi	!Aman Traditional Authority
Christof Boois	!Aman Traditional Authority
Johannes Frederick	!Aman Traditional Authority
Johannes T Swartz	!Aman Traditional Authority
Paul Herero	!Aman Community
Erbetina Konraad	!Aman Community
Andrew Kanime	Namport
Yvan Jacobs	Directorate Auxiliary Services
Erwin Mukumbi	AC Connections Trading
Saggeus Shimuandi	Etemo
Michael Isaacs	Ministry of Industries, Mines and Energy
Ruth Sheendelwako	Resident
Thomas Shipepe	Samoht Nambuli

Abbreviations

EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GPT	Geo Pollution Technologies
MEFT	Ministry of Environment, Forestry and Tourism
NHC	National Heritage Council of Namibia

Minutes

Dr. André Faul welcomed all parties at the meeting. He provided brief introductions and gave an overview of the project and what an environmental impact assessment entails. He then presented the findings of the visual impact assessment and terrestrial archaeology assessment after which he handed over to Ms. Vanessa Maitland to present the findings of the maritime archaeological assessment. Mr Morné de Jager presented the findings of the noise assessment after which the audience were provided with the opportunity to ask questions.

Mr Paul Herero as a member of the !Aman community noted that this type of consultations and presentations [i.e. the public meeting] is an eye-opener. He mentioned projects should start this way with consultation first. He mentioned that the community hall maybe can serve as alternative venue so that the community can be better reached and so that they have a better understanding and reception of what is planned. He said the Nama people from the start sought clarity on the project. He asked if there are any further processes to address the concerns of the people and himself. The specialist studies conducted do give answers, but people also want to express their views. He mentioned the Nama people are peaceful people and the negative news [on social media] stating that the Nama People do not want development are false. He noted that the public meetings are useful to reach the rightful audience and said it can also be shared on social media. He further stated that the Turnhalle is perceived as a member based club which may deter people from attending at this venue. He then stated that ecological aspects related to the marine environment and shipping must be taken into account in the assessment and noted that he believes the community supports the project, but wants to be involved in the EIA process.

Mr. Botha mentioned that some baseline and specialist assessments are needed before the public consultation processed and meetings commence in order to have an understanding of the environment. While this was ongoing, GPT and Namport also learnt what the concerns of the people are and thus could commission more studies to address those concerns. He further stated that these type of meetings are usually in school halls, but they are currently occupied for examinations.

Dr. Faul stated that as a consultant they rely on the community to also provide input as to what and how they prefer to get information. He mentioned that they are always willing to accommodate requests as far as is practically possible. He then mentioned that these meetings are not the end of public consultation process. Anyone who needs more information or want further discussions are more than welcome to contact GPT. Furthermore GPT do not have strict deadlines for public consultation. It remains open until the day of submission and even after submission GPT will still provide comments that were received to MEFT.

Chief Frederick mentioned that in previous meetings and as part of the committee that was established, they [the committee] were supposed to establish a page [social media] where information can be shared. Any information received by the traditional authority would then be shared on this page and forwarded to them. Any questions can then also be relayed to GPT via the traditional authority. This is what will then in future be implemented.

It was reaffirmed that the !Aman is the custodians of the land where the port will be developed, but it does not mean the other tribes are excluded.

Mr. Herero stated that he agrees fully that the stories of the history of the Nama must be told and he commended Ms. Maitland for suggesting a scholarship to support such a study.

Thomas Shipepe mentioned that one worry is how the concerns of the community will be addressed and resolved and he stated it is good that Namport is also in attendance. He said they read about the concerns of the traditional authority, but are not sure how they will be dealt with and whether they are of such a nature that the project will be curtailed. If concerns are not addressed, this project will likely not continue.

Mr. Andrew Kanime mentioned that the current presentations on specialist studies are in response to the concerns of the communities. The environmental process followed the law requires that concerns are heard and addressed and a balance report be submitted to the MEFT and NHC. The environmental commissioner and NHC must be satisfied that the concerns are addressed and mitigation measures are sufficient. He suggested that in future the communication channels should be strengthened to make sure

communities are reached and engaged. He mentioned if another meeting is requested, it can be considered.

Mr. Botha mentioned one of the problems with public consultation is that some parties who have an interest in a project do not register with the consultant. It is important for them to register otherwise the consultant will not be aware of them or their concerns.

A short discussion ensued regarding the various authorities who represent the communities and through whom target audiences can be reached. The availability of existing EIAs for other projects, which ties in with Namport's EIAs and EMPs, were also discussed.

Ms. Ruth Sheendelwako asked if similar consultations were conducted when Lüderitz harbour's first reclamation project took place and what the results thereof were and what the community concerns were at that stage.

Mr. Gelderbloem mentioned that the first project took place in 1996 which is long before the Environmental Management Act came into force. However, because an international loan was received for the project they needed to do an EIA. It had certain requirements such as trucks were not allowed to drive into port at night and they needed special shocks.

Ms. Ruth mentioned a petition that was handed to Namport a few weeks ago and mentioned that the concerns raised in the petition should also be addressed in the report.

Mr. Kanime said the petition will be considered and all formal submissions must be included in submissions to the MEFT.

Chief Frederick reiterated that the page which the Lüderitz community would have created must be created so that from the traditional authority's side they can share information. From the !Aman Traditional Authority's side they support the project, but since they stay in Bethanie, they need the page to engage with the Lüderitz community, who will be the ones most effected by the port.

It was noted that the Town Council is looking at a radio station which can also be used to share information and all community members are encourage to share all information on social media and with each other, as well as to register with the consultant.

With no further questions the meeting was adjourned.

Comments and Responses Table

E-Mail Correspondence Received

Note: E-mails received solely for the purpose of registration as an I&AP are not included in the comments and responses table. Comments are presented as received with no changes in typing or related errors. Only correspondence and comments directly related to the Phase 2 expansion project are presented. Contact details are redacted for privacy reasons.

Comments	Response
From: Dr J Kemper Date: 19 August 2025	
<p>In particular, I am concerned about potential environmental impacts during the construction activities of both phases - especially if dredging and/or blasting is envisaged, and how associated noise (especially during blasting) could affect birds nesting on the two harbour islands (Penguin and Seal islands). Dredging harbour muds which probably contain elevated levels of heavy metals (and possibly of chemicals like anti-fouling agents etc), are likely to affect the mariculture ventures nearby, as well as the natural benthic biota associated with the shoreline and the two islands. This, in turn, could affect organisms that feed on these, including other invertebrates, but also higher trophic levels such as waders and oystercatchers. Other potential pollution sources, especially during construction activities, could include plastic/rubbish, oil, cement (and possibly others) that may affect both mariculture and the natural environment downstream.</p> <p>I assume that you will have a specialist assessing the risk that any pollutants that may be released during the construction/reclamation phases may pose, and also trust that there are practical mitigation measures that can be applied to minimise the risk to mariculture and to the natural environment, including the two harbour islands. I hope that there is already a long-term baseline study in place that monitors pollution levels in the existing port, including from manganese and lead loading activities that you could draw on, as well as any baseline studies on heavy metal accumulation in shellfish in the port area (compared to "control" areas outside the port area).</p>	<p>No blasting will be conducted for this project. Dredging will be conducted in line with the existing EIA and EMP for dredging in the Port of Lüderitz. This includes real-time monitoring for increased turbidity and pausing of dredging activities if suspension of sediments exceeds set limits. Long term baselines on water and sediment contamination levels are not available, but with previous dredging exercises, baselines were determined as presented in section 9.2. Dredging of these seabed sediments in the form of periodic maintenance dredging have been ongoing in this area of the port for as long as the port existed to date, on a 5 to 10 year cycle and has been occurring without any issues and in harmony with the existing mariculture industry.</p>
From: Lazarus Kairabeb (Nama Traditional Leaders Association) Date: 26 August 2025	
<p>Nama Traditional Leaders Association, herewith put to record that we are an interested party having historical ties with not only the park but Shark Island itself and all areas where mass graves are identified through archaeological site discovery.</p> <p>Please contact Mabos Ortman.</p>	<p>Noted</p>
From: Manfred Anderson Date: 01 September 2025	
<p>Thanks for your reply and prospective registration as an I&AP. I will study the in attached bids received and will soon file some input as I&AP.</p> <p>Looking forward to some positive intervention in these worthwhile projects.</p>	<p>Noted</p>

Comments	Response
From: Fritz A Katjiruru (Ovaherero Traditional Authority) Date: 02 October 2025	
Your email is well received and forwarded to the relevant office for a reply.	Noted
From: Lenishwa Engelbrecht Date: 02 October 2025	
<p>Thank you for your invitation to NHC to participate in the public consultation process for the Environmental Impact Assessment Study for the Port of Lüderitz / Robert Harbour Expansion, scheduled for 3 October in Lüderitz.</p> <p>Unfortunately, due to a high volume of pre-scheduled and prioritized commitments during this period, and with our limited capacity, NHC will not be able to attend the meeting. Please accept my sincere apologies for the delayed response.</p> <p>We remain interested in the project and its outcomes, and we would appreciate receiving any materials (minutes, reports, presentations) that emerge from the consultation process. Should there be another opportunity for engagement at a later date, please do not hesitate to invite us.</p> <p>Thank you for your understanding.</p>	Noted
From: Daniel T Frederick (Manfred Anderson in Copy) Date: 25 September 2025	
<p>I wish to register as an interested and affected member of the community in //Kharas Region.</p> <p>Kindly afford me the opportunity to be part of this meeting.</p> <p>Trust that you would not panelize me for late registration. I live in Keetmanshoop and would make the efforts to travel and attend.</p>	<p>Thank you for your mail and I will definitely register you for the project. You are also more than welcome at the meeting.</p> <p>Looking forward to seeing you there.</p>
From: Manfred Anderson (Daniel T Frederick in Copy) Date: 06 October 2025	
Kindly let me know the date of the meeting and when submissions will be closing.	The meetings were unfortunately already finalized last week and over the weekend. You are however still welcome to send comments/questions. I would like to finalise the report by latest next week.
From: Daniel T Frederick (Manfred Anderson in Copy) Date: 06 October 2025	
<p>This is very much unfortunate as I regarded the meeting as a platform for engagement on issues that are seriously overlooked and in our opinion excluding those who matter and also being denied to be heard.</p> <p>I definitely am definitely disappointed.</p>	<p>It was my impression from your original email, included in the below email trail, that you are aware of the meeting details and the misunderstanding is very unfortunate. I can however guarantee you that we are not excluding anyone or denying anyone to be heard. That is why I have specifically notified, among others, the !Aman TA, the NTLA and the OTA of the environmental assessment process and the meeting details. Once I have finalized the minutes of the meetings, I will</p>

Comments	Response
	<p>circulate it to all registered interested and affected parties. You are then welcome to submit to me, any other aspects that you feel were not addressed, and I can promise you that we will take it into consideration and engage with you further, should there be a need. All reports produced during the assessment process will also be shared for your review and comment.</p> <p>I trust that we can still engage in a fruitful manner to hear and address your comments and concerns.</p>
<p>From: Daniel T Frederick (Manfred Anderson in Copy) Date: 07 October 2025</p>	
<p>Thank you for your consideration and encouraging. I surely would be happy to receive the minutes. I will definitely have input or comments.</p>	<p>Noted</p>

Hand Delivered Letter Received 03 October 2025**!AMAN TRADITIONAL AUTHORITY**

P.O.BOX 135, Bethanie Namibia:

Tel: 264 63 283 059 / 081 630 6921

amanauthority@gmail.com

October 03, 2025

!Aman Traditional Authority

P.O. Box 135
Bethanie, Namibia
03rd October 2025

To: Dr. André Faul
Conservation Ecologist
Geo Pollution Technologies (Pty) Ltd

Subject: Input on the Environmental Impact Assessment Study for the Proposed Port of Lüderitz Robert Harbour Expansion Project

Dear Dr. Faul,

On behalf of the !Aman Traditional Authority, we wish to thank you for the invitation to participate in the Public Consultation Process for the Environmental Impact Assessment (EIA) study of the proposed Port of Lüderitz Robert Harbour Expansion Project. We acknowledge the importance of this process in ensuring that environmental, social, and cultural factors are thoroughly considered.

The !Aman Traditional Authority recognizes the potential benefits of the proposed project, including economic development and job creation. At the same time, we respectfully submit the following input for consideration:

Environmental Concerns:

Protection of **marine biodiversity and coastal ecosystems** during construction and operation.

Measures to mitigate **noise, dust, and water pollution**, which could affect surrounding communities and natural habitats.

Proper **waste management** strategies to prevent contamination of land and water.

Social and Community Considerations:

Potential impacts on **livelihoods of local communities**, particularly those involved in fishing and small-scale commerce.

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Effects on **traffic, safety, and public infrastructure**, which may increase with expanded port operations.

Strategies to ensure that **local communities benefit equitably** from employment and economic opportunities created by the project.

Cultural and Heritage Preservation:

Safeguarding of **historical, archaeological, and underwater heritage sites**, ensuring that no culturally significant areas are adversely affected.

Consultation with Traditional Authorities and local communities regarding **sites of spiritual or cultural importance**.

Recommendations:

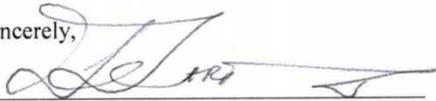
Implementation of robust **monitoring and mitigation plans** throughout the project lifecycle.

Active engagement with the !Aman Traditional Authority and local communities during both construction and operation phases.

Consideration of **project alternatives** that minimize environmental and cultural impacts while maximizing benefits for the local population.

We appreciate the opportunity to provide input and look forward to participating in the upcoming consultation meeting on 03 October 2025 at Turnhalle, Lüderitz.

Thank you for your consideration, and we trust that our concerns will be given due attention in the EIA process.

Yours sincerely,


Mr. Johannes Theofilus Swartz
For and on behalf of the !Aman Traditional Authority



Additional Communication

**THE APPROVAL PETITION FOR
THE !AMAN TRADITIONAL
AUTHORITY FOR THE EXPANSION OF
THE ROBERT HARBOUR IN LÜDERITZ
(!NAMI-#NUS)**

We, the undersigned, respectfully petition NAMPORT for the expansion of the Robert Harbour in LÜDERITZ (!Nami-#Nus). In reference to the engagement held on 08–11 July 2025, the !Aman Traditional Authority witnessed the investigation session carried out on Shark Island. Based on this background, we held clan meetings in Bethanie and Aus where the clan shared the same sentiments with the affected communities and gave us the authorization to approve the expansion of the Robert Harbour in LÜDERITZ (Shark Island).

The !Aman Traditional Authority would like to sincerely apologize if this peaceful demonstration appears as though we do not consider the significance and importance of the foundation of this land and the blood that was shed on this ground.

We stand together with NTTLA and OTA in acknowledging that the matter of the genocide which took place on this ground is not one we take lightly. On the contrary, we honor and respect the sacrifices that were made. The fight for this land during the genocide was a fight for our freedom, our prosperity, and for us as descendants to have land on which we can build a great and prosperous legacy in their honor.

We envision a nation that will make those who died for this cause proud—that they did not die in vain, that all the brutal deaths and murders they endured were not meaningless, but instead gave us the opportunity to live meaningfully on land that honors them.

The !Aman clan, the leaders of our Traditional Authority, and the community at large stand together in writing this petition as direct descendants of those who came before us—those who fought the good fight. We wish to honor this fight by making this soil productive, by unlocking the wealth that is locked up in their bones. The young people and the current generations no longer want to keep these bones silent, but instead ensure that everything

we do honors their hardships and gives glory to God Almighty, who ensured that we were not entirely wiped out, and that those who remained have the privilege to be alive and to continue the rich work entrusted to them. We cannot allow the land to remain idle.

Therefore, it is our mandate and responsibility as the affected descendants of the 1904–1908 Genocide to uplift the communities of LÜDERITZ, Aus, Bethanie, the ||Kharas Region, and Namibia at large. Furthermore, this expansion will create employment, study opportunities for both young and old, and increase the Gross Domestic Product of our economy, while also contributing positively to the international goals of sustainable development.

In conclusion, I wish to emphasize that the **!Aman Clan are the rightful custodians of this jurisdiction**, and as such, any development in this area must be carried out in full consultation with the **!Aman Traditional Authority**. Furthermore, I must underscore that the **NLA** and **OTA** do **not** represent the **!Aman Traditional Authority**, nor do they speak on behalf of, or have the mandate of, the

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affected descendants of the genocide massacre.

As descendants of the 1904–1908 Genocide, our collective desire is that **no one should feel excluded from the Namibian House**.

Recognition, inclusion, and justice must be extended to all, especially those whose histories carry deep scars and who continue to seek dignity and rightful representation.

I thank You

!Aman Traditional Authority backs Namport Lüderitz Port Expansion (Robert Harbour)

APPROVE THE EXPANSION OF ROBERT HARBOUR



DATE	ACTION	PLACE
29 AUG 2025	PETITION HAND-OVER TO INAMI+NUS CONSTITUENCY COUNCIL, HYPHEN ENERGY & NAMPORT	ROBERT HARBOUR (Next to Shark)

We authorise and support the expansion of the current Robert Harbour Port through quay wall expansion and land reclamation for the benefit of //Karas communities, and the whole of Namibia.

!AMAN CLAN MEMBERS

NAME	SURNAME	CONTACT NO	SIGNATURE
1 HENORIK	FREDERIK	0	Privacy Block
2 JOHANNES I.	SWARTZ	0	
3 CHRISTOF	BOOIS	03	
4 Franka	NASSAUB	03	
5 Eiltha	GEORGIS	01	
6 Sanna	BOOIS	0	
7 Rana	WILHELM	0	
8 Ricardo (Koope)	KOOPE	03	
9 Johannes	FREDERICK	03	
10 Christina	FREDERICK	03	
11 Christina	BOOIS	03	
12 JAROBEL	WISSAUB	0	
13 Rachel	FREDERICK	0	
14 Dorothea	FRANCOIS	0	
15 Edna	WILHELM	0	
16 Magdalena	VAN KENT	0	
17 Magdalena	BOOIS	0	
18 KASUNA	BOOIS	0	
19 LÉVIE	JACKIE	0	
20 Dawid	ISAACKS	0	
21 Babakka	HANSE	0	
22 Kavan	FEELIUS	0	
23 Leanne	BECK	0	
24 Sofia	NITSCHKE	0	
25 Sofia	FRANCKE	0	
26 Gert	COETE	0	
27 Anna	MARIEKREDATZ	0	
28 Elizabeth	URIED	0	
29 Anna	M.	0	
30 Maria	ISAACK	0	
31 Josef	M.	0	
32 Maria	MAGBETH	0	
33 Maria	F.F.	0	
34 Hendrina	COETE	0	
35 Eddie	URIES	0	
36 Anas	DEWETS	0	
37 Eupanna	BOOIS	0	
38 Maria	FREDERICK	0	
39 Gudra	NGULUNDUA	0	
40 Ulrica	BETH	0	
41 Hean	SINA	0	
42 Lauta	BOOIS	0	
43 Anna	ISAACK	0	
44 Hulda	FREDERICK	0	
45 Alina	BOOIS	0	
46 Maria	ISAACKS	0	

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 260 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 (Pty) Ltd.
 Name of Staff : ANDRÉ FAUL
 Profession : Environmental Scientist
 Years' Experience : 25
 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: 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 (Environmental Assessment Practitioner)

AREAS OF EXPERTISE:

Knowledge and expertise in:

- ◆ Environmental Impact Assessments
- ◆ Environmental Management Plans
- ◆ Public Participation
- ◆ 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: +260
 Research Reports & Manuals: 5
 Conference Presentations: 1