APP-007054

HARVESTING OF THE WHITE MUSSEL, *DONAX SERRA*, ALONG THE NAMIBIAN COASTLINE, SOUTH OF SANDWICH HARBOUR

ENVIRONMENTAL ASSESSMENT

Assessed by:

Assessed for:

Citygate Trading CC

April 2026

Project:	**Harvesting of the White Mussel, *Donax Serra*, along the Namibian Coastline, South of Sandwich Harbour: Environmental Scoping Assessment**	
Report: Version/Date:	Final April 2026	
Application No.	260217007054	
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Report Approval	 **André Faul** Conservation Ecologist	

I, JOSE FERNANDES, acting as the Proponent's representative (Citygate Trading CC), 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 06 day of MAY 2026

Citygate Trading CC

CC/2014/08514
Company Registration Number

EXECUTIVE SUMMARY

Geo Pollution Technologies (Pty) Ltd (GPT) was appointed by Citygate Trading CC (the Proponent) to conduct an environmental scoping assessment for the harvesting of white mussels (*Donax serra*), the establishment of a temporary tented campsite within the Tsau //Khaeb (Sperrgebiet) National Park, and the ongoing operations of a multi-purpose depuration and processing facility in Lüderitz.

In August 2023, the Proponent obtained a harvesting right in terms of Section 34 of the Marine Resources Act, 2000 (Act No. 27 of 2000) from the Ministry of Fisheries and Marine Resources (now Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR)) to harvest white mussels as a food source for export to international markets. The harvesting right applies to the coastline between Sandwhich Harbour and the Orange River Mouth. The Proponent however decided to focus on a smaller area on the northern-most coastline of the Tsau //Khaeb (Sperrgebiet) National Park, 30 km north of Lüderitz.

To support the harvesting operations, the Proponent intends to establish a temporary tented camp near the harvesting area to accommodate harvesting teams during short operational periods. The camp will consist of modular sleeping tents, a small kitchen area, portable ablution facilities connected to sealed septic tanks, and designated waste storage areas. All solid and liquid waste will be collected and transported to approved disposal facilities in Lüderitz. The camp will be fully self-contained and dismantled once activities conclude, ensuring no permanent footprint remains. Harvesting of mussels will be by hand and no tools will be used. Harvesting will be conducted during low-tide conditions, and collected mussels will be packed in containers for transport to Lüderitz. At the depuration and processing facility, mussels will undergo purification to remove sediments and contaminants before packaging for export. Water used in the depuration process is cleaned seawater. Harvested mussels will be transported to the onshore processing facility at Lüderitz before being exported to international markets.

Due to the nature and location of operations, impacts can be expected on the surrounding environment. It is recommended that environmental performance be monitored regularly to ensure regulatory compliance and that corrective measures be taken if necessary. The project plays a role in providing a much needed contribution to the employment and economy of Lüderitz. The major concerns related to the project are health and safety of workers, ecological impacts and overharvesting of mussels, damage to archaeologically significant sites or artefacts, tourism impacts and potential surface- and ground-water contamination and reduction of water quality. These will however be limited by adherence to permit requirements and the implementation and maintenance of a biosecurity plan and the environmental management plan. The environmental management plan also outlines emergency preparedness procedures, biosecurity protocols, waste handling measures, and environmental monitoring requirements to ensure ongoing compliance with MEFT and MAFWLR permit conditions. The project is expected to contribute positively to the Lüderitz economy through local employment, procurement of goods and services, and the stimulation of small-scale coastal economic activities. By appointing local contractors and employees and implementing educational programmes, the positive socio-economic impacts can be maximised while potential negative effects are minimised.

The environmental management plan should be used as an on-site reference document for the duration of the project. This document and its supporting impact assessment should be reviewed on a regular basis, in order to ensure that it is still relevant to operations. Workers and responsible personnel must be taught the contents of the relevant sections of the environmental management plan. 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 Immune Deficiency Syndrome
BE	Biological/Ecological
BOD	Biological Oxygen Demand
˚C	Degrees Celsius
COD	Chemical Oxygen Demand
DEA	Directorate of Environmental Affairs
DSP	Diarrhetic Shellfish Poisoning
DWA	Department of Water Affairs
EA	Environmental Assessment
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No 7 of 2007
EMP	Environmental Management Plan
EMS	Environmental Management System
EO	Economic/Operational
EPL	Exclusive Prospecting Licence
ES	Environmental Classification
GPT	Geo Pollution Technologies
GRP	Glass Re-enforced plastic
HACCP	Hazard Analysis Critical Control Points
HDPE	High-density Polyethylene
HIV	Human Immunodeficiency Virus
HSE	Health, Safety and Environment
IAPs	Interested and Affected Parties
IBA	Important Bird Area
ISO	International Standards of Operation
IUCN	International Union for Conservation of Nature
kg	Kilogram
km	Kilometre
km/h	Kilometre per hour
kVA	Kilovolt Ampere
m	Metre
m^3	Cubic metre
m/s	Metre per second
mbs	Metres below surface
MAFWLR	Ministry of Agriculture, Fisheries, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MIME	Ministry of Industries, Mines and Energy
ML	Mining Licence
mm	Millimetre
mm/a	Millimetres per annum
MSDS	Material Safety Data Sheet
NaCl	Sodium chloride
NDP	National Development Plan
NIMPA	Namibian Islands' Marine Protected Area
PC	Physical/Chemical
PPE	Personal Protective Equipment
ppm	Parts per million
PSP	Paralytic Shellfish Poisoning
PV	Photovoltaic

SC	Sociological/Cultural
UNFCCC	United Nations Framework Convention on Climate Change
UV	Ultraviolet
WHO	World Health Organization

GLOSSARY OF TERMS

Alternatives - A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The "no-go" alternative constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.

Aquaculture - 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.

Depuration - The process of purifying or cleansing live aquatic organisms, such as shellfish, by holding them in clean, treated seawater for a specified period to allow the natural expulsion of contaminants, sediments, and microorganisms accumulated during harvesting or exposure to polluted environments.

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 Clearance Certificate (ECC) - certificate (and its associated conditions) issued in terms of the environmental management act, authorising a listed activity to be undertaken.

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.

Exploratory Right - A legal authorisation granted by the Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR) that permits the holder to carry out exploratory or trial harvesting of

a marine resource within a defined area and period. It is intended to determine the presence, distribution, and sustainable yield of the resource before commercial harvesting rights may be considered.

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.

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

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

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

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

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

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

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

1 INTRODUCTION

Geo Pollution Technologies (Pty) Ltd (GPT) was appointed by Citygate Trading CC (the Proponent) to conduct an environmental scoping assessment for the harvesting of white mussels (*Donax serra*), the establishment of a temporary tented campsite within the Tsau //Khaeb (Sperrgebiet) National Park, and the ongoing operations of a multi-purpose depuration and processing facility in Lüderitz. In August 2023, the Proponent obtained a harvesting right in terms of Section 34 of the Marine Resources Act, 2000 (Act No. 27 of 2000) from the Ministry of Fisheries and Marine Resources (now Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR)) to harvest white mussels as a food source for export to international markets (Appendix A). The harvesting right applies to the coastline between Sandwhich Harbour and the Orange River Mouth. The Proponent however decided to focus on a smaller area on the northern-most coastline of the Tsau //Khaeb (Sperrgebiet) National Park, 30 km north of Lüderitz. To support the harvesting operations, the Proponent intends to establish a temporary tented camp near the harvesting area to accommodate harvesting teams during short operational periods. The camp will be fully self-contained and dismantled once activities conclude, ensuring no permanent footprint remains.

All harvested mussels will be transported to Lüderitz, where they will be received at the Proponent's multi-purpose seafood depuration and processing facility located within the designated mariculture area. The facility, which is already fully operational, caters not only for white mussels, but also for other marine species handled by the Proponent, including oysters, scallops, and lobsters. The plant incorporates advanced seawater treatment and recirculation systems, including sand and biofiltration, UV sterilisation, ozonation and protein skimming, ensuring hygienic conditions for depuration and processing.

The environmental assessment will be undertaken to determine the potential impact of the project on the environment. The environment being defined in the Environmental Assessment Policy and Environmental Management Act (EMA) as "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values". The assessment will be used to apply for an environmental clearance certificate (ECC) from the Ministry of Environment, Forestry and Tourism (MEFT).

Project Justification – Namibia's commitment to sustainably maximising economic benefits from marine resources remains a cornerstone of national development planning. While the "Fishery Strategies and Desired Outcomes, 2017–2022" under National Development Plan 5 (NDP5) emphasised sustainable utilisation, this focus is reaffirmed and expanded in the Sixth National Development Plan (NDP6), which prioritises inclusive and resilient economic growth through the consolidation of existing sectors and the development of new sources of employment and income.

Under NDP6, the fisheries sector is explicitly recognised as a key contributor to economic transformation, with strategic goals that include enhancing value addition, expanding aquaculture and mariculture, and ensuring equitable distribution of benefits across communities. The MAFWLR has introduced performance scorecards and is reviewing quota systems to promote broader participation and reduce exploitation of vulnerable groups. These reforms signal a policy environment conducive to responsible expansion of underutilised marine resources.

White mussels, currently harvested only for recreational purposes, represent a potentially valuable and underexploited resource. Their commercial harvesting (if managed sustainably) could support multiple national objectives:

- Job creation, particularly in coastal communities with limited formal employment opportunities.
- Foreign exchange earnings, given Namibia's strong export orientation in fisheries and the global demand for niche seafood products.
- Positive trade balance, through diversification of marine exports and reduced reliance on imported seafood.

- Empowerment of marginalised groups, in line with NDP6's emphasis on inclusive growth and community-level benefit sharing.

Furthermore, this initiative aligns with Vision 2030's goal of increasing sustainable yields from fisheries and marine resources to support economic development and improve livelihoods. It also complements Namibia's broader environmental sustainability agenda, which underpins NDP6's thematic focus areas.

The proposed commercial harvesting of white mussels is not only environmentally feasible but also strategically aligned with Namibia's current development priorities. It offers a practical pathway to unlock new economic value from marine ecosystems while reinforcing national goals of sustainability, inclusiveness, and resilience.

2 SCOPE

The aims and objectives of this report are to:

1. Determine the potential environmental impacts emanating from the proposed harvesting of white mussels and the operations of the processing plant.
2. Identify a range of management actions which could mitigate the potential adverse impacts to acceptable levels.
3. Provide additional surety to relevant stakeholders that environmental parameters are adequately monitored and managed.
4. Provide sufficient information to MAFWLR and Ministry of Environment, Forestry and Tourism (MEFT) to make an informed decision regarding the proposed project.

3 METHODOLOGY

The following methods were used to determine the potential impacts on the social and natural environment due to the proposed project:

1. Baseline information was obtained using existing secondary information.
2. As part of the environmental assessment, interested and affected parties (IAPs) are consulted about their views, comments and opinions and these are put forward in this report.

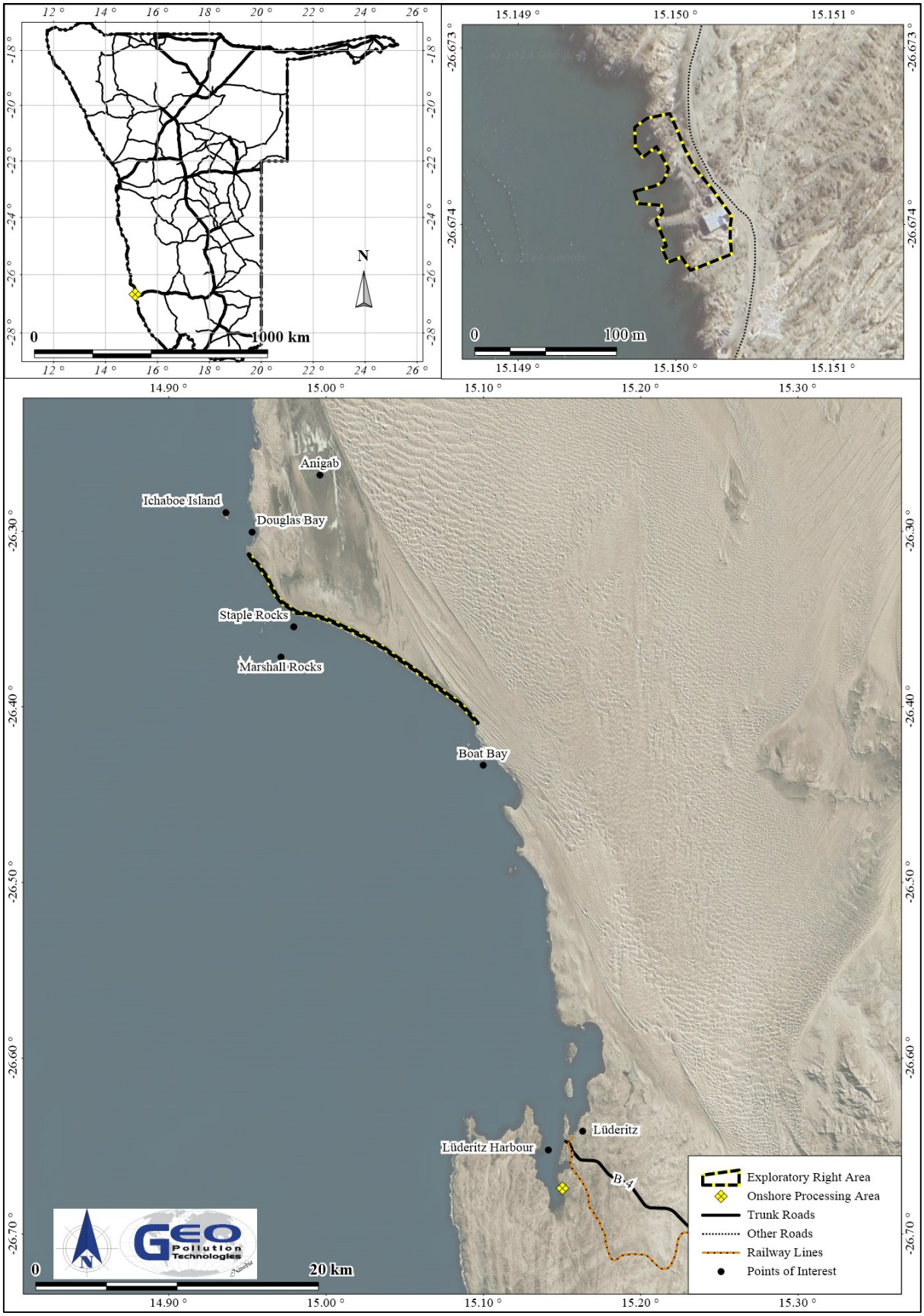

Figure 3-1 Exploratory right area and location of onshore processing facility south of Lüderitz

4 PROJECT DESCRIPTION

The Proponent has been operating in Namibia since 2005 and their business activities include fish processing, culturing of oysters and catching of crayfish. Operating in Walvis Bay and Lüderitz, they have established themselves as a long term role player in the marine resources industry and provides secure employment to a local workforce.

In order to diversify their business, the Proponent applied for an exploration right from the MAFWLR for white mussels along the Namibian coast. The exploration right was subsequently granted with a set of conditions the Proponent has to adhere to (Appendix A). The following sections provide a description of the general biology of the white mussel and of the Proponent's intended project, against a backdrop of similar international ventures.

4.1 *DONAX SERRA*- WHITE MUSSEL

The genus *Donax* comprises of edible bivalve molluscs or marine clams in the family Donacidae. Species in this genus occur worldwide in dynamic environments (high energy beaches) of tropical and temperate coastlines (Ansell, 1983). Worldwide, *Donax* is referred to by various names including coquina, bean or wedge clam, coorong cockle, ugari, pipi, and in Namibia as mussels. *Donax serra*, a south-western African endemic, inhabits sandy beaches of two biogeographical regions, the cold Benguella and warm Agulhas currents (Laudien et al., 2002). Its range is from the Kunene River in northern Namibia to the Eastern Cape of South Africa. Locally it is commonly known as the white mussel or by some as the surf or wedge clam.

White mussels are filter feeders and their diet consists of phytoplankton and detritus which is filtered from the water. In turn, white mussels are preyed upon by birds, fish and crustaceans. White mussels have been described in literature as being restricted to the intertidal zone on the southeast coast of South Africa and north of Henties Bay, while those from the Western Cape of South Africa up to Henties Bay are found in both the intertidal and shallow subtidal habitats (Donn & Cockroft 1989). For the latter populations, those in the intertidal zone are generally smaller (<50 mm shell length) while those in the subtidal zone are generally larger (>50 mm).

In terms of biomass, white mussels are the most abundant macro-faunal species where they occur on sandy beaches (Donn & Cockroft 1989). White mussels at beaches between Walvis Bay and Swakopmund and around Henties Bay may have a lower abundance due to decades long harvesting for recreational fishing. This being further impacted by illegal harvesting and sale of, very often undersized (<38 mm) white mussels to fisherman, as is often seen along roads in Henties Bay and in the area of the Zeila shipwreck. Beaches south of Sandwich harbour have not seen such harvesting and is likely to show very high abundance. However, no published scientific information seems to be available on the distribution, abundance and zonation of white mussels south of Paaltjies at Walvis Bay.

4.2 WHITE MUSSEL HARVESTING

The exploratory right with conditions for white mussel harvesting is attached in Appendix A. While it is an exploratory right to determine sustainability and harvesting locations, it also allows for the actual harvesting of the mussels. Upon expiry of the exploration right, MAFWLR will decide whether an actual right may be allowed or not. This is in accordance with the Marine Resources Act (see Table 6-1).

4.2.1 Targeted Areas

The harvesting right issued to the Proponent covers about 650 km of coastline, however the Proponent intends to target only a defined section of coastline of about 20 km within the Tsau //Khaeb National Park, north of Boat Bay and Lüderitz. The area extends from approximately 26.3131°S, 14.9508°E to 26.4080°S, 15.0961°E. The exact harvesting area will be confirmed, mapped, and reported to the Ministry to ensure that harvesting remains within the approved area and that sustainability and environmental compliance are maintained.

4.2.2 Access

Access to harvesting sites will be by four-wheel drive vehicles carrying, among others, workers, food, water, tents, baggage, mobile toilet and containers for harvested mussels. Access permits will be obtained from all relevant authorities including the Ministry of Industries, Mines and Energy (MIME) and mining companies who have mining rights over this area. Two alternative access routes can be used. The first is from the B6 main road, near the Lüderitz Airport, and the second is from Agate Beach (Figure 4-1). Both these routes are existing tracks which is also indicated on navigational maps such as Tracks4Africa. For most of the routes the existing tracks are clearly visible. It is only in the sand dune areas where tracks are quickly covered by sand during strong wind conditions. Once at the mussel harvesting area, vehicles will stay between the vegetated areas and the beach or on existing tracks to minimise impacts.

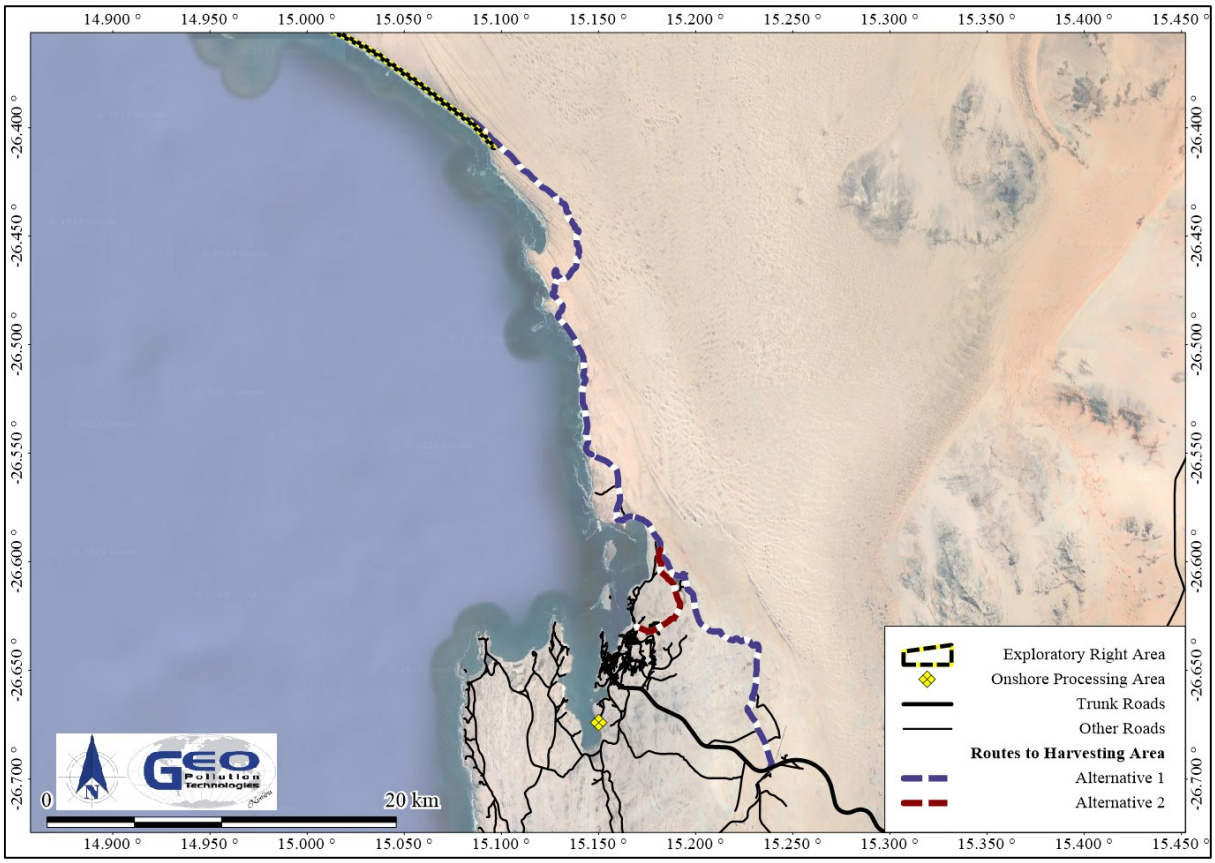

Figure 4-1 Access routes to mussel harvesting area

Photo 4-1 Tracks through the sand dune to access harvesting area

Photo 4-2 White mussel harvesting area

4.2.3 Harvesting Method

White mussels will be harvested by hand by teams of about 20 (Photo 4-3 and Photo 4-4). No tools will be used. Since mainly smaller mussels occur in the intertidal zone and larger mussels occur in the subtidal zone, the subtidal zone will be targeted. Obvious undersized mussels will be returned and the bigger ones placed in a bag carried on the harvester. Once the bag is full, the mussels will be properly sized and undersized ones returned. Mussels will be kept alive by placing them in mesh bags in the water until departure for Lüderitz.

Photo 4-3 Preparation on the beach before harvesting

Photo 4-4 Harvesting in progress

4.2.4 Duration of Stay and Amenities

To reduce the number of trips to and from the site, a campsite at the harvesting area is planned. It will be a tented camp with portable toilets, showers and a kitchen tent. The camp will be occupied during times of mussel harvesting. Freshwater will be transported from Lüderitz to the camp. To protect the camp against the wind it is planned in-between some of the hummocks just off the beach (Figure 4-2).

The camp will be fully self-contained and designed to minimise any environmental footprint. All water, food supplies, and fuel will be brought in from Lüderitz, and all waste (including grey water and the contents of portable toilets) will be contained and transported back to Lüderitz for disposal at approved facilities.

The camp will be completely dismantled once mussel harvesting activities in the area are no longer undertaken. No permanent structures, infrastructure or waste will be left behind, and the campsite area will be inspected and cleaned to ensure the environment remains undisturbed.

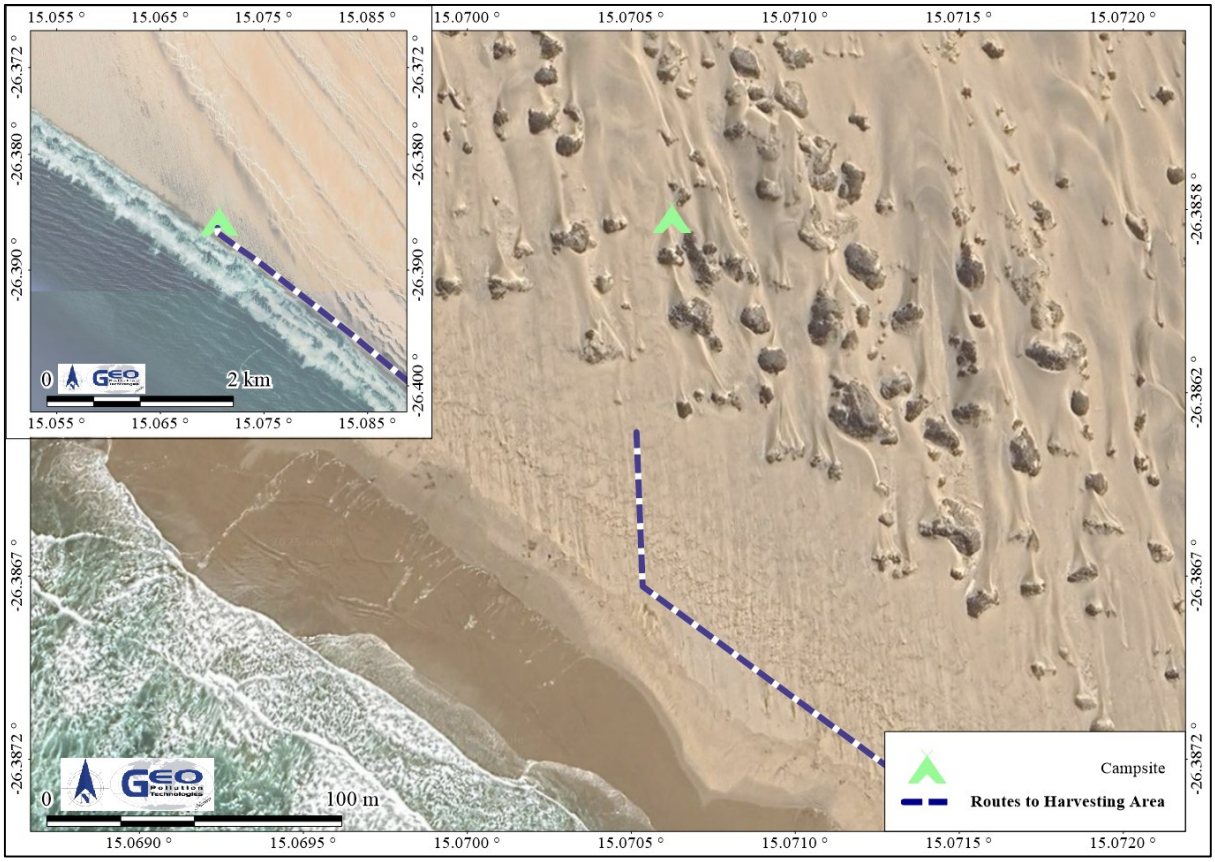

Figure 4-2 Proposed location for the temporary campsite

4.3 PROCESSING PLANT

The Proponent has constructed a multi-purpose seafood depuration and processing facility on their property in Lüderitz (Photo 4-5). The facility caters not only for white mussels, but also serves as a processing and export centre for a variety of other marine products handled by the Proponent, including oysters, scallops, and lobsters. The facility has been designed and equipped to comply with recognised hygiene and export standards, allowing for the efficient handling, purification, and packaging of live and chilled seafood products.

Photo 4-5 Processing plant from the outside

Photo 4-6 Interior of the processing plant

Photo 4-7 Holding tanks at the processing plant

Photo 4-8 Holding tanks

The plant consists of several independent holding and depuration systems in which live molluscs are placed for purification prior to export. Each tank is fitted with a closed-loop seawater recirculation system, supported by sand filters (Photo 4-9), biofilters, UV sterilisation (Photo 4-10), ozone treatment, refrigeration, and oxygenation systems. The facility uses approximately 20 m³ of seawater per day, with around 5–10% of the total tank volume replenished daily to maintain optimal water quality. The depuration process ensures that shellfish are free from sand, bacteria, and other impurities by circulating clean, filtered seawater through the tanks until the animals have naturally purged themselves.

Photo 4-9 Sand filters used for water filtration

Photo 4-10 Ultraviolet disinfection unit installed in the water supply line

The facility also functions as a lobster processing plant, where live lobsters are received, held in chilled seawater, and prepared for export in accordance with veterinary and export regulations. All tank systems are isolated from one another, each with its own pump and recirculation setup to prevent cross-contamination between species or batches. Dead animals are removed from tanks twice daily, and the facility's hygiene and product safety are routinely verified through laboratory testing by accredited institutions.

Seawater used in the facility is discharged back to the sea after use. The discharged water has an elevated organic load as a result of the depuration of the animals. Sanitary wastewater from ablution facilities is directed to two 5,000-litre septic tanks, which are emptied weekly by a licensed contractor and disposed of at the Lüderitz Town Council's wastewater treatment facility. The Proponent is in the process of applying for the required abstraction and discharge permits under the Water Resources Management Act.

Photo 4-11 Seawater abstraction point

Photo 4-12 Seawater discharge point

The facility is also equipped with a blast freezer, chillers, and cold storage areas, as well as administrative offices, ablution facilities, staff lockers, and storage rooms. Both oysters and mussels are exported alive, packed into polystyrene boxes with ice to maintain temperature and product vitality during transport. Products are dispatched by road to Hosea Kutako International Airport for export to markets including Hong Kong, China and Russia.

4.4 General Information

The Proponent intends to employ approximately 50 workers at the processing plant with an additional 20 on the harvesting team. Samples of molluscs will undergo testing for heavy metals, biotoxins, paralytic shellfish poisoning (PSP), diarrhetic shellfish poisoning (DSP) and *Escherichia coli* once every 15 days.

5 ALTERNATIVES

Due to the defined scope of the project, the pre-determined harvesting area authorised under the harvesting right issued by MAFWLR, and the existing operational seafood depuration and processing facility in Lüderitz, no alternative locations or methods were considered applicable or feasible. The use of manual hand-harvesting techniques ensures minimal environmental disturbance and is considered the most appropriate and sustainable approach. The proposed project configuration is therefore regarded as the most suitable option to achieve the intended operational and environmental objectives.

The no-go option will see no environmental impacts, but will negate all positive spinoffs of the project.

6 ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programmes and policies deemed to have adverse impacts on the environment require an environmental assessment, as per the Namibian legislation. The legislation and standards provided in Table 6-1 to Table 6-2 govern the environmental assessment process in Namibia and/or are relevant to the Project.

Table 6-1 Namibian law applicable of specific interest

Law	Key Aspects
The Namibian Constitution	♦ Promote the welfare of people. ♦ Incorporates a high level of environmental protection. ♦ Incorporates international agreements as part of Namibian law.

Law	Key Aspects
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	♦ Defines the environment. ♦ Promote sustainable management of the environment and the use of natural resources. ♦ Provide a process of assessment and control of activities with possible significant effects on the environment.
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	♦ Commencement of the Environmental Management Act. ♦ List activities that requires an ECC. ♦ Provide Environmental Impact Assessment Regulations.
Marine Resources Act Act No. 27 of 2000, Government Notice No. 292 of 2000	♦ Prevents the discharge of anything that may be injurious to marine resources or may disturb ecological balance in any area of the sea or which may detrimentally affect the marketability of marine resources, or which may hinder their harvesting. ♦ Regulates the conservation of marine resources and ecosystems. ♦ Regulates the protection of the Namibian Islands' Marine Protected Area.
Regulations Relating to Namibian Islands' Marine Protected Area: Marine Resources Act, 2000 Government Notice No. 316 of 2012	♦ Delineates the Namibian Islands' Marine Protected Area. ♦ Zones the Namibian Islands' Marine Protected Area into an all-encompassing buffer zone further divided into four zones of increasing protection status as islands and shorelines are approached. ♦ Declares that a person may not land on or access any island, islet or rock in the Namibian Islands' Marine Protected Area unless the person is in possession of a valid permit obtained from the regional office of the Ministry of Fisheries and Marine Resources in Lüderitz. ♦ Provides for the option of mariculture, and specifically ranching, within the Namibian Islands' Marine Protected Area, under specific conditions.
Aquaculture Act Act No. 18 of 2002	♦ Regulates aquaculture activities to ensure sustainable development. ♦ Provides for water quality monitoring to protect aquaculture activities.
Aquaculture (Licensing) Regulations: Aquaculture Act, 2002 Government Notice No. 246 of 2003	♦ Provides regulations dealing with licensing, record keeping and reporting, health management, disease control and protection of the aquatic environment in so far as aquaculture facilities are concerned.
Regulations Relating to Import and Export of Aquatic Organisms and Aquaculture Products: Aquaculture Act, 2002 Government Notice No. 71 of 2010	♦ Provides regulations dealing with the import, export, quarantine and inspection of aquatic organisms and aquaculture products.

Law	Key Aspects
Nature Conservation Ordinance 4 of 1975	♦ To consolidate and amend the laws relating to the conservation of nature; the establishment of game parks and nature reserves; the control of problem animals; and to provide for matters incidental thereto. ♦ Provides for granting of concessions authorising other persons to conduct tourism or activities related to the sustainable commercial use of wildlife resources. ♦ Controls the right to enter game parks and nature reserves and prohibits certain acts therein. ♦ Lists prohibited activities and items in game parks and nature reserves.
Water Resources Management Act Act No. 11 of 2013	♦ Provide for management, protection, development, use and conservation of water resources. ♦ Prevention of water pollution and assignment of liability. ♦ Defines the interests of the state in protecting water resources. ♦ Controls the disposal of effluent.
Animal Health Act Act No. 1 of 2011	♦ Provide for the prevention, detection and control of animal disease. ♦ Provide for the maintenance and improvement of animal health. ♦ Regulates the importation and exportation of animals, animal products and restricted material into Namibia.
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	♦ Define the powers, duties and functions of local authority councils. ♦ Regulates discharges into sewers.
National Heritage Act Act No. 27 of 2004, Government Notice No. 287 of 2004	♦ Provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. ♦ Defines as protected any remains of human habitation or occupation that are 50 or more years old found on or beneath the surface on land. ♦ Provides for reporting of heritage finds, issuing of permits, and archaeological impact assessments.
Diamond Act **Act No. 13 of 1999,** Government Notice No. 287 of 2004	♦ Provide for control measures in respect of the possession, the purchase and sale, the processing and the import and export of diamonds. ♦ Control measures in relation to possession, sale, receipt, etc. of unpolished diamonds.
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	♦ Provides a framework for a structured more uniform public and environmental health system, and for incidental matters. ♦ Deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation.

Law	Key Aspects
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	♦ Provides for Labour Law and the protection and safety of employees. Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997).
Hazardous Substances Ordinance Ordinance No. 14 of 1974	♦ Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export. ♦ Aims to prevent hazardous substances from causing injury, ill-health or the death of human beings.
Pollution Control and Waste Management Bill (draft document)	♦ Not in force yet. ♦ Provides for prevention and control of pollution and waste. ♦ Provides for procedures to be followed for licence applications.
Prevention and Combating of Pollution of the Sea by Oil Amendment Act (No. 24 of 1991)	♦ Amends the Prevention and Combating of Pollution of the Sea by Oil Act of 1981 to be more relevant to Namibia after independence.

Table 6-2 Relevant multilateral environmental agreements for Namibia

Agreement	Key Aspects
Stockholm Declaration on the Human Environment, Stockholm 1972	♦ Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.
United Nations Framework Convention on Climate Change (UNFCCC)	♦ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention.
Convention on Biological Diversity, Rio de Janeiro, 1992	♦ Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity.
Benguela Current Convention of 2013	♦ 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 Current Large Marine Ecosystem, to provide economic, environmental and social benefits.
Abidjan Convention of 1981	♦ 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.
National Marine Pollution Contingency Plan of 2017	♦ Coordinated and integrated national system for dealing with oil spills in Namibian waters.

6.1 THE ENVIRONMENTAL MANAGEMENT ACT

The actual harvesting of mussels is not a listed activity requiring environmental clearance under the EMA. An EIA and EMP are however prepared to include the harvesting as a pro-active approach to identify and address potential impacts that may result from the project. The onshore processing plant at Lüderitz does trigger some of the listed activities requiring an ECC as per the

following points from Section 2, 7, 8 and 10 of Government Notice No. 29 of 2012 of the Environmental Management Act:

- "2.1 The construction of facilities for waste sites, treatments of waste and disposal of waste." – The Proponent will dispose brine from a desalination plant into the ocean.
- "7.1 - Construction of facilities for aquaculture production, including mariculture and algae farms where the structures are not situated within an aquaculture development zone declared in terms of the Aquaculture Act, 2002." – Although not a facility for aquaculture production, the Proponent operates a land-based seafood depuration and processing facility in Lüderitz.
- "8.1 The abstraction of ground or surface water for industrial or commercial purposes." – The Proponent abstract seawater.
- 10.1 (e) "The construction of any structure below the high water mark of the sea." The Proponent has existing, and plan new, subsea water abstraction points.

7 ENVIRONMENTAL CHARACTERISTICS

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

7.1 LOCALITY AND SURROUNDING LAND USE

The existing onshore facility is located within an area of the Lüderitz Townlands set aside for mariculture and related activities (26.673645 S, 15.149913°3 E) (Figure 7-1). The property is surrounded by undeveloped land and to the west by the Lüderitz Harbour (Second Lagoon). The only nearby built infrastructure is the mariculture facility of Five Roses Aquaculture, 125 m to the south.

Harvesting takes place within a predetermined section of coastline in the Tsau //Khaeb (Sperrgebiet) National Park, north of Boat Bay, as authorised under the harvesting right issued to the Proponent. The designated harvesting area extends from approximately 26.3131 °S, 14.9508 °E to 26.4080 °S, 15.0961 °E, covering part of the approved coastal stretch defined in the permit. (Figure 7-1).

Lüderitz is surrounded by various proclaimed mineral rights areas. The onshore facility is not located in any such areas, but the mussel harvesting area, and access route thereto, falls within mining licence (ML) area 46 (Figure 7-3).

Implications and Impacts

Land use rights and zoning must be ascertained with the relevant authorities for all expansion areas. No significant land use impact is expected on nearby establishments. Harvesting of mussels by hand and a temporary campsite at the harvesting area should not have a significant impact on the surrounding area.

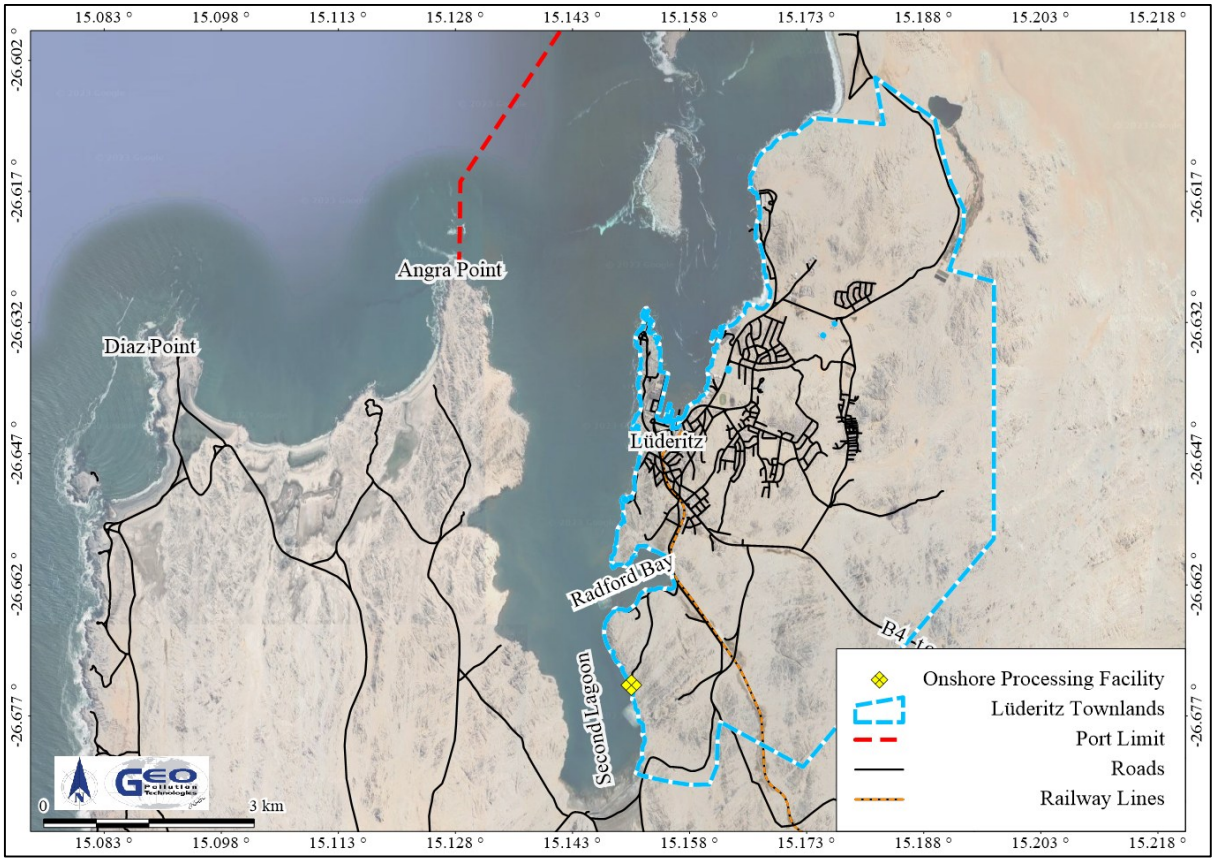

Figure 7-1 Processing plant location within the Lüderitz Townlands

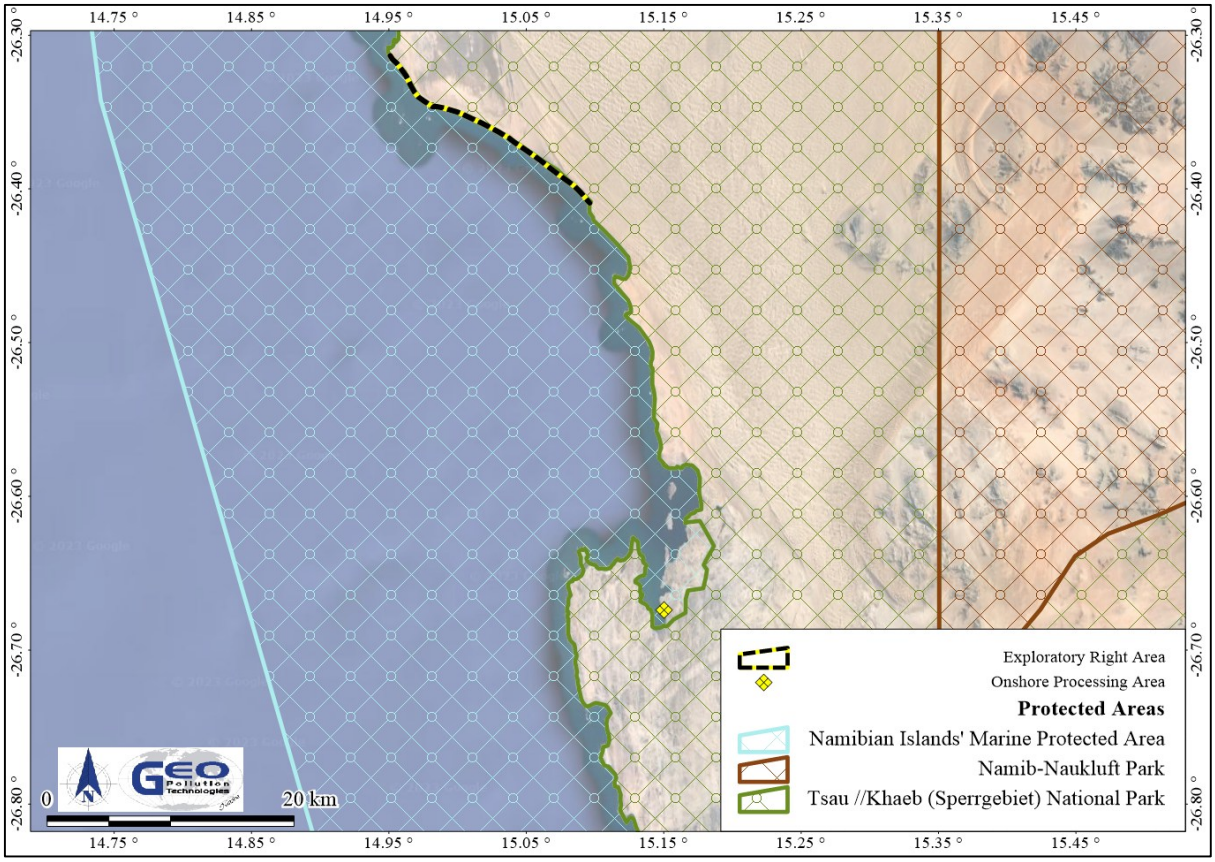

Figure 7-2 National parks and protected areas

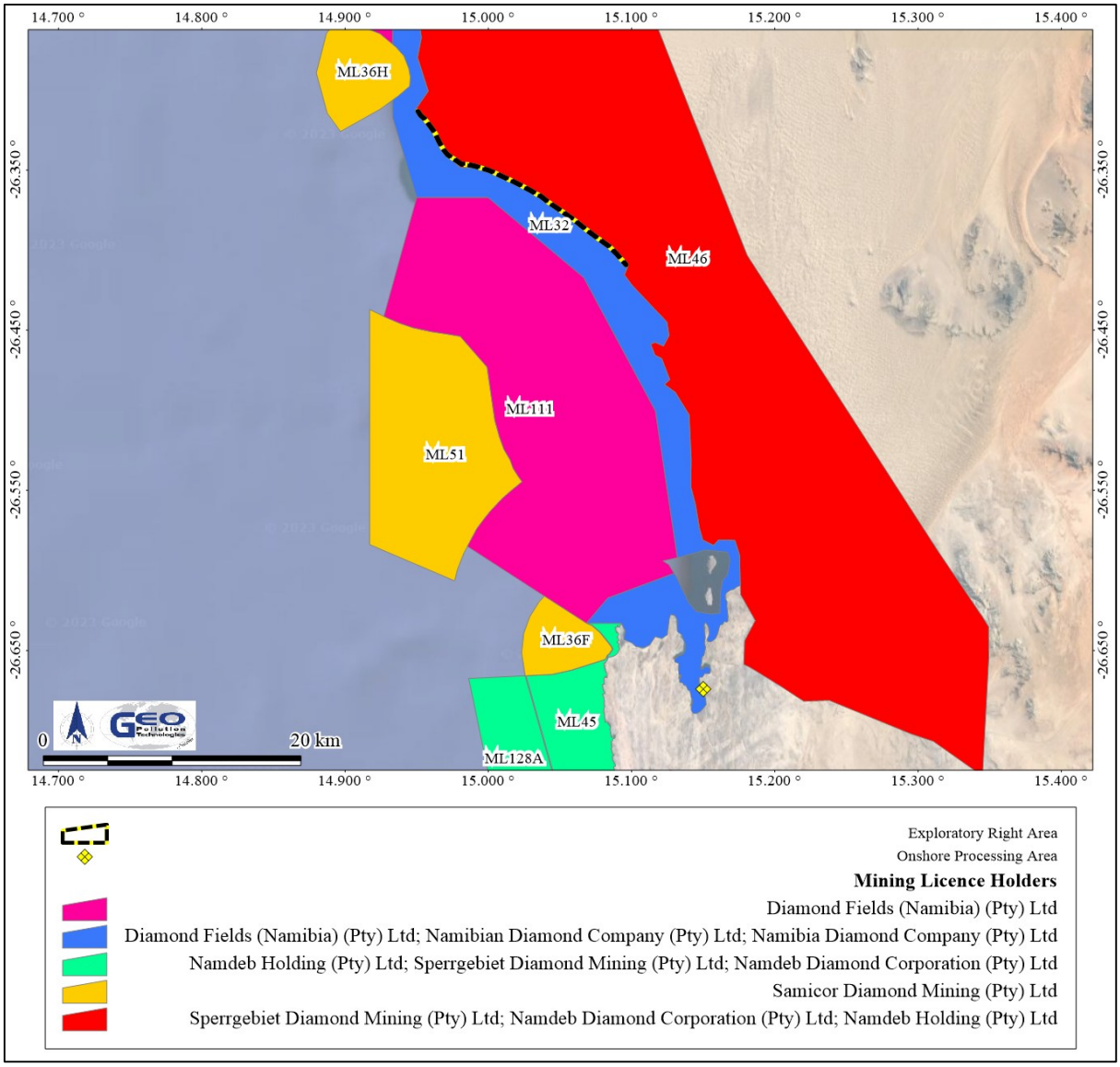

Figure 7-3 Mineral rights holders

7.2 CLIMATE

Lüderitz is located on the Namibian coastline in the arid Namib Desert. The arid conditions are as a result of dry descending air and upwelling of the cold Benguela Current. As a result, thick fog or low stratus clouds are a regular occurrence in Lüderitz. This is due to the influence of the Benguela Current and forms a major source of water for the flora in the Namib Desert.

Namibia is situated within an anti-cyclone belt of the southern hemisphere. Winds generated from the high-pressure cell over the Atlantic Ocean blow from a southerly direction when they reach the Namibian coastline. As the Namibian interior is warm (particularly in summer), localised low-pressure systems are created which draws the cold southerly winds towards the inland desert areas. 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. Figure 7-4 presents wind data of the Lüderitz airport. Although conditions over the ocean will be somewhat different, it does present a general idea of the expected wind conditions. 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. Such winds also tend to transport plenty of sand. Table 7-1 presents a summary of climate conditions in the Lüderitz area. Rainfall is typically limited with

an average of less than 50 mm per annum. However, occasional heavy rainfall do occur and this can result in rainfall of more than 100 mm in a short time.

Implications and Impacts

Strong winds may lead to rough seas with safety risks for the crew harvesting the white mussels when there are large swells. This will also present increased safety risks to divers and may cause damage to infrastructure such as water abstraction equipment. Strong winds can cause excessive airborne dust which can cause health impacts or cause damage to onshore infrastructure.

Table 7-1 Summary of climate data (Atlas of Namibia Project, 2002)

Average annual rainfall (mm/a)	0-50 mm; half of the rainfall occurs from May to June
Variation in annual rainfall (%)	80 – 90%
Average annual evaporation (mm/a)	2,400-2,600
Water deficit (mm/a)	1,701-1,900
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 Average annual >16 °C
Fog	Approximately 126.7 days of fog per year
Wind	Prevailing wind strong south-westerly

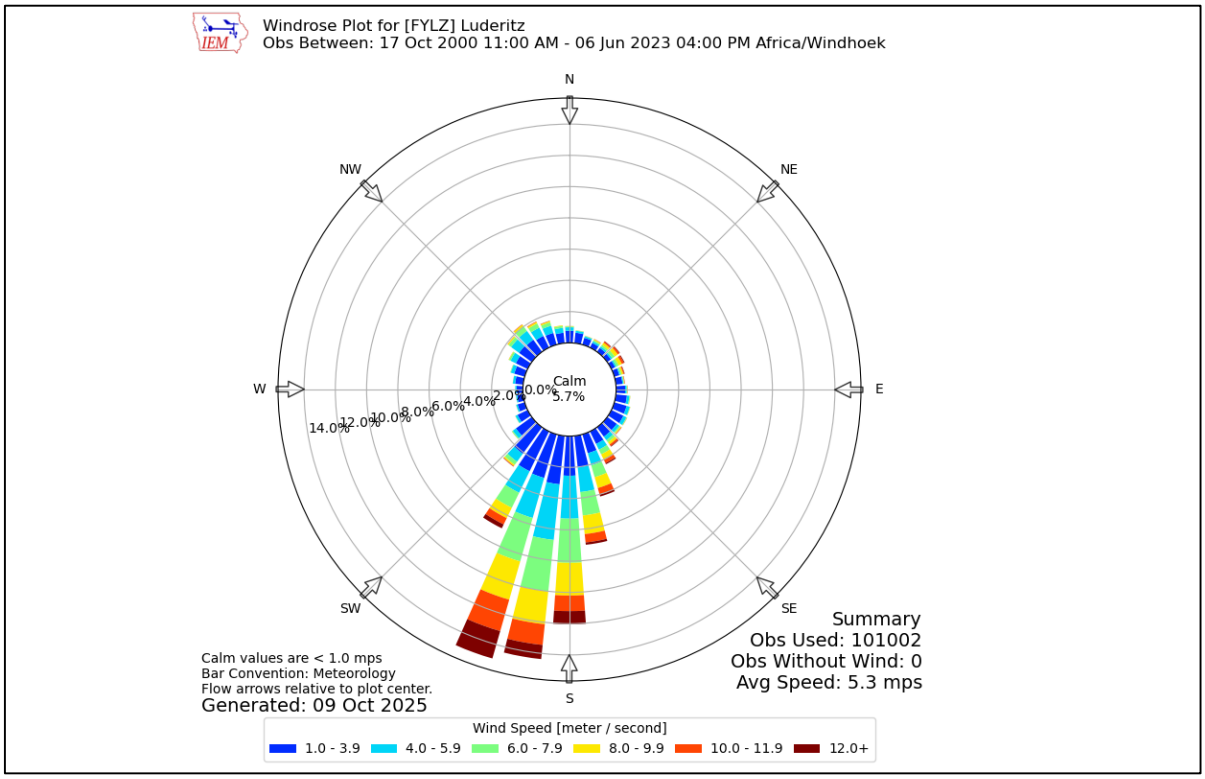

Figure 7-4 Windrose for Lüderitz Airport

7.3 CORROSIVE ENVIRONMENT

The corrosive environment of Lüderitz can be closely related to that of Walvis Bay. The corrosive environment may be attributed to the frequent salt-laden fog, periodic winds and abundance of aggressive salts (dominantly NaCl and sulphates) in the soil. The periodic release of hydrogen

sulphide (H_2S) from the ocean is expected to contribute to corrosion (see Table 7-2 for corrosion comparison data of Walvis Bay with other centres).

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.

Implications and Impacts

Corrosion levels may be high and must be kept in mind when planning the maintenance of the facility and related infrastructure. High levels of corrosion may lead to infrastructure components' failure and potential related pollution risks.

Table 7-2 Average annual corrosion rate for various metals in different locations in southern Africa (from Nickel Development Institute: Stainless Steels in Architecture, Building and Construction. http://www.nickelinstitute.org)

	Pretoria CSIR	**Durban Bay**	**Cape Town Docks**	**Durban Bluff**	**Walvis Bay**	**Sasolburg**
Environment						
Location Type	Rural, Very Low Pollution	Marine, Moderate Pollution	Marine, Moderate Pollution	Severe Marine, Moderate or Low Pollution	Severe Marine, Low Pollution	Industrial High Pollution
SO_2 Range µg/m^3	6-20	10-55	19-39	10-47	NA	NA
Fog Days/year	NA	NA	NA	NA	113.2	NA
Average. Rainfall (mm/year)	146	1,018	508	1,018	8	677
Relative Humidity Range %	26-76	54-84	52-90	54-84	69-96	49-74
Temp. Range °C	6-26	16-27	9-25	16-27	10-20	5-20
Unpainted Galvanized Steel Life, Years	5-15	3-5	3-7	3-5	0.6-2	5.-15
	Annual Corrosion Rate (mm/year)					
Stainless Steel						
Type 316	0.000025	0.000025	0.000025	0.000279	0.000102	NA
Type 304	0.000025	0.000076	0.000127	0.000406	0.000102	NA
Type 430	0.000025	0.000406	0.000381	0.001727	0.000559	0.000107
Aluminium Alloys						
AA 93103	0.00028	0.00546	0.00424	0.01946	0.00457	0.00281
AA 95251	0.00033	0.00353	0.00371	0.01676	0.00417	NA
AA 96063	0.0028	0.00315	0.00366	0.020	0.00495	NA
AA 96082	0.00033	0.00366	0.0034	0.02761	0.00587	NA
AA 85151	NA	NA	NA	0.0246	0.00375	0.00317
Copper	0.00559	0.0094	0.00711	0.0246	0.0384	0.014
Zinc	0.0033	0.0231	0.029	0.111	NA	0.0152
Weathering Steel	0.0229	0.212	0.0914	0.810	1.150	0.107
Mild Steel	0.0432	0.371	0.257	2.190	0.846	0.150

7.4 TOPOGRAPHY AND DRAINAGE

The terrain around Lüderitz consist of a number of rocky outcrops with islands and peninsulas and is located next to the Atlantic Ocean. The onshore processing plant occurs on a rocky area

on the coast of the Atlantic Ocean, next to what is known as Lüderitz Harbour. The rocky coastline is also present on all of the islands forming part of the Lüderitz Bay island complex (comprising four islands). These islands may be regarded as barrier islands which protects Agate Beach (north of the project area), Robert Harbour, and the Port of Lüderitz (south of the project area). The area between the islands and the mainland has a shallow basin.

Surface drainage is poorly developed in the area due to the minimal amount of precipitation that occurs. The current project footprint has mostly been levelled to allow for construction and operations with a slight gradient towards the west. Surface drainage varies greatly around the facility, but in general would be towards the west into the Atlantic Ocean.

The area for mussel harvesting is a sandy beach with isolated rocky outcrops. The southern part has the Namib Sand Sea to the east while the northern areas are next to coastal plains interspersed with rocky outcrops which is followed by a low lying area forming a salt pan.

Any rain in the sand sea will very quickly drain into the soil, while surface-runoff will flow either to the ocean or into the salt pan in the northern project area.

Implications and Impacts

Any pollutants that are not contained and are transported via surface water flow will be transported out of the site and towards the ocean.

The coastline is impacted by open ocean wave action and deposition and erosion processes associated with longshore drift. Dynamic shoreline processes are prevalent along sandy shores.

7.5 GEOLOGY AND HYDROGEOLOGY

The project area falls within the Richtersveld Subprovince of the Namaqua-Natal Mobile belt, a Paleoproterozoic volcanic arc terrane that underwent reworking during the Pan-African orogeny. Tectonic activity includes ancient arc magmatism and Neoproterozoic crustal reactivation.

The area around Lüderitz is dominated by a desert with dunes and crystalline rock outcrops (Figure 7-5). This includes geology from the Mokolian and the Namibian age, with more recent Quaternary age surface cover. 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 subsurface geology at the processing facility and at the harvesting area consist of rocks from the Mokolian Age. This includes gneiss and granites of the Namaqua Metamorphic Complex. The gneiss is mainly of pre- to syntectonic biotite-rich augen gneiss. At the harvesting area, Quaternary deposits are present on these rock formations. The Anichab Pan is one of the few areas that contain Quaternary records of sea-level and palaeoenvironmental change along the western margin of southern Africa (Compton, 2007). The pan has a well-preserved and in-place mid-Holocene mollusc assemblage, which is also of scientific importance.

The local and regional geology was 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 the processing facility, but shallow, relatively fresh groundwater is present to the northeast of the harvesting area (Figure 7-5). The area to the northeast of the harvest area is considered as the lower part of the Khoichab River Palaeochannel. This palaeochannel is exploited approximately 90 km to the east for the supply of water for Lüderitz.

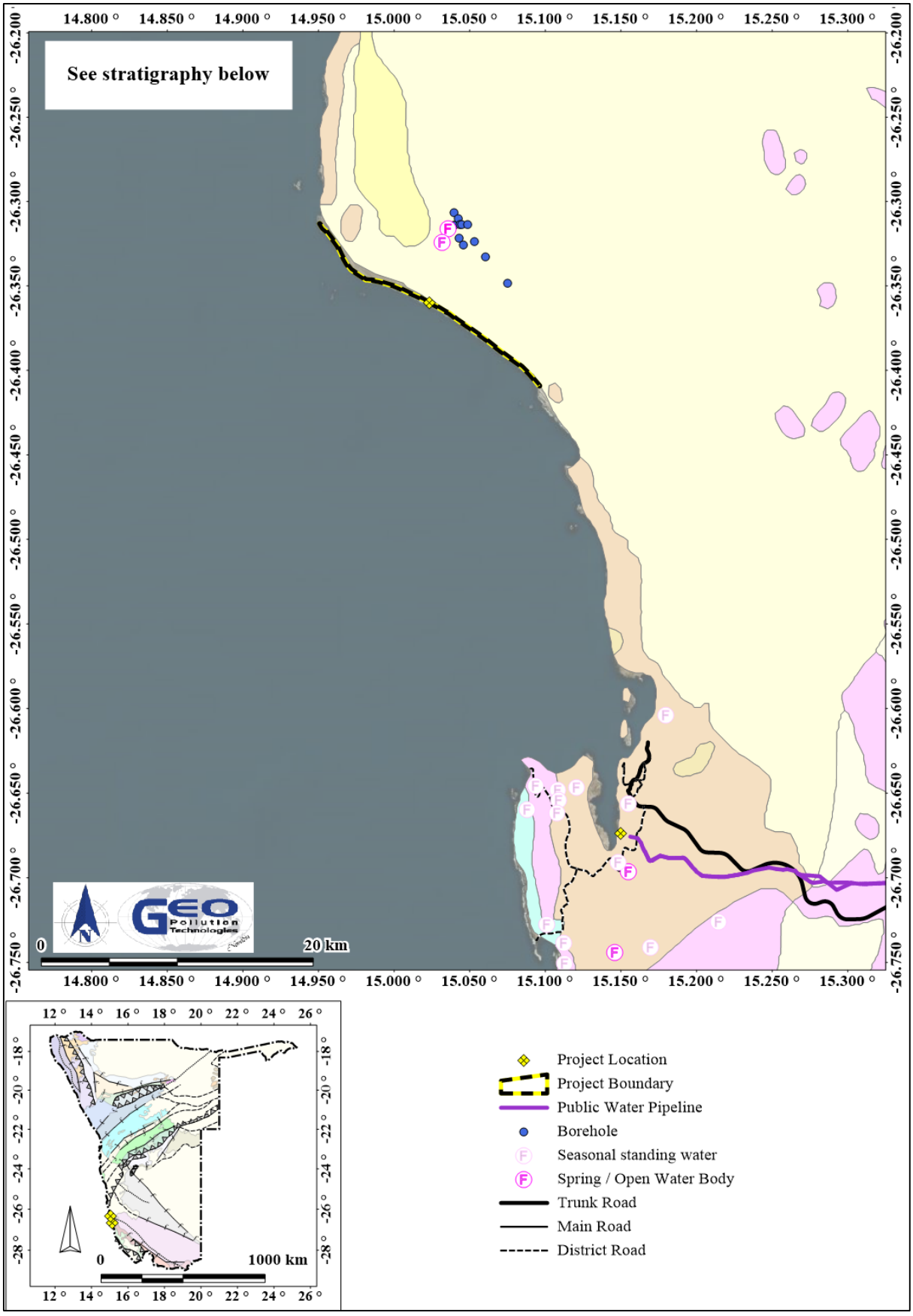

Figure 7-5 Geology map

Table 7-3 Stratigraphy

Age	Lithcode	Formation	Complex	Rocktypes
Quaternary	Qsp			Coastal salt pan
	Qn			Sand sea of the Namib Desert
Namibian	Ng	Guperas	Gariep	Dolomite, shale, schist, greenschist, ortho-/para-amphibolite, quartzite, intraformational and basal mixtite, grit
Mokolian	Mgw		Namaqua	Syn- to post-tectonic gneissic granite, granite, pegmatite
	Mgb		Namaqua	Pre- to syntectonic biotite-rich augen gneiss
	Mn	Dwyka	Namaqua	Undifferentiated metamorphic/intrusive rocks of the Namaqua Complex

Implications and Impacts

It is not expected that the geology and hydrogeology of the area will cause or enhance any environmental impacts of the facility. The stable geology of the area increases the feasibility of the project and reduces risks associated with structures which are less stable or more erosion prone. The Anichab Pan area is an area with geological significance and should be avoided.

7.6 PUBLIC WATER SUPPLY

The NamWater Koichab Water Supply Scheme supplies Lüderitz with potable water. It consists of about nine production boreholes, supplying groundwater from the alluvial aquifer formed in a paleo-channel of the Khoichab River. During 2022/2023 the actual volume of water sold by NamWater was 1,116,872 m^3. The potential supply of the scheme is 1,460,000 m^3. Since 2022/2023, no additional industries have been developed which are major consumers of potable water and the potential supply is assumed to be very similar.

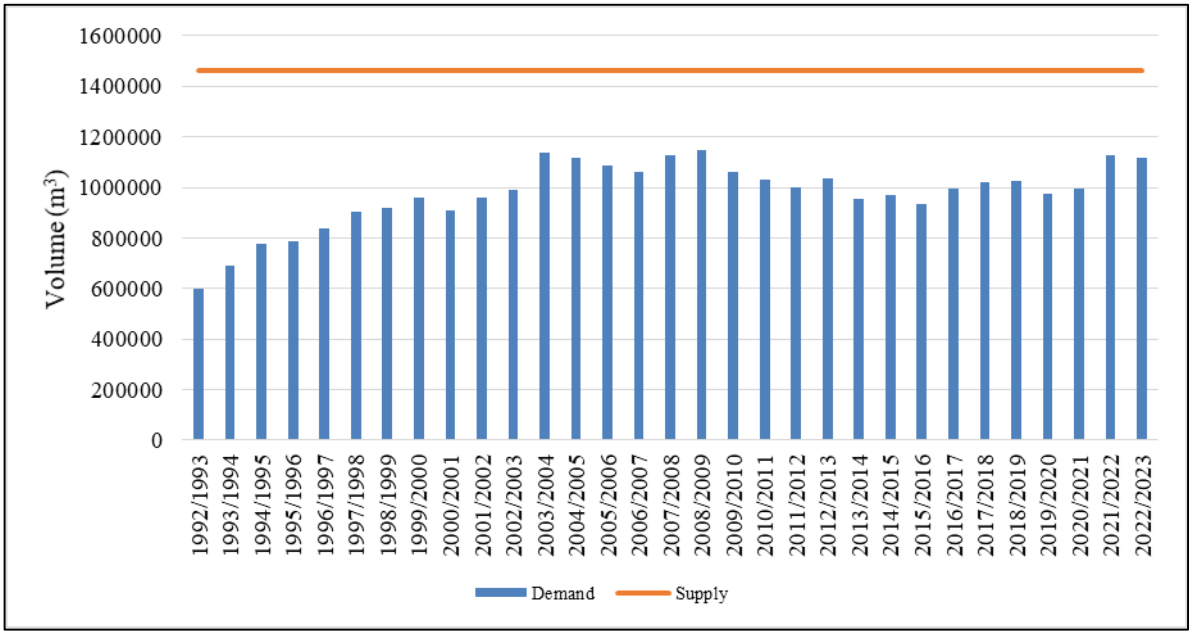

Figure 7-6 Lüderitz potable water supply and demand statistics (Source: Pers. Comm. NamWater)

Implications and Impacts

The onshore processing facility only uses potable water for domestic purposes and therefor is not expected to have an impact on the public water supply. Disruptions in potable water supply to the processing facility may impact on their operational efficiency.

7.7 ECOLOGY

Lüderitz and surrounds form part of the Succulent Karoo Biome and Succulent Karoo hotspot. It is recognised for its extremely rich succulent and bulb diversity and range restricted endemic plant species (CEPF, 2003). This environment is also associated with high reptile, amphibian and invertebrate diversity (CEPF, 2003). Its unique and rich species assemblages are as a result of the heterogenous landscape within a very arid area influenced largely by the cold Benguela current.

Lüderitz is located in the Lüderitz Peninsula vegetation zone (Figure 7-7), but due to the towns development this vegetation zone is highly degraded within the urban area. This vegetation zone is characteristic of high plant species endemism of which many are also range restricted. Brown hyena, jackal, springbok, porcupines and oryx are some of the mammals that utilize the areas surrounding Lüderitz.

The Namibian marine coastal environment is characterised by relatively low species diversity with high abundance. 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 Namibian coastline is characterised by the cold, northward flowing Benguela Current. 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, 2010). 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. Under certain environmental conditions, phytoplankton can proliferate quickly and to such an extent that algae blooms or "red tides" occur. These events can lead to mass die-off in marine animals due to neurotoxins in the algae, clogging of gills or general oxygen deficiency in water (O,Toole, 1997).

Islands and the rocky shorelines along the coast act as important sanctuaries for various bird species. At Lüderitz Important Bird Area (IBA) NA017, the Lüderitz Islands IBA, encompass the four islands; 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 (BirdLife International, 2022). 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. Declines in food as a result of competition with commercial fisheries has and still remains one of the most serious threats for several of the most threatened coastal seabirds (e.g. African Penguin, Bank Cormorant and Cape Gannet). A number of species that are red listed occur along the coast. These include birds like the African penguin, bank cormorant, crowned cormorant, cape cormorant, African oyster catcher, Damara tern, lesser flamingo, Cape gannet, etc. They, and several other species, typically populate the islands forming part of the Namibian Islands Marine Protected Area (NIMPA) (Figure 7-2), such as North Long Island, South Long Island, Halifax, Ichaboe, Possession, Mercury, etc. The NIMPA was mainly 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 takes an additional toll on the African Penguin's long-term survival. Specific to the mussel harvesting area, Anichab Pan is known to host the largest Damara tern breeding colony in southern Namibia and Ichaboe Island is a breeding area for the African Penguin and Cape Gannets (Burke and Pulfrich, 2018).

Multiple cetaceans occur along the Namibian coast. Cetaceans occurring in Lüderitz include species such as the Common Bottlenose Dolphins, the Namibian endemic Heaveside's Dolphins, Dusky Dolphins, Humpback Whales and Southern Right Whales as well as the Cape Fur Seals. This includes migratory, resident and semi-resident species.

In the vicinity of the onshore facility the seashore is mostly rocky with intertidal rocky shores and submerged reefs. 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, 2010). According to Pulfrich (2010), 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 falls within the NIMPA (Figure 7-2).

The terrestrial environment at the mussel harvesting area is more diverse with beach succulent shrubveld located parallel to the beach. This is neighboured to the east by the Namib Sand Sea (Namib Erg), Namib coastal plains and a coastal salt marsh/pan, Anichab, as you move from south to north (Strohbach, 2025) (Figure 7-7). Vegetation is sparse and mostly associated with hummocks. The northern area of Anichab Pan is a very important Damara Tern breeding area.

Implications and Impacts

The proposed harvesting activities are not expected to result in significant habitat disturbance. Harvesting is limited to the intertidal and subtidal zones where mussels are collected by hand during low tide, ensuring minimal disruption to the coastal environment. Impacts by vehicles, people, and the campsite's footprint are more likely to have ecological impacts if activities are not strictly limited to authorised areas only. No permanent infrastructure will be established at the harvesting sites, and the temporary campsite, when erected, will be fully dismantled after use, leaving no lasting environmental footprint.

The onshore processing facility is an existing facility and its potential impacts are primarily related to seawater abstraction and discharge. Improperly managed discharge could locally affect marine water quality through changes in salinity, nutrient levels, or temperature; however, due to the low discharge volumes and the high quality of treated water from the depuration systems, such effects are expected to be negligible. The facility's UV, ozone, and filtration systems significantly reduce the risk of pathogens or organic matter entering the marine environment.

Photo 7-1 Vegetation alongside the beach

Photo 7-2 Hummocks

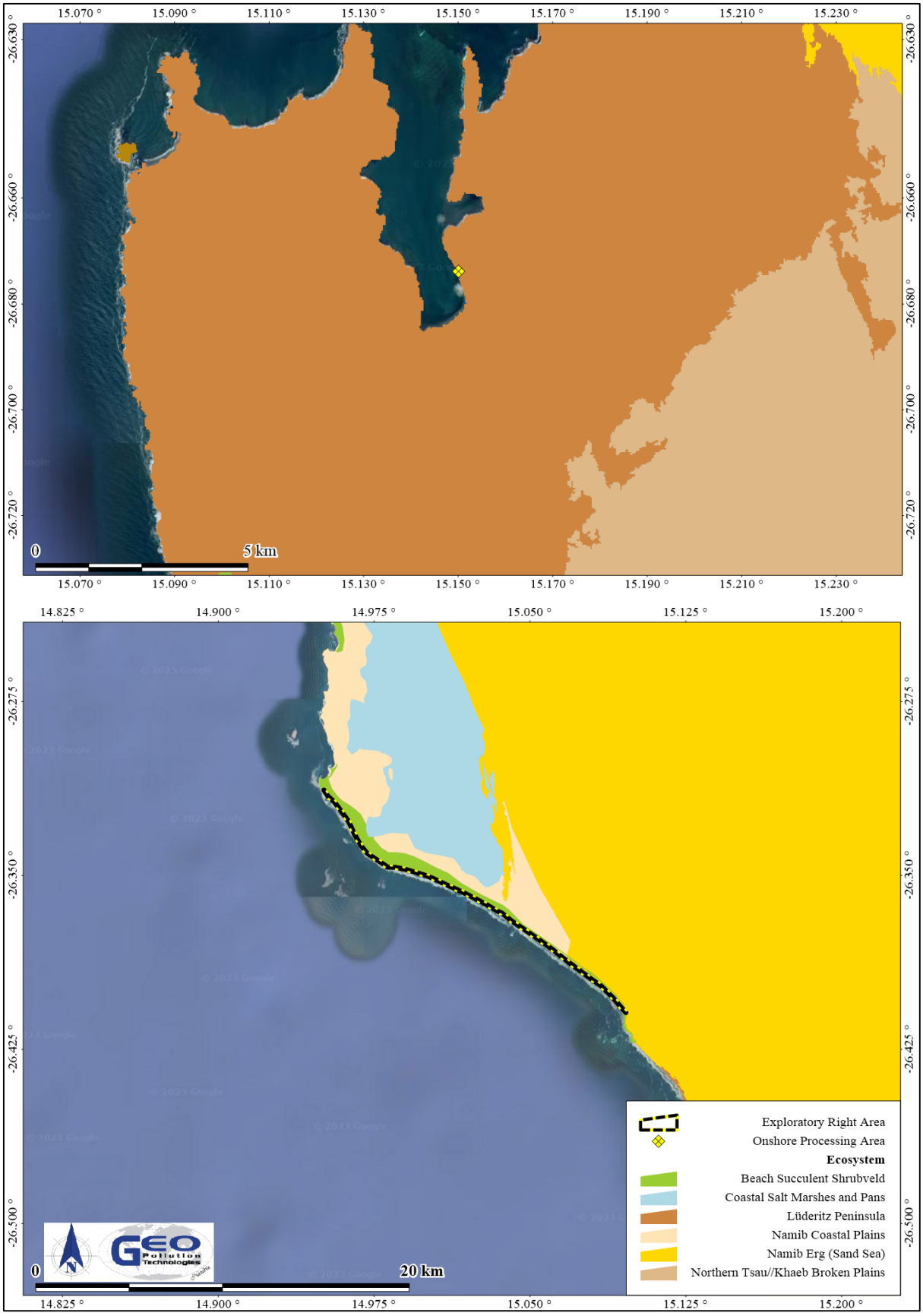

Figure 7-7 Ecosystems in the project areas (Strohbach, 2025)

7.8 DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

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 and mariculture, mining, port operations and tourism. The majority of employment is provided by the fishing industry which mainly exports fisheries products to Europe. Rock lobsters are one of the key fisheries products while mariculture of abalone, oysters and kelp are also actively pursued. 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. Main attractions are Kolmanskop, Diaz Point, historic buildings of the town and guided trips by concession holders into the Tsau //Khaeb (Sperrgebiet) National Park.

According to the latest census results published in 2024, Lüderitz has a small population of 16,125 (Table 7-4), up from 13,859 in 2011. During the 2011 census, the unemployment rate of the Lüderitz Constituency (now !Nami‡Nûs) was determined to be 28%, slightly lower than the Region's 32% unemployment rate. More recent unemployment figures have not been published.

Table 7-4. Demographic characteristics of Lüderitz Bay, the //Karas Region and Nationally (Namibia Statistics Agency, 2024)

	Lüderitz	//Karas 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

Implications and Impacts

The facility and harvesting operations will ultimately provide employment to an estimated 80 employees. Some skills development and training also benefit employees during the operational phase.

Enlarged operations may result in an increase in revenue generation for Lüderitz as well as Namibia in general. The project may therefore have a positive contribution to demographic and economic aspects of Lüderitz.

7.9 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. It hosts some of the oldest buildings in Namibia and is well known for the the Kolmanskop ghost town, east from the town. Some buildings in Lüderitz are declared national monuments and it is expected that Shark Island will in the near future be declared a national heritage site.

At the onshore processing plant, no archaeological sites are know of. Recently mass graves were however discovered next to the road leading to Diaz Point and surrounds, and thus the Proponents processing facility.

The mussel harvesting area has cultural and archaeological significance which is not as publically known as those at Lüderitz. The area was frequently visited and occupied as a result of the availability of ample freshwater in the area (Noli 1989).

The 2022 Atlas of Namibia (Atlas of Namibia Team, 2022) produced maps indicating the potential densities of archaeological sites in Namibia, by extrapolating the available data for all recorded archaeological sites. These maps were produced for archaeological sites dating back to the last 2,000 years (Figure 7-8), between 2,000 and 10,000 years ago (Figure 7-9), and 10,000 to 1.8 million years ago (Figure 7-10). Based on the extrapolated data, the project areas are located in areas where relatively low density of archaeological sites is expected. The highest density of archaeological sites will be for the period between 2,000 to 10,000 years ago.

Based on the data provided in the 2022 Atlas of Namibia, no declared national heritage monuments or sites are present within project areas. However, Namdeb's Environmental Management Programme Report for Namdeb's Mining Licence 46 (Douglas Bay) identifies a number of archaeological finds at the mussel harvesting area (Burke and Pulfrich 2018). These are indicated in Figure 7-11 together with sites of geolocial significance and fossils in the area from just north of Anichab Pan southwards to Lüderitz. Such archaeological sites include middens (Sandelowsky 1977), graves and an indigenous village (Kinahan and Kinhan, 2009). The existing road to the site comes close to some of the sites and any off-road driving has potential to destroy artefacts of significance that has not been discovered yet. The planned campsite is about 200 m away from an archaeologically significant site (Figure 7-12). Although such sites have been documented in the area, there remains a possibility that more sites or artefacts may be presents in the area.

The Namibia Sand Sea is the first World Heritage Site recognised by the United Nations Educational, Scientific and Cultural Organization (UNESCO). It is located approximately 35 km north of the mussel harvesting area. It is renowned for its outstanding natural beauty, diverse and unique dune formations, and exceptional ecological and geological processes.

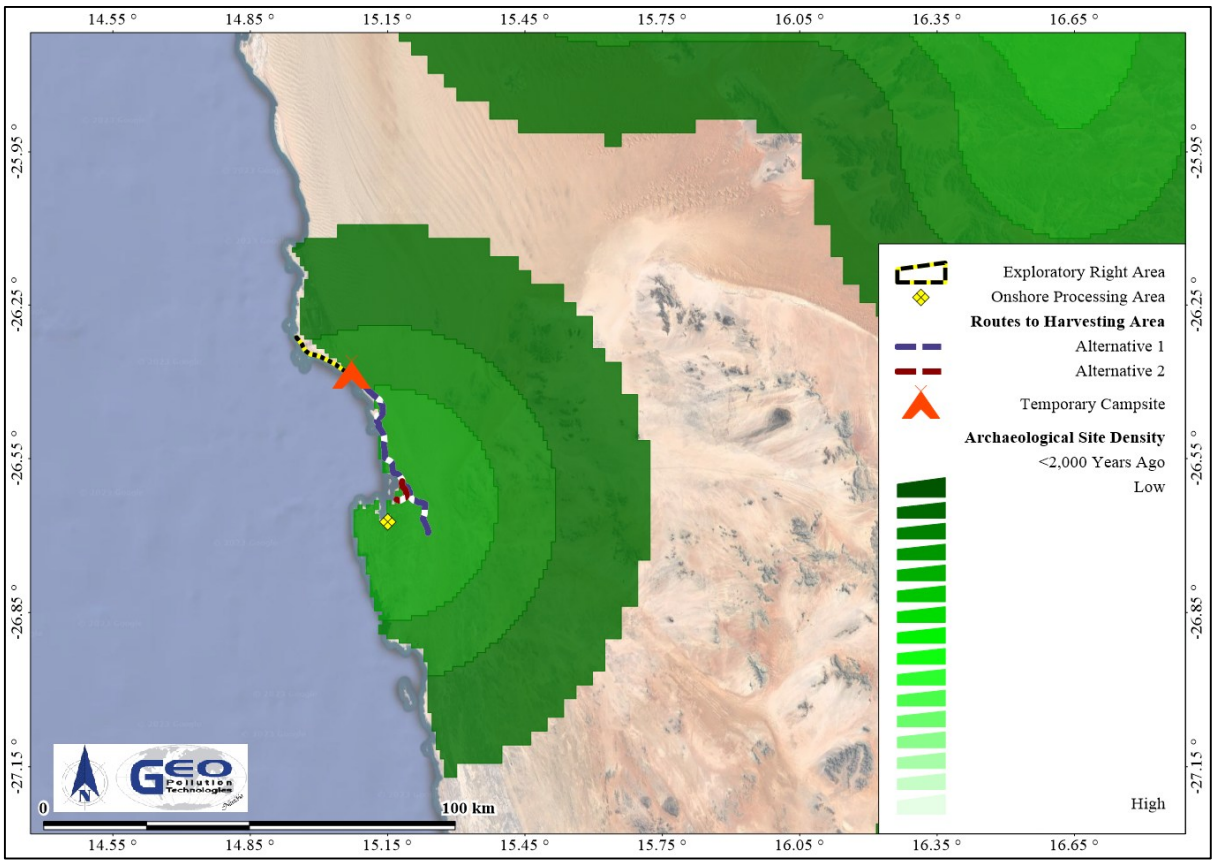

Figure 7-8 Known archaeological site densities dating to the last 2,000 years (Atlas of Namibia Team, 2022)

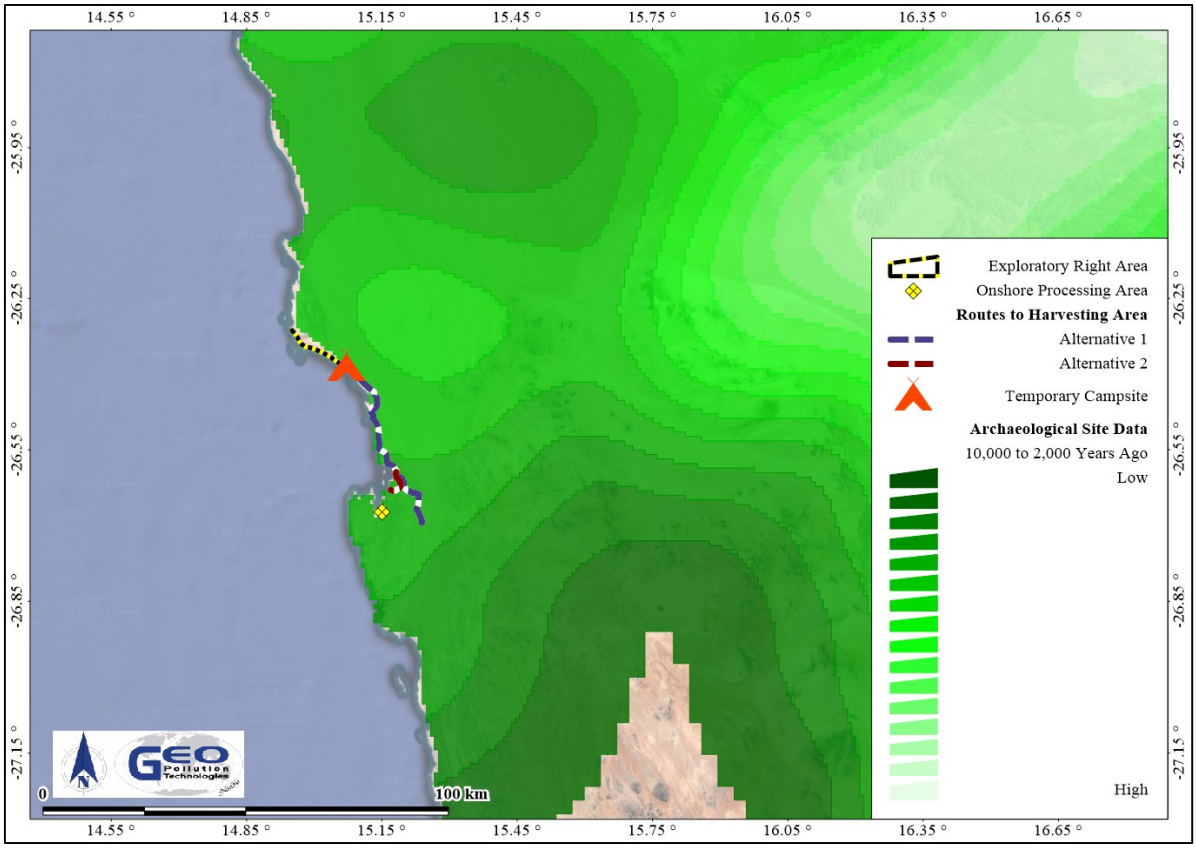

Figure 7-9 Known archaeological site densities dating to between 2,000 and 10,000 years ago (Atlas of Namibia Team, 2022)

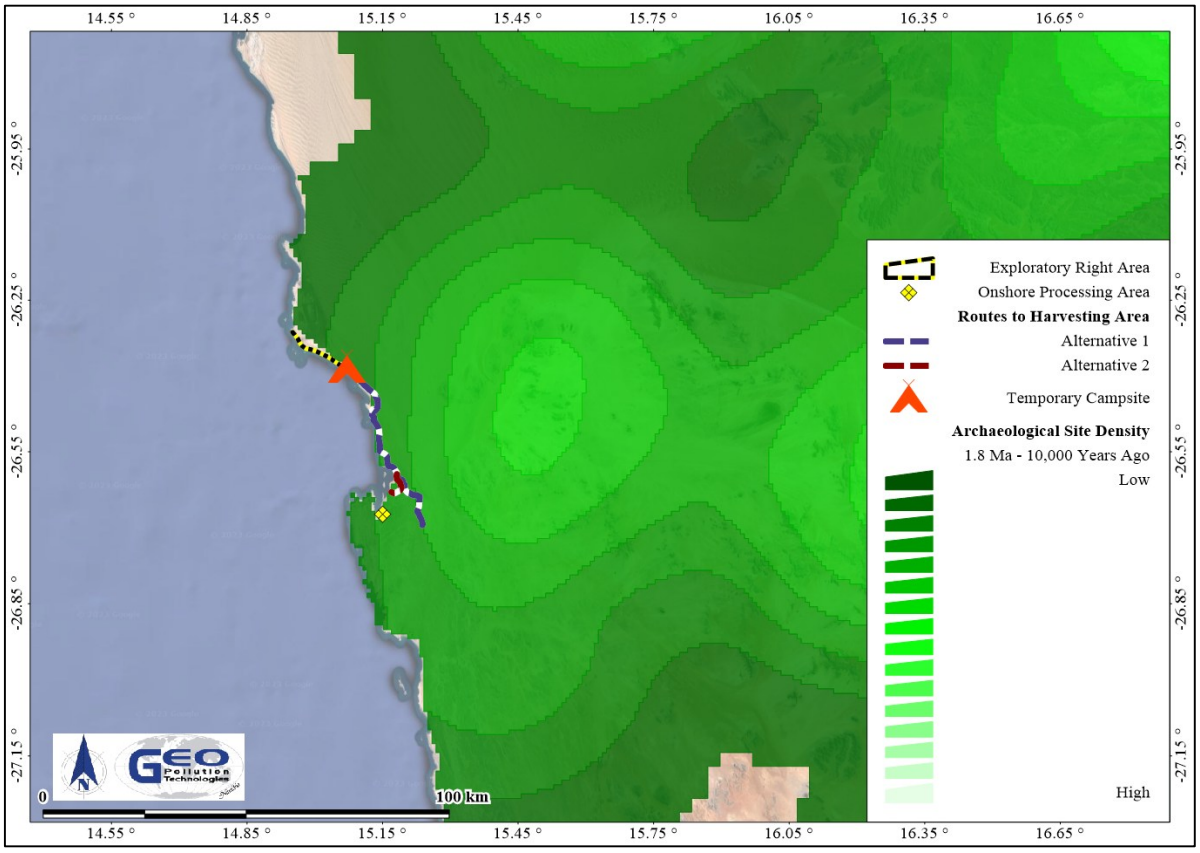

Figure 7-10 Known archaeological site densities dating to between 10,000 and 1.8 million years ago (Atlas of Namibia Team, 2022)

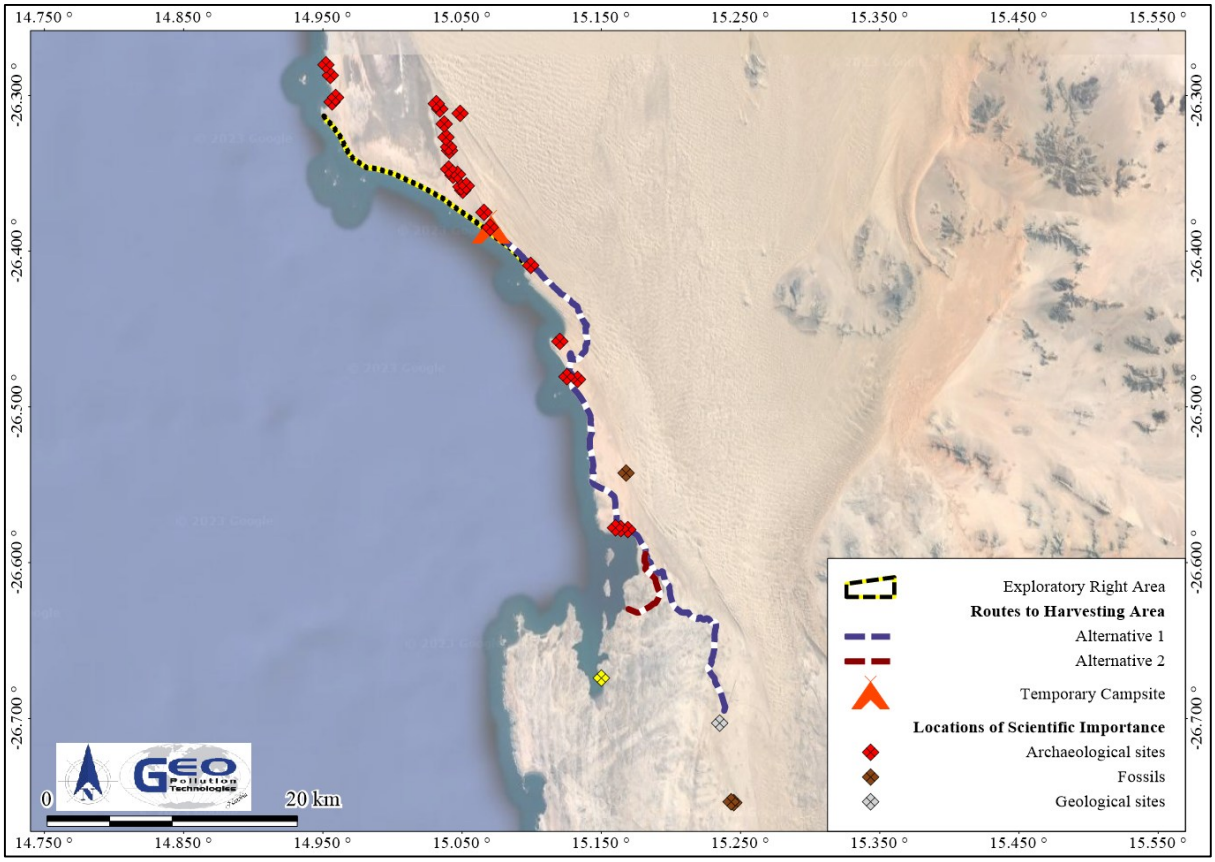

Figure 7-11 Sites of special scientific interest in relation to the Proponent's operational areas (Burke and Pulfrich, 2018)

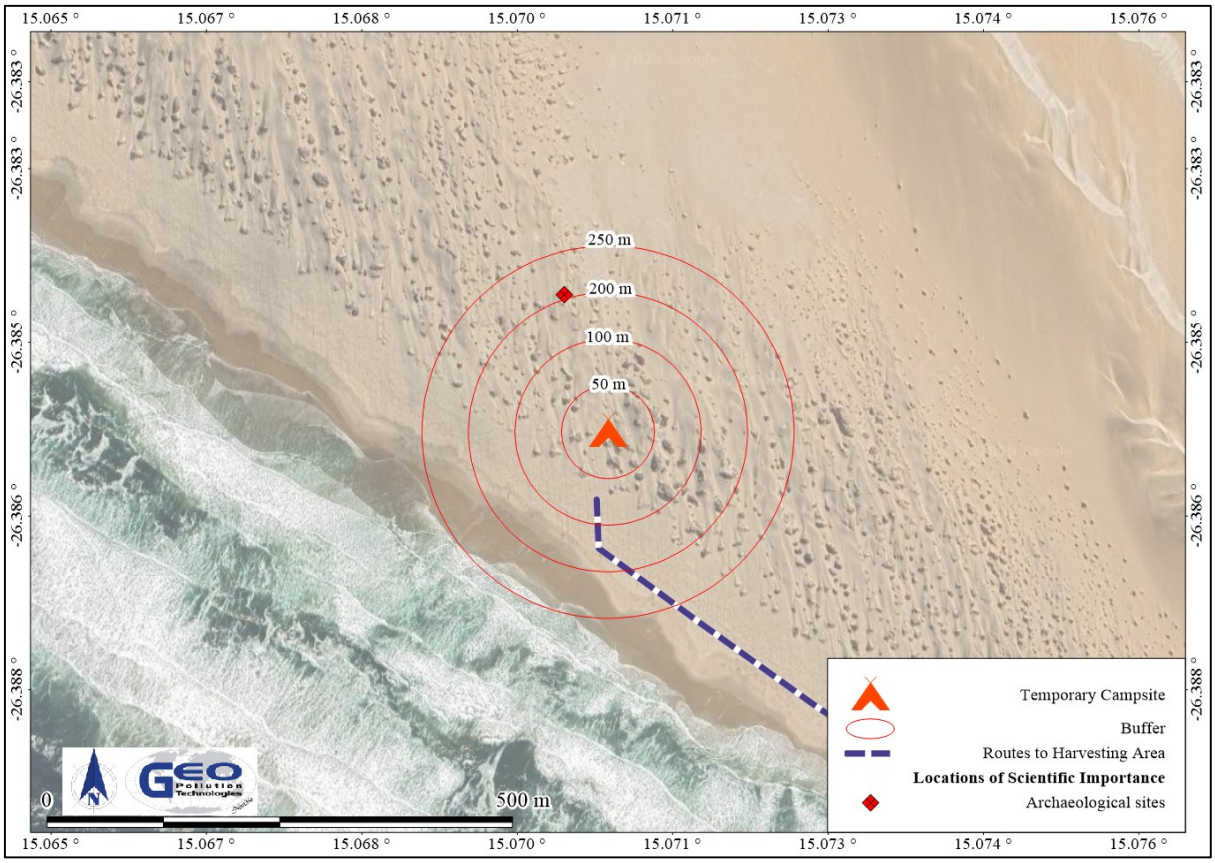

Figure 7-12 Proposed camp's proximity to the closest known archaeological site

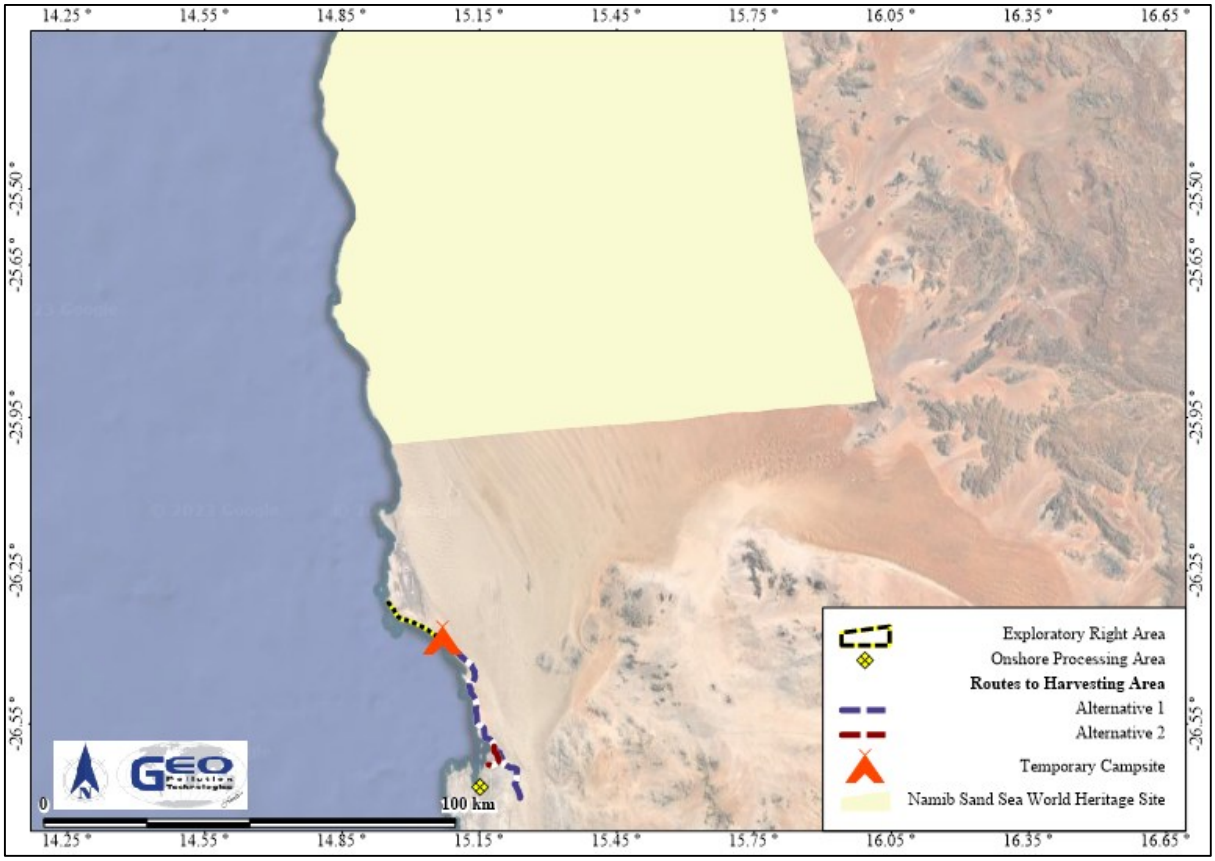

Figure 7-13 Namib Sand Sea world heritage site

Implications and Impacts

Archaeologically significant sites have previously been discovered scattered in the vicinity of Anichab Pan and Lüderitz. The current condition and/or visual presence of these sites could not be determined. Driving or camping outside of designated areas can cause damage to previously recorded or new archaeological sites.

8 PUBLIC CONSULTATION

Consultation with the public forms an integral component of an environmental assessment investigation and enables Interested and Affected Parties (IAPs) e.g. neighbouring landowners, local authorities, environmental groups, civic associations and communities, to comment on the potential environmental impacts associated with the facility and to identify additional issues which they feel should be addressed in the environmental assessment.

The public consultation process followed the procedures as stipulated in the regulations of the EMA. Public participation notices were advertised once a week for two weeks in the national papers: In the Republikein and the Namibian Sun on 9 and 16 February 2026. Notification letters were sent via email or hand delivered to neighbours and authorities. See Appendix B for proof of the public participation processes and the registered IAPs. The comments and responses table is also presented in Appendix B.

9 ASSESSMENT AND MANAGEMENT OF IMPACTS

The purpose of this section is to assess and identify the most pertinent environmental impacts that are expected from the construction, operational and potential decommissioning activities of the facility. An EMP based on these identified impacts is also incorporated into this section.

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

Ranking formulas are then calculated as follow:

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

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

The probability ranking refers to the probability that a specific impact will happen following a risk event. These can be improbable (low likelihood); probable (distinct possibility); highly probable (most likely); and definite (impact will occur regardless of prevention measures).

Table 9-1 Assessment criteria

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

Strong Cumulative Character	3

Table 9-2 Environmental classification (Pastakia 1998)

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

9.1 RISK ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

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

The objectives of the EMP are:

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

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

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

9.1.1 Planning

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

- Ensure that all necessary permits from the various ministries, local authorities and any other relevant bodies that governs the project are in place and remains valid. These include the exploration right and park access permits.
- Ensure a contractor management program is in place and that it includes the EMP.
- Employees to adhere to relevant sections of the EMP, as applicable to their scope of work and general operations.
- Make provisions to have a health, safety and environmental coordinator or similar to oversee implementation of the EMP, occupational health and safety, as well as general environmental related compliance.
- Make provisions for a community liaison officer to handle complaints from the public or other entities.
- Have the following monitoring programmes, emergency plans, equipment and personnel on site where reasonable to deal with all potential emergencies and incidents:
    - Environmental monitoring and reporting programme
    - Health, safety and environment (HSE) manuals
    - Emergency response plan
    - Procedures, equipment and materials required for emergencies.
    - Adequate protection and indemnity insurance cover for incidents
- Develop and adopt a waste management plan inclusive of a waste minimisation and waste disposal.
- Ensure availability of sufficient funds or insurance spill clean-up or pollution remediation if ever required.
- Submit bi-annual reports to the MEFT to allow for ECC renewal after three years. This is a requirement by MEFT.
- Update the EMP and apply for renewal of the ECC prior to expiry.

9.1.2 Employment

The Proponent employs approximately 9 workers dedicated to the mussel project at the processing plant in Lüderitz. More workers are employed for operations dealing with crayfish, oysters, etc. About 27 workers will be involved on a contract basis with the harvesting of white mussels. Successful implementation of the project is hinged on continued employment of such labourers. Continued employment in turn increases their economic stability and economic resilience. Third party contractors may be used for activities such as maintenance and refurbishment of the processing plant and transporting of products to markets. Thereby also sustaining employees working for such contractors.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Employment	3	2	2	2	2	36	4	Definite

Desired outcome: Reduction in unemployment and increased economic resilience in the local labour sector. Continued remuneration of employees as per the Labour Act. Continued contributions to social security.

Actions

Enhancement:

- The Proponent must employ local Namibians where possible. Deviations from this practice should be justified in accordance with the Immigration Control Act, 1993.
- Reputable, local, Namibian contractors should be used where available.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Bi-annual summary report based on employee records.
- Financial records of contributions to social security and employees' salaries.
- Service providers' contracts or agreement or records be kept.

9.1.3 Skills, Technology and Development

While the actual harvesting of white mussels is a relatively unskilled, support services and operations at the processing plant will require more specialised skills. Skills will thus be transferred to an unskilled or semi-skilled workforce to be able to perform certain tasks. The addition of the processing plant at Lüderitz contributes to the development and increase in technology in the town.

Through the collection of data on white mussels (refer to section 9.1.5) the possibility exist for students to participate and use the data to enrol in post graduate studies.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Technological development and transfer of skills	2	1	2	2	1	10	2	Definite

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

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 practice should be justified in accordance with the Immigration Control Act, 1993.
- Training and skills development must be focussed on Namibians.
- Skills development and improvement programs to be made available as identified during performance assessments.
- Employees to be informed about parameters and requirements for references upon employment.
- Advocate for the use of data collected on white mussels to enrol for post graduate studies.

Responsible Body:

- Proponent

Data Sources and Monitoring:

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

9.1.4 Revenue Generation and Economic Development

Resources are produced or sourced locally and then exported internationally, contributing to the economy and trade balance of Namibia. Relevant taxes are paid to the National treasury. The successful implementation of the project and related return on investment for shareholders, will boost investors' confidence in Namibia. The successful implementation of the project will contribute to Namibia's sustainable development of Vision 2030 and the related development goals. The project may contribute to stimulation of growth in the region and increase localised expenditure.

Consulting and professional services are engaged with for assistance in applications for new permits and renewal for existing permits. During the application processes, information is generated which informs and facilitates planning of the Proponent as well as affected parties and governmental agencies. The professional service sector is further engaged with in terms of administrative processes. Such services mainly relate to the planning and operational services.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Contribution to the Namibian economy	3	3	2	2	2	54	4	Definite

Desired outcome: Contribution to national treasury and increased economic resilience in the local labour sector.

Actions

Enhancement:

- Maximise contribution to the Namibian economy by contributing to industry development and using Namibian suppliers. Adhere to the Namibian Labour and Income Acts' requirements.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Financial records of contributions to social security and employees' salaries.
- Service providers' contracts or agreement or records be kept.

9.1.5 Generation of Knowledge

Recent scientific data on the distribution and abundance of white mussels along the Namibian coastline is lacking. Existing studies are more than twenty years old. In fulfilment of the exploration right's conditions, valuable scientific information on white mussels, and potentially other species or aspects of marine ecology, will be gathered by the Proponent and officials from MAFWLR. Should the exploratory right ultimately become a right to harvest, this knowledge base will further be broadened.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Collection of scientific data and knowledge	3	3	2	2	2	54	4	Definite

Desired outcome: To increase the scientific knowledge and data on white mussels and potentially other marine species or aspects.

Actions

Enhancement:

- In cooperation with MAFWLR device a data collection protocol prior to the onset of harvesting in terms of the exploration right. This should include what to measure and how to measure it.
- Ensure that all measurements, counts, location mapping, etc. are conducted scientifically by trained individuals to ensure sound data is collected that can reduce the knowledge gap and potentially lead to scientific publications.

Responsible Body:

- Proponent
- MAFWLR

Data Sources and Monitoring:

- Accurate record keeping with backups to ensure no data gets lost.
- Actively utilise data to contribute to the knowledge base of Namibia's marine resources through publications or post graduate studies.

9.1.6 Tourism Concession

Harvesting of mussels will take place within the Northern Dunes Tourism Development Area (TDA). Concession rights have been awarded to Living on the Edge to conduct guided tours into the area. The presence of the mussel harvesting team and associated campsite can pose possible negative impacts on the tourism activities, mainly as a result of visual impacts.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	A change in the visual character of the environment impacting tourism	2	-2	2	2	2	-24	-3	Probable

Desired Outcome: No negative impact on tourism in the TDA

Actions:

Prevention:

-
-

Mitigation:

- Use only material that blend into the surroundings for the temporary campsite (e.g. sand coloured canvas for tents) and no brightly coloured objects.
- Continuous liaison with the concession holder to, when tours are planned, schedule mussel harvesting away from main routes used for tours and from Anichab Pan.
- All other preventative and mitigation measures, such as those to prevent pollution and environmental damage, will further limit impacts on guided tours in the area.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Bi-annual summary report based on complaints received and action taken.

9.1.7 Demographic Profile and Community Health

The project is reliant on labour during the operational phase. It is not foreseen that the project will create a change in the demographic profile of the Lüderitz community, as employment will be sourced locally as far as possible. Community health may still to some extent be exposed to factors such as communicable disease like HIV/AIDS and alcoholism/drug abuse associated with increased disposable income of workers. Should an increase in foreign people (e.g. migrant workers) in the area take place, this may potentially increase the risk of criminal and socially/culturally deviant behaviour such as stealing of produce, poaching and the illegal harvesting of fish and marine resources. More people in the area will exert additional pressure on governmental services, particularly essential services such as health care. The impact may be reduced by the fact that Lüderitz is far removed from other inhabited areas, the distance factor hampering demographic processes.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Social ills related to unemployment. Increased number of people compounding existing service delivery challenges	2	-1	2	2	2	-12	-2	Improbable

Desired Outcome: To prevent the spread of communicable diseases and prevent / discourage socially deviant behaviour.

Actions:

Prevention:

- Employ only local people from the area.
- Adhere to all municipal by-laws relating to environmental health, such as sanitation requirements.

Mitigation:

- Provide educational, awareness information for employees on various topics of social behaviour and HIV/AIDs.
- Appointment of reputable contractors.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Bi-annual summary report based on employee demographics, educational programmes and training conducted.

9.1.8 Health and Safety

Activities associated with the project are reliant on human labour and therefore health and safety risks exist. Such risks will mostly be different for the harvesting of white mussels and operations at the processing plant. The main risks associated with the harvesting component include: vehicle accidents when accessing beaches, being swept into the ocean by unexpected waves or currents which can lead to hypothermia or worst case scenario drowning, hypothermia from continuously being in cold water during digging for mussels, sunstroke or sunburn, getting stung by bluebottles, minor injuries such as cuts or sprains, and, although relatively unlikely, arc-eyes from the sun's glare on the water. Workers can also get an illness not related to any of the activities while at the harvesting site (i.e. an underlying condition or bacterial or virus infection through exposure prior to going to site). Due to the remoteness of the harvesting sites, and the length of time required to drive through difficult terrain, treatment or assistance may not be immediately available.

At the factory, injuries can occur due to incorrect lifting of heavy equipment and materials, falling from heights, stacked items tipping over, slipping on wet floors, etc.

Molluscs often accumulate trace elements within their flesh and this may include heavy metals like cadmium and lead. They may also contain bacteria or can cause PSP and DSP. Both types of poisoning result when shellfish consume certain toxic microalgae. Health effects are thus also possible to the consumers of the molluscs ranched or harvested and distributed by the Proponent.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Physical injuries and exposure to the elements Illness due to contaminated seafood	3	-3	2	2	1	-45	-4	Probable

Desired Outcome: To prevent injury and health impacts.

Actions

Prevention:

At minimum the Proponent must:

- Comply with all health and safety standards specified in the Labour Act.
- Develop an emergency response plan for injuries and related risks.
- At least two persons who accompanies the harvesting team and two persons at the processing plant must be trained in first aid. Due to the remoteness of harvesting sites, first aiders there should have more advanced training.
- When areas with no cellular network reception is visited, a satellite phone should be present to contact emergency services for serious incidents that require search and rescue or evacuation.
- Suitably qualified and experienced drivers should be used to transport employees to and from harvesting sites.
- Provide all employees with required and adequate personal protective equipment (PPE) inclusive of insulating wetsuits for harvesters (these can also act as flotation devices).
- While harvesting white mussels, employees should be provided with enough fresh potable water to prevent dehydration and to wash the seawater (salt) off when finished.
- All personnel should have tents and bedding, sufficient to protect them from cold and wet conditions.
- Ensure that all personnel receive adequate training on safety aspects pertaining to the harvesting of mussels and operations in the processing plant.

- Clearly label dangerous and restricted areas as well as dangerous equipment and products at the processing plant.
- Sampling of molluscs as per the standards for mariculture industry in Namibia as performed by the Namibia Standards Institution.
- Develop Hazard Analysis Critical Control Points (HACCP) principles and develop an in-house food safety program.

Mitigation:

- Treat all minor work related injuries immediately and obtain professional medical treatment if required.
- Assess any safety concerns and incidents and implement corrective action to prevent future occurrences.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- HACCP
- Sampling as per the existing standard for mariculture industry in Namibia as performed by the Namibia Standards Institution.
- Monitoring and analysis reports on file.
- Record any incidents with the actions taken to prevent future occurrences.
- Record all training which was conducted and when safety equipment and structures were inspected and maintained.
- A bi-annual report should be compiled of all incidents reported and all monitoring/analysis results. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained.

9.1.9 Security

Security risks are mainly related to unauthorized entry and theft at the processing plant. The harvesting team may potentially access restricted diamond areas.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Physical injuries and criminal activities	1	-2	2	2	1	-10	-2	Probable

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

Actions

Prevention:

- Security procedures and proper security measures must be in place to protect workers and clients at the processing plant and to prevent theft.
- Harvesting teams must comply to the conditions and procedures required to access diamond areas which includes obtaining of police clearance certificates.

Mitigation:

- Take disciplinary steps within the legal parameters of Namibia against personnel who are found guilty of theft.
- Since harvesting operations will take place in mostly access controlled locations, report any suspicious onshore and offshore activity to the relevant authorities such as the MEFT, MAFWLR, Namibian Police, etc.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- A bi-annual report should be compiled of all incidents reported with actions taken to address such problems and prevent future incidents.

9.1.10 Noise

Noise impacts are limited to the processing facility where blowers and freezers may produce noise. The impact is not expected to be highly significant and will be limited to workers as the processing plant is located far from any other developments.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Noise generated from the operational activities – nuisance and hearing loss	1	-1	2	2	1	-5	-1	Improbable

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

Actions

Prevention:

- Adhere to the applicable prescribed noise levels as contained in the Labour Act, 1992: Regulations relating to the health and safety of employees at work.
- All machinery must be regularly serviced to ensure minimal noise production.
- Blower fans and pumps can be enclosed to reduce noise.

Mitigation:

- Hearing protectors as standard PPE for workers in situations with elevated noise levels.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Labour Act, 1992: Regulations relating to the health and safety of employees at work.
- Maintain a complaints register.
- Report on complaints and actions taken to address complaints and prevent future occurrences.

9.1.11 Fire

Fire risks are mostly linked to the processing plant and the unlikely possibility of a vehicle catching fire. Construction and maintenance activities, failing electrical infrastructure, short circuits and poorly maintained vehicles can for example result in a fire.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations inclusive of maintenance / construction	Fire risk	3	-2	2	2	1	-30	-3	Improbable

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

Actions:

Prevention:

- Prepare a holistic fire protection and prevention plan. This plan must include evacuation plans and signage, an emergency response plan and a firefighting plan.
- Personnel training (safe operational procedures, firefighting, fire prevention and responsible housekeeping practices).
- Ensure all flammable chemicals are stored according to material safety data sheet (MSDS) instructions and all spills or leaks are cleaned immediately.
- Maintain regular site and vehicle mechanical and electrical inspections and maintenance.
- Maintain firefighting equipment and fit all vehicles with a fire extinguisher.
- Candles or open flames should at no time be allowed within tents, save for the kitchen tent.

Mitigation:

- Implement the fire protection and firefighting plan in the event of a fire.
- Quick response time by trained staff will limit the spread and impact of fire.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Maintain a register of all incidents on a daily basis. Include measures taken to ensure that such incidents do not repeat themselves.
- Compile a bi-annual incidents report. The report should also contain dates when fire drills were conducted and when firefighting equipment were tested and serviced and when training was conducted.

9.1.12 Waste Production

Minimal waste will be produced by the Proponent. Waste streams generated include domestic waste, biological waste (dead molluscs and mollusc shells) and sewage, and waste generated during the cleaning of holding tanks. Construction and maintenance waste may include building rubble and discarded equipment. Contaminated soil and water (by hydrocarbons or chemicals) may be considered as hazardous waste. Unconfined wastes / litter such as empty cement bags may be blown away by strong winds and end up in the surrounding environment.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations inclusive of maintenance / construction	Excessive waste production, littering, contaminated materials	2	-1	2	2	1	-10	-2	Definite

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

Actions

Prevention:

- Develop and implement a waste management program, this should include waste reduction and recycling initiatives and regular inspection and maintenance of waste storage and disposal areas.
- All employees should be educated on proper waste handling and disposal and importantly on the segregation of waste according to the different waste streams and their appropriate disposal locations.
- Ensure adequate temporary waste storage facilities are available that prevents waste being blown away by wind and prevent scavenging (human and non-human) of waste.
- No waste may be buried at white mussel harvesting sites and all waste should be contained and transported back to Lüderitz for disposal at the registered landfill.
- Mobile toilets should be transported to and from white mussel harvesting sites and the contents of the holding tanks must be disposed of at a registered sewage treatment plant. No sewage related waste may be disposed of at the mussel harvesting sites.
- Waste should be disposed of regularly and at appropriately classified disposal facilities, this includes hazardous materials (empty chemical containers, contaminated rugs, paper water and soil), if any. See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers.
- A contingency plan must be developed to handle any hazardous biological waste, for example disease-bearing molluscs. This should include proper disposal methods to prevent spread of contamination or scavenging by animals or humans.

Mitigation:

- In the event of fuel or oil spills or leaks en route to, or at the mussel harvesting sites, all contaminated soil should be collected for disposal at a registered disposal facility for hazardous products.
- Beneficial use of shells may be investigated e.g. as source of calcium carbonate, in order to minimize this type of waste associated with the processing plant
- Weekly inspections and clean-ups of the shoreline near the processing plant to ensure waste from the industry does not pollute the environment.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Waste management plan on file.
- A record should be kept of any disposal of hazardous waste.
- Any complaints received regarding waste should be recorded with notes on action taken.
- All information and reporting to be included in a bi-annual report.

9.1.13 Ecosystem and Biodiversity Impact

White mussel harvesting sites will mainly be accessed by four-wheel drive vehicles. Such vehicles have the potential to cause significant damage if driving on sensitive habitats. Tracks created when driving through the shifting sand dunes typically quickly covers with sand. However, some desert dwelling animals such as the sidewinder snake, geckos, spiders, scorpions and beetles may be present on or between dunes, or just beneath the sand of the dunes. These can be injured or killed by vehicles' wheels. Driving near the shore has more potential for damage as biodiversity increases due to the presence of more food. This may include, depending on the area accessed, various birds, jackals, brown hyenas, seals, numerous arthropods and the occasional chameleon. Driving between the high and low water mark can injure or kill burrowing animals living in the sand. This includes white mussels. One of the largest Damara Tern breeding areas are associated with the Anichab Pan.

Overharvesting of white mussels can disrupt the food web and lead to population decline. Returning of undersized mussels to the water, without placing them back into the sand, will expose an unnaturally high number of mussels to predators which may, together with the harvesting thereof, impact population sustainability.

At the processing plant, bright lighting may blind and disorientate birds like flamingos that fly at night. This can result in collisions with man-made structures.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Impact on the environment and plants and animals	3	-2	2	2	1	-30	-3	Probable

Desired Outcome: To prevent or minimise disturbance and destruction of the ecological environment and prevent contamination thereof.

Actions.

Prevention:

- One of the most important actions to prevent environmental impacts is education of all workers on the importance of protection of biodiversity and the environment. This should include creating an understanding of why it is important and not simply a "you may not" command.
- Drivers of vehicles should specifically be trained to be vigilant for any signs of animals and plants and to avoid these. Specifically vigilance for bird nests (often very well camouflaged) and bird chicks is important. Chicks often cannot get out of deep vehicle tracks in time and can be driven over.
- Vehicles should drive in convoy and only on existing tracks with a lead vehicle and all other vehicles following in its tracks to reduce the potential impact on the environment.
- Where tracks are not visible in the dune areas, the same route should be used each time, by driving according to GPS tracks, in order to minimise possible environmental impacts.
- No vehicles may access the beach between the high and low water mark.
- All vehicles wheels must be deflated to less than 1.4 bar to reduce soil compaction and injury to soil dwelling animals (this will also be required to drive on sandy terrain to prevent getting stuck and may require dropping tyre pressure to as low as 0.8 bar).
- When driving past flocks of birds or seals on the beach, vehicles should slow down and attempt to pass them at a distance as not to disturb them, but also not damaging other sensitive habitats.

- The campsite footprint should be kept to a minimum and no vegetation may be removed or damaged to establish the camp.
- Before choosing the campsite location, inspect the areas for any visible signs of animal burrows and activity around hummocks and vegetation. Choose sites with no or little animal activity.
- Workers' movements must be restricted to the campsite and to the sandy beach area. A dedicated route from the beach to the campsite should be used at all times.
- All rocky shores, the Anichab Pan, hummocks and vegetated areas, save for the campsite, should be avoided at all times.
- Digging for white mussels may only be by hand and no equipment such as spades or forks may be used.
- Only white mussels meeting the size limits imposed by MAFWLR may be collected. Too small white mussels must be placed back in the sand and suitably covered to ensure they do not wash away and are targeted by predators.
- During the exploration phase, sustainable yield will be determined by MAFWLR whose officials will also periodically accompany the Proponent to harvesting sites. The Proponent must adhere to the harvesting quota prescribed by MAFWLR based on the determined sustainable yield.
- Waste handling should be according to section 9.1.12.
- At the processing plant, all lighting used at night should be directed downwards as not to impact birds flying at night. This will also decrease the visual impact of the facility.
- No diseased animal found in the holding tanks of the facility may be discarded into the ocean. Handling of hazardous biological waste should be according to section 9.1.12.
- The water of any holding tank where a diseased animal was found must be sterilised before being disposed of.

Mitigation:

- Harvested sites should be given enough time to recover before being harvested again.
- Continuous monitoring of population distribution and abundance should be performed in order to timeously detect decreasing populations (whether as a result of the Proponent's harvesting or from natural causes such as sea surface temperature disruptions influencing reproduction). Should such decreases be detected the collection strategy and quota should be reviewed in conjunction with MAFWLR.
- Report any injured animals or extraordinary sightings of animals to MEFT and/or MAFWLR.

Responsible Body:

- Proponent
- MAFWLR

Data Sources and Monitoring:

- Records should be kept of all mussels as per the requirements of MAFWLR which, among others, include parameters such as location, quantity, sizes, etc.
- All monitoring information to be included in a bi-annual report or as per the requirements of MAFWLR.

9.1.14 Surface Water, Soil and Groundwater Contamination

Leaks and spillages from vehicles or illegal dumping of waste may lead to surface water (ocean), groundwater and soil contamination. Localised reduction in seawater quality can occur at the processing plant when pollutants including high organic loads enter the ocean. Fresh groundwater sources and fountains are present near the mussel harvesting area. Disposal of sewage or other forms of pollution may impact these resources.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Contamination of water and soil	2	-1	2	2	1	-10	-2	Probable

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

Actions

Prevention:

- Develop a spill response plan with adequate spill response materials for unlikely events of fuel or oil spills.
- Stay clear at all times from the areas indicated in Figure 7-5 as having boreholes and fountains.
- All equipment, engines and parts that can potentially result in pollution due to breakages must be regularly maintained and serviced to reduce the probability of such events from occurring (e.g. inspection and replacement of fuel hoses).
- Vehicles may not be serviced while on site to collect white mussels.
- Follow waste management measures as per section 9.1.12, specifically with reference to the handling of sewage.

Mitigation:

- Any spill must be cleaned and disposed of at a registered waste disposal facility.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Keep a maintenance schedule for all equipment.
- A report should be compiled of all incidents with actions to rectify the problem recorded.

9.1.15 Archaeological, Heritage and Cultural Impact

Lüderitz has a rich heritage due to it being one of the oldest towns in Namibia with a rich history in the diamond mining sector. No known heritage, archaeological or cultural artefacts are present in the direct vicinity of the processing plant.

The road to the mussel harvesting area, and the surroundings at the mussel harvesting area, hosts known sites of archaeological significance. As long as the Proponent do not deviate from the access routes as presented in this report, none of these sites will be impacted, even though the road does come close to some of them. The possibility exist that new sites may be exposed during strong winds and as a result of shifting sands.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Unearthing / finding and damage to artefacts of archaeological, heritage and / or cultural value	4	-2	2	3	1	-48	-4	Improbable

Desired Outcome: To preserve any artefacts of archaeological, heritage or cultural significance.

Actions

Prevention:

- Inform all employees to be vigilant for any extraordinary finds and to take action not to cause any damage to such finds, but report it to the manager present at the site.
- The campsite should not be located closer than 200 m from the known archaeologically significant site.
- Workers' movements must be restricted to the campsite and to the sandy beach area. A dedicated route from the beach to the campsite should be used at all times.

Mitigation:

- If a site or any other archaeologically important artefact is found a "chance finds procedure" must be initiated which includes stopping any further work that can cause damage and reporting to superiors and the relevant authorities.
- For any human remains, the Namibian Police must be informed as a first action.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Compile a bi-annual report of all chance finds, proof of reporting to authorities and actions taken.

9.1.16 Cumulative Impact

Cumulative impacts associated with the project are minimal. It mainly includes increased traffic on the roads to the processing plant at Lüderitz. The areas to be accessed to harvest white mussels are strictly controlled with only concession holders and their clients, mining companies, and officials from MEFT or MAFWLR periodically entering these areas.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	The build-up of minor impacts to become more significant	2	-1	2	2	2	-12	-2	Probable

Desired Outcome: To minimise cumulative impacts associated with the project.

Actions

Mitigation:

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

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Bi-annual summary reports based on all other impacts will give an overall assessment of the possible cumulative impacts of the operational phase.

9.2 DECOMMISSIONING AND REHABILITATION

Decommissioning of the processing plant is not foreseen during the validity of the ECC. Decommissioning was however assessed as construction activities include modification and decommissioning. Should decommissioning occur at any stage, rehabilitation of the area may be required. Decommissioning will entail the complete removal of all infrastructure including buildings and underground infrastructure. Any pollution present on the site must be remediated. The impacts associated with this phase include noise and waste production as structures are dismantled. Noise must be kept within Labour Act and WHO standards and waste should be contained and disposed of at an appropriately classified and approved waste facility and not dumped in the surrounding areas. Future land use after decommissioning should be assessed prior to decommissioning and rehabilitation initiated appropriately. The environmental management plan for the facility will have to be reviewed at the time of decommissioning to cater for changes made to the site and implement guidelines and mitigation measures. Decommission of the tented camp will require the removal of all equipment and waste and leaving the site as it was before the camp was erected.

9.3 ENVIRONMENTAL MANAGEMENT SYSTEM

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

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

10 CONCLUSION

The mussel harvesting and seafood processing operations undertaken by the Proponent have a positive socio-economic impact on Lüderitz and the wider region. The ongoing activities contribute to employment creation, income generation, and local economic stimulation, while also supporting Namibia's broader goals of marine resource development and value addition. In addition to direct employment, the project facilitates skills transfer and training within the seafood handling and processing sectors, contributing to the professional development of the local workforce.

Potential negative environmental impacts associated with the harvesting and processing operations can be effectively mitigated through proper management practices. The implementation of biosecurity protocols and disease management measures reduces the risk of contamination or pathogen spread among marine species handled at the facility. Routine monitoring and analysis of seawater and effluent will ensure water quality and system performance are maintained. All generated waste will be collected, transported, and disposed of at approved facilities, with materials reused or recycled wherever possible. Any hazardous waste, if produced, will be managed in accordance with national waste regulations and disposed of at a licensed hazardous waste disposal site. A detailed contingency plan should be in place to guide appropriate responses to potential biosecurity incidents or system failures, ensuring the protection of the marine environment and product integrity.

In terms of mussel harvesting the EMP must be followed with specific attention to the protection of the environment and sites of archaeological or scientific significance. The local mussel population must be carefully monitored in cooperation with MAFWLR. No driving outside of existing tracks should be allowed. The chance find procedure must be implemented for any archaeological finds.

Noise pollution should at all times meet the prescribed Health and Safety Regulations of the Labour Act and WHO requirements to prevent hearing loss and not to cause a nuisance. Fire prevention should be adequate, and health and safety regulations should be adhered to in accordance with the regulations pertaining to relevant laws and internationally accepted standards of operation.

The EMP should be used as an on-site reference document for all the operational activities. Parties responsible for transgression of the EMP should be held responsible for any rehabilitation that may need to be undertaken. The Proponent could develop an environmental management system to develop policies and strategies in conjunction with the EMP. It is imperative that all construction and operational personnel are taught the contents of these documents to ensure better environmental practises all round.

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

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Appendix A: Exploratory Right

REPUBLIC OF NAMIBIA

MINISTRY OF FISHERIES AND MARINE RESOURCES

OFFICE OF THE MINISTER

Tel: (00 264 61) 205 3101
Fax: (00 264 61) 233 286

Brenden Simbwaye Square
Block C
Dr. Kennith Kaunda Street
Private Bag 13355
WINDHOEK

Mr. Jose Luis Fernandez Rodriguez
City Gate Trading CC
P. O. Box 9055
WALVIS BAY

21 August 2023

Dear Mr. J. L. Fernandez Rodriguez,

SUBJECT: RE-INSTATEMENT OF EXPLORATORY RIGHT FOR WHITE MUSSELS (DONAX SERRA): DIGGING METHOD

The Ministry concluded that the termination of your **White Mussels (Donax Serra)** exploratory right in August 2019 was irregular in that it did not qualify nor follow the provision anticipated under section 41 of the Marine Resources Act, Act 27 of 2000. With support from Cabinet as in Cabinet Decision No.4th / SP / 12.05.20 / 006 to rectify irregularities of the past; I have the pleasure advising you that I herewith re-instate, for a period of four (4) years, your **White Mussels (Donax Serra)** exploratory right that was granted in terms of Section 34 of the Marine Resources Act, Act 27 of 2000 with the **digging method only**.

This exploratory right must be conducted within existing legal framework subject to the following compulsory conditions to be accepted in writing.

1. Harvesting on this exploratory right must only be carried out South of Sandwich Harbor, towards the Orange River mouth.

2. The holder of this exploratory right must identify the total area where they would conduct the exploratory work over the entire four (4) year period, draw GPS points showing this/these total

All official correspondence must be addressed to the Executive Director

harvesting area and together with the Ministry accept and pledge to perform exploratory harvesting only within the confines of this demarcated and agreed on area.

3. The holder of this exploratory right is responsible to ensure that a harvesting plan at the harvesting grounds is developed well in advance together with the Ministry's scientists before the harvesting operations commence.

4. The harvesting plan must include amongst others a detailed description of the harvesting method, tools, equipment and other implements that would be used. A daily harvesting log that contain exact indication with GPS coordinates of the area where harvesting is taking place for that day, date, time (period of harvesting) and depth.

5. This exploratory right will be deemed to have commenced once our Inspectors and Scientists and your company have agreed and signed off a harvesting plan. Signing off of the harvesting plan between the parties must be done within 12 months from the date of acceptance of this exploratory right, unless other arrangements were made with the Executive Director.

6. The holder of this exploratory right must obtain appropriate permission from the relevant authorities and or institutions for the purpose of harvesting.

7. It is the responsibility of the holder of this exploratory right to consult with other coastal environment users to avoid conflict during harvesting.

8. All equipment, tools and harvesting personnel must be labelled and marked to be easily identifiable to the holder of the exploratory right.

9. Only commercially tradable sizes of white mussels may be harvested until such time that lower and upper limits of harvestable shell sizes are determined by the Ministry.

10. In order to conduct port sampling, Inspectors being Mr. Malcolm Block and Mr. Desmond Bester at Malcolm.Block@mfmr.gov.na and Desmond.Bester@mfmr.gov.na respectively should be informed at least 24 hours prior to offloading. All harvested white mussels must be offloaded in Walvis Bay or Lüderitz under the supervision of Fisheries Inspectors.

11. The holder of this exploratory right must expect Fisheries Inspectors and or Fisheries Scientists to accompany the harvesting team/s for the purpose of data collection and other observatory duties when they so require.

12. Quarterly reports capturing scientific data that would facilitate pronunciation on biological sustainability of White Mussels (Donax Serra) must be submitted to the Executive Director 15 working days after the end of each quarter. **This report should include, amongst others, date, and time of harvesting, area GPS coordinates, depth, harvested quantities and average sizes per area.**

13. Reports on the commercial viability of White Mussels (Donax Serra) should be submitted to the Executive Director's office on a quarterly basis.

14. The Executive Director after consulting with me may amend, change or cancel any of the above conditions, or add new conditions during the course of the exploratory harvesting right.

Acceptance of this exploratory right and conditions in writing must be addressed to the Office of the Executive Director **not later than 14 working days from the official stamped date of this letter**.

Yours Sincerely,

MINISTRY OF FISHERIES AND MARINE RESOURCES
Republic of Namibia
2023 -08- 23
Private Bag 13355
Windhoek
OFFICE OF THE MINISTER

Derek Klazen, MP
MINISTER

Cc: Mr. Malvern Block, Mr. Stanley Ndara and Mr. Chris Bartholomae

Page 3 of 3

Appendix B: Public Consultation

Notified Interested and Affected Parties

Name	Organisation
Wayne Handley	Ministry of Environment, Forestry and Tourism
Jessica Kemper	Independent Consultant
Ingrid Wiesel	Brown Hyena Research Project
Carel Neethling	Sperrgebiet Diamond Mining
	Lüderitz Mariculture Company
Elishia Rusberg	Directorate of Fisheries
K. Kennedy	Ministry of Industries, Mines and Energy (Lüderitz)
Silvanus Lewis	Lüderitz Town Council
Chaze Sibeya	Ministry of Environment, Forestry and Tourism (Lüderitz)
C Losper	Sperrgebiet Diamond Mining
J Fleidl	Five Roses Aquaculture

Receipt of Notification /BID: Environmental Assessment

Environmental Assessment and Management Plan for Harvesting of the White Mussel, *Donax serra*, along the Namibian Coastline, North of Lüderitz

Privacy Block

Name & Surname	Organisation/Address	Email	Signature
Grishe Zautaer	LMC	gr	
Elishia Rusberg	Fisheries Shark Island	elis	
K. Kennedy	MIME - Luderitz	KAH	
Silvanus Lewis	Luderitz Town Council	rece	
Chaxe Sibeya	MEFT - trud	Cha	
C. Losper	SDM	Cia	
J. Fleidl	Five Roses Aquaculture	jf	

Geo Pollution Technologies
Environmental Assessment and Management Plan for Harvesting *Donax serra*
February 2026

Newspaper Advertisements

Iipinge demands ethical and hard work from regional leaders

• REGION NEEDS FOCUSED AND DETERMINED GOVERNANCE

Careful stewardship of public resources is crucial, governor says.

KENYA KAMBOWE
ENGOYI

Oshana governor Hofni Iipinge has issued a stern mandate to newly elected regional and local authority councillors, demanding a 'results-orientated mindset' to drive the region's development over the next five years.

Iipinge made the remark on Wednesday during a consultative meeting where he emphasised that leadership must be defined by professionalism and effective governance rather than personal comfort.

WORK HARD: Oshana governor, Hofni Iipinge. PHOTO: CONTRIBUTED

The meeting followed an induction workshop focused on the legal and governance frameworks that will guide the officials' new terms.

Every cent counts

Iipinge did not hold back in addressing the systemic issues that hinder progress.

He called on leaders to confront difficult truths, noting that development is frequently weakened by mismanagement, poor work ethics, absenteeism and corruption.

"Public resources are sacred," Iipinge reminded the group.

"Every dollar lost through negligence or misuse is a meal taken from a household, medicine taken from a clinic, or a classroom left incomplete." The governor outlined a comprehensive vision for the region, placing particular emphasis on economic empowerment in order to address youth unemployment by shifting from a culture of job seekers to job creators through skills development and entrepreneurship.

He also called on promoting local value addition, agro-processing and community food production projects to combat poverty. Iipinge warned against the weak project management and "silo" mentalities that have previously led to funds being returned to treasury.

He stressed that regional councils, local authorities and central government must function as a single, coordinated system.

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FAMILY LEFT REELING AFTER STRONG WINDS WREAK HAVOC

KENYA KAMBOWE
OKALUWA

A family of seven in Okaluwa village, Omuntele constituency in the Oshikoto region, are picking up the pieces after violent weather destroyed most of their homestead.

Namibian Sun visited the home of Matheus Mutaleni last week, also known as Tate Shipila, which was ravaged by the strong winds.

The incident, which occurred in the early hours of the morning last week, has left the family reeling.

Julia Malapi, Shipila's wife, recounted the terrifying ordeal, saying the winds reached their peak intensity around 03:00.

"I was fast asleep when I heard the noises of corrugated iron sheets banging," Malapi recalled.

At first, she did not realise the severity of the situation. "I thought it was just a normal disturbance of corrugated iron sheets hitting against a pole."

It was only at dawn, around 06:00, that the full extent of the damage became clear. Stepping outside, Malapi found their yard transformed into a scene of chaos.

"When I woke up, I could not believe my eyes. The house was damaged. Some of the roof sheets were in the Mahangu field. One of the shacks in the house was completely rooted out, and the corrugated iron sheets flew into the field," she said. The storm's fury did not stop at the roof.

Strong gusts tore down large sections of the yard's brick walls, leaving several brick structures exposed to the elements, their roofs completely stripped away.

Despite the extensive damage, Malapi is thankful that the family escaped physical harm.

Fortunately, the structures hit hardest were unoccupied, and none of the seven residents sustained injuries.

The destruction has placed a heavy burden on the household.

With their shelter severely damaged and the rainy season ongoing, the family is facing a daunting rebuilding process.

Malapi has issued an urgent appeal to "good Samaritans" and the wider community to assist the family to rebuild.

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Paseta Namibia sows seeds of knowledge, entrepreneurship in Okahandja

AURELIA AFRIKANER
WINDHOEK

The Pan-Africanist School of Economics, Technology and Agriculture (Paseta) continues its mission to empower African youth with practical skills and a sense of community responsibility through the launch of its back-to-school garden initiative last Wednesday at K.W. von Marëes Combined School in Okahandja.

The organisation donated a starter package of agricultural supplies valued at approximately N$5 000 to support the establishment of the school garden.

"Sometimes change begins with a seed and a hand willing to help plant it. From those humble beginnings, something powerful unfolds," Diina Mweneni Hameva Namundjebo, Paseta Namibia president, said.

"When a child plants a seed, they plant belief, hope and ownership of the soil that sustains them. That is why agriculture is one of Paseta's strongest pillars. Through soil, we teach self-reliance, responsibility and leadership," Namundjebo explained.

Starter kits

The package included gardening tools, seeds, seedlings, compost and fertilisers and essential garden equipment, enabling learners and teachers to begin planting immediately.

The initiative reflects Paseta's broader goal of nurturing confident, skilled and socially responsible young Africans who understand the value of land, knowledge and community.

By combining agriculture with entrepreneurship and practical education, learners are empowered to contribute meaningfully to their communities, strengthen families and advance Africa's long-term food security and economic resilience.

February is agriculture month at Paseta, a time dedicated to highlighting the importance of agricultural education in schools and its tangible, real-world impact.

Digging in

As part of the back-to-school garden initiative, learners are provided with hands-on workshops designed to suit their age and experience levels.

Older learners gain exposure to livestock management, crop cultivation and other agricultural disciplines, offering them a career-fair-style experience that demonstrates agriculture as a viable professional path.

Meanwhile, younger learners engage in practical instruction focused on soil preparation, compost and fertiliser creation, and the development of sustainable gardens, allowing them to apply classroom knowledge in a tangible and meaningful way.

The initiative also incorporates entrepreneurship education, allowing learners to sell crops they have grown during their school's entrepreneurship day, fostering skills in marketing, product management and financial literacy. Exceptional effort is recognised, and parents and community members are invited to celebrate learners' achievements.

Paseta Namibia is committed to expanding the programme nationwide, starting with this pilot project, and will officially launch it in Windhoek on 2 May. aurelia@nmh-hub.com.na

Diina Mweneni Hameva Namundjebo, President of PASETA Namibia at handover of starter package of agricultural supplies to support the establishment of the school garden. PHOTO CONTRIBUTED

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WEER

BINNELAND: Sonnig en baie warm oor die verre Suide, andersins gedeeltelik bewolk en warm tot baie warm met 'n paar tot geïsoleerde donderbuie maar verspreide donderbuie in Ohangwena, Oshikoto, Otjozondjupa, Khomas en Omaheke.
KUS: Gedeeltelik bewolk en matig tot warm met miskolle.
GETYE BY WALVISBAAI: **H:** 08:12 **L:** 14:27 **H:** 21:05

VOORUITSIGTE

WINDHOEK	18°	28°
RUNDU	21°	31°
OSHAKATI	20°	32°
GOBABIS	20°	34°
MARIENTAL	19°	35°
KEETMANSHOOP	20°	35°
WALVISBAAI	16°	27°
LUANDA	25°	29°
JOHANNESBURG	14°	29
KAAPSTAD	18°	26°

Namcor

VAN BL. 2

Die voorsitter het gevolglik tot die slotsom gekom dat "geen van die dissiplinêre klagtes teen die werknemer deur die werkgewer op 'n oorwig van waarskynlikhede bewys is nie. Dit volg dat al die klagtes teen hom in hierdie verrigtinge van die hand gewys word."

Die prokureurs voer aan dat dit dus sonder twyfel is dat die dissiplinêre verrigtinge teen hul kliënt *mala fide* ingestel en vervolg is, en sonder enige redelike vermoede dat hy wangedrag gepleeg of enige interne Namcor-beleid oortree het.

"Nietemin het Namcor volhard met die onoordeelkundige en merietelose dissiplinêre verrigtinge, en sodoende ons kliënt aan ernstige reputasieskade blootgestel en ernstige finansiële verliese veroorsaak ten bedrae van N$1,6 miljoen, synde die regskoste wat aan sy raadgewers betaal is," lui die prokureursbrief.

Namcor se optrede kom volgens die brief neer op kwaadwillige vervolging en dat die maatskappy ten spyte van duidelike dokumentêre bewyse van enige wangedrag met die dissiplinêre aanklagte teen Mulunga voortgegaan het.

"As 'n direkte en voorsienbare gevolg van Namcor se onregmatige handelinge en optrede, het ons kliënt regskoste aangegaan om homself tydens die dissiplinêre verhoor te verdedig. Daardie koste beloop N$1,6 miljoen, welke bedrag aan sy regsverteenwoordigers betaal is. In die omstandighede is ons opdrag om, soos ons hiermee doen, betaling in die som van N$1,6 miljoen binne sewe kalenderdae na ontvangs van hierdie brief te eis," lui die brief.

Die prokureurs het gewaarsku dat, sou Namcor versuim of nalaat om binne die voorgeskrewe tyd aan die eis gehoor te gee, hulle duidelike instruksies het om sonder verdere kennisgewing regsaksie in die hooggeregshof in te stel.

Bank Windhoek het Mulunga onlangs hoërhof toe gesleep vir N$1,39 miljoen se onbetaalde skuld. Dit poog om op sy huis in Rehoboth beslag te lê en te verkoop en ook 'n Toyota Tundra terug te neem ná beweerde volgehoue wanbetalings op sowel 'n verbandlening as 'n voertuigfinansieringsooreenkoms. Namcor se woordvoerder Utaara Hoveka het gister by navraag gesê die maatskappy het nog nie die prokureursbrief ontvang nie.

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LLPBN: Namibië het voorsorg teen BKS getref

› Hoofredaksie

Alhoewel die voortgesette voorkoms van bek-en-klouseer (BKS) in Suider-Afrika rede tot groot kommer is, benadruk die Lewendehawe- en Lewendehawe-produkteraad van Namibië (LLPBN) dat streng voorsorgmaatreëls reeds in plek is om Namibië te beskerm.

Dr. Anja Boshoff-De Witt, die LLPBN se hoof vir gehalteversekering, het bevestig Namibië het toegang tot entstowwe om vee teen BKS in die noordelike siektebeheersones in te ent.

"Ons kry ook ons entstof van die Botswana-entstofinstituut," het sy verlede week aan Agri Monitor gesê.

Namibië het verlede jaar 3,8 miljoen entstofdosisse teen BKS ter waarde van N$60,7 miljoen van die enstofinstituut in Botswana ontvang.

NOODVOORRAAD

Volgens Namibië Landbounie (NLU) beskik die direktoraat veeartsenydienste (DVS) oor 'n omvattende gebeurlikheidsplan wat onmiddellik geïmplimenteer sal word indien 'n uitbreking voorkom.

"'n Noodvoorraad met alle nodige toerusting is reeds gevestig en kan vinnig landswyd in die land ontplooi word. Belanghebbendes soos die Namibiese weermag (NDF), polisie, produsente en die private sektor vorm almal deel van hierdie gekoördineerde reaksiespan."

Die NLU maan hoewel waaksame en proaktiewe maatreëls noodsaaklik is om Namibië se BKS-vrye status te handhaaf, moet die situasie kalm en verantwoordelik hanteer word.

Die organisasie moedig alle belanghebbendes aan om nugter te bly, paniek, gerugte en waninligting te vermy en ontwikkelings binne hul onderskeie konteks te beskou.

Vir die NLU is dit belangrik om die risiko wat dit vir die vee, bestaansmiddele en die breër ekonomie van Namibië inhou, te erken, maar "alhoewel BKS steeds in dele van Suider-Afrika voorkom, is dit belangrik om daarop te let dat Namibië, insluitend beide die beskermings- en besmette sones, vry van die siekte bly," lui die NLU se jongste nuusbrief.

"Die BKS-vrye sone suid van die veeartsenykundige kordonheining (VCF) word tans omring deur gebiede wat nie 'n onmiddellike bedreiging inhou nie."

BOTSWANA

Botswana het 'n bevestigde geval langs sy oostelike grens met Zimbabwe aangemeld, "soortgelyk aan 'n uitbreking wat ongeveer twee jaar gelede plaasgevind het," sê die NLU.

Hierdie gebied is geïsoleer en die oorblywende BKS-vrye sones bly onaangeraak. Alle veebeweging binne Botswana is ook opgeskort.

"'n Uitgebreide gedeelte van die Namibië-Botswana grens is deur die direktoraat veeartsenydienste (DVS), met ondersteuning van die LLPBN, geëlektrifiseer om dierebeweging en kontak tussen die lande te voorkom."

Tot dusver is geen gevalle van BKS in die Noord-Kaap-provinsie van Suid-Afrika, wat aan Namibië grens, aangemeld nie.

"Toe die eerste gevalle in Suid-Afrika geïdentifiseer is, het Namibië onmiddellik opgetree en verskerpte grens-biosekuriteitskontroles ingestel om te voorkom dat die virus die land inkom," verseker die NLU.

Onder meer mag geen diereprodukte sonder 'n geldige permit Namibië ingebring word nie en alle besoekers moet enige sodanige produkte verklaar, wat indien nodig gekonfiskeer en vernietig kan word.

Dr. Anja Boshoff-De Witt
FOTO VERSKAF

Verder word die sole van reisigers se skoene by grensposte en lughawens ontsmet en die onderstelle, modderskerms en bande van alle voertuie word ontsmet.

"Die BKS-virus kan vir lang tydperke in organiese materiaal soos modder of mis oorleef, wat hierdie maatreëls noodsaaklik maak."

By grensposte soos Noordoewer en Ariamsvlei werk owerhede, met die ondersteuning van die private sektor, aan meer permanente ontsmettingsprosesse met veelvuldige stappe, volgens die NLU.

GROOTSTE RISIKO OP PLAASVLAK

Boshoff-De Witt benadruk elke produsent speel 'n belangrike rol om die land se siekte-vrye status te beskerm.

"Boshoff-De Witt waarsku dat die grootste risiko dikwels op plaasvlak lê. Reisigers wat hoërisiko-gebiede in Suid-Afrika besoek het, veral plase, veilings of voerkrale, kan onwetend die virus op hul skoene, klere en selfs in hul lugweë dra en die siekte versprei," lui die nuusbrief.

"Daarom behoort enige reisiger na Namibië, of terugkerende burgers wat hoërisiko-gebiede besoek het, waaksaam te wees om te ontsmet en direkte kontak met vee vir minstens vyf tot sewe dae te vermy.

"Boshoff-de Witt raai boere aan om geskikte klere en skoene te gebruik wanneer hulle met diere werk en dit gereeld te ontsmet."

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PUBLIC PARTICIPATION NOTICE
ENVIRONMENTAL ASSESSMENT: HARVESTING OF THE WHITE MUSSEL (*DONAX SERRA*), ALONG THE NAMIBIAN COASTLINE, NORTH OF LÜDERITZ

Geo Pollution Technologies (Pty) Ltd (GPT) was appointed by Citygate Trading CC (the Proponent) to undertake an environmental assessment (EA) for the harvesting of white mussels (*Donax serra*) and the establishment of a temporary workers camp in the //Tsau Khaeb (Sperrgebiet) National Park. The operation of their seafood processing facility in Lüderitz will also be assessed. The Proponent holds a harvesting right for mussels and earmarked a defined section of coastline north of Boat Bay, where mussels will be harvested by hand and then transported to Lüderitz. At the Lüderitz processing facility, mussels will be received, depurated, packaged, and exported alive to international markets. Additional and location information pertaining to project can be obtained at:

http://www.thenamib.com/projects/projects.html

The environmental assessment will be 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. Requests for information and comments and concerns can be submitted to Geo Pollution Technologies by 23 February 2026.

André Faul
Geo Pollution Technologies
Tel: +264-61-257411
Fax: +264-88626368
E-Mail: mussel@thenamib.com

EDITORIAL

The gender ministry says it has set aside N$600 000 to work with the media on reporting gender-based violence. This is commendable in a country gripped by desperation, where the government and stakeholders continue to search for solutions to a crisis they admit they do not fully understand.

In 2013, then-President Hifikepunye Pohamba called for a national day of prayer against gender-based violence, appealing to the nation's conscience and faith. Laws were strengthened, task forces were formed, awareness campaigns multiplied, and the annual 16 Days of Activism became a fixture on the national calendar. Shelters were opened, slogans were coined, and strategies were rewritten.

Yet the violence persists, often with greater brutality and frequency. Well-intentioned interventions treated symptoms rather than causes.

Prayer did not alter power dynamics inside homes. Campaign posters left poverty, alcohol abuse, unresolved trauma, or the quiet normalisation of control and entitlement intact. Violence is not only a legal or moral failure; it is a social one.

Until Namibia confronts how boys are raised, how conflict is resolved, how inequality is lived daily, and how silence protects perpetrators, no budget line or campaign theme will be enough.

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Shiweda

Continued from page 1

Hundreds of mourners gathered to pay their final respects to a woman widely regarded as a symbol of integrity and courage in the face of intimidation.

In recognition of her steadfast refusal to yield to criminal pressure and her commitment to upholding the rule of law, Shiweda was given a state-funded funeral.

'Horrific and senseless'

Speakers at the memorial and burial services were united in calling for tougher sentences for those responsible and stronger state protection for officials tasked with upholding justice.

In a speech read on her behalf by Prime Minister Elijah Ngurare, Nandi-Ndaitwah said Shiweda's "horrific and senseless" death had shaken the nation's collective conscience.

She reaffirmed government's commitment to bringing the perpetrators to justice, describing accountability as the greatest tribute the country could pay to Shiweda's memory.

"We must never allow criminality, intimidation or violence to weaken the administration of justice," Ngurare said on behalf of the president, stressing that the nation depends on the courage of its legal professionals.

Attack on system

Addressing mourners, Chief Justice Peter Shivute described the attack as an assault that went beyond personal tragedy.

"When an officer of the court is harmed while carrying out lawful duties, it is not merely an attack on an individual. It is an attack on the system of justice that protects us all," Shivute said.

He warned that the administration of justice cannot be dictated by violence or intimidation and urged a resolute response to safeguard the integrity of the legal system.

Inspector-General of the Namibian Police, Joseph Shikongo, issued a stern warning to those who target public servants, vowing that the police remain fully committed to a thorough investigation.

He said the collective resolve of the justice system to uphold safety and the rule of law would not be deterred by violence against officers and officials.

Acting Prosecutor-General Martha Imalwa also called for stronger measures to protect court officials, urging prosecutors to continue their work with courage and without fear so that justice may prevail.

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Health

Continued from page 1

More than 76% of the population now lives within 10 kilometres of a health facility, reflecting long-term investment in clinics, health centres and outreach services, particularly in rural areas.

Most public health services are provided free of charge or at nominal fees at the point of use, keeping out-of-pocket spending at around 8% of total health expenditure.

This level of protection helps prevent illness from pushing people into poverty, Ithindi noted.

Life expectancy has risen from 47 years in 2000 to 56 years by 2019. Namibia has also achieved HIV epidemic control under the 95 95 95 targets – a globally recognised milestone.

The country has been certified for the elimination of mother-to-child transmission of HIV and hepatitis B. Maternal and child mortality rates have declined, supported by expanded immunisation and communicable disease programmes.

Despite these gains, Ithindi acknowledged persistent gaps in the quality of care, availability of medicines, access to non-communicable disease and mental health services, and equitable access to specialised care for remote communities.

The health ministry has completed facility readiness and baseline assessments to guide targeted investments.

Standardised care programmes are being rolled out, while a customer service charter launched in 2025 aims to strengthen accountability and improve the patient experience across public facilities.

Training output

Ithindi said staffing strategies are being aligned to UHC priorities, with filling critical vacancies, incentivising service in rural and hard-to-staff areas, expanding in-service training and aligning training outputs with service needs prioritised.

A costed UHC implementation action plan sets out spending for the first five years, while reforms are underway to align budgets with an essential health services package and shift towards programme-based budgeting and strategic purchasing.

A key reform under consideration is the establishment of a national health equity fund, intended to mobilise additional domestic resources and strengthen solidarity financing.

Ithindi said legislative work is also underway, with a proposed UHC Bill being developed to translate constitutional principles into clear legal entitlements, financing mechanisms and accountability structures aligned with existing health and social security laws.

"The focus now is execution," he said. "The investment must translate into reliable, accessible and quality care for all Namibians."

The government has confirmed that public hospitals will be upgraded to operate at standards comparable to private facilities under UHC reforms outlined in Swapo's 2025–2030 implementation plan, which takes effect in April this year.

Refined vision

Health minister Esperance Luvindao, in a ministerial statement issued on 4 February, said government is confident that selected public hospitals will be ready to implement the Vision April 2026 directive.

"Vision April 2026 is not an abstract policy aspiration but a structured and evidence-driven reform initiative with clear timelines, defined priorities, and measurable milestones," she said.

Luvindao said implementation would follow "a phased and targeted approach, rather than a blanket rollout across all facilities at once".

Priority will be given to hospitals that have demonstrated readiness in terms of infrastructure, staffing and management capacity, the minister added.

She said two intensive care units are fully functional at Katima Mulilo District Hospital and Keetmanshoop District Hospital, while additional ICU infrastructure is under construction at Oshakati, Onandjokwe, Rundu, Gobabis and Mariental.

In terms of staff shortages, Luvindao said recruitment has been accelerated.

"Between April 2025 and February 2026, a total of 2 397 health professionals were appointed," she said.

"These measures demonstrate the ministry's commitment to addressing current staffing shortages, strengthening specialised medical capacity, and ensuring that the health system is adequately staffed."

GBV

Continued from page 1

"Issues such as GBV and violence against children require sensitivity," Shililifa said, stressing that structured collaboration and training are needed to strengthen reporting practices across the media sector.

She raised concern about coverage that includes uncensored images of victims or people linked to active investigations, noting that such reporting can compromise cases, retraumatise survivors and distort public understanding.

A policy implementation plan presented at the meeting shows the training programme will focus on gender analysis, ethical reporting standards and responsible coverage of gender-related issues, positioning journalists as key partners in national prevention efforts rather than passive observers.

The information ministry said while many journalists already report responsibly, ongoing capacity building is essential to promote accuracy, empathy and ethical decision-making in reporting on sensitive crimes.

"Poorly handled stories can spread misinformation and weaken national efforts to address violence and inequality," the ministry said, adding that strengthening media professionalism is now viewed as a strategic intervention in itself.

Protecting vulnerable groups

Under the revised approach, the ministry will lead the media, research, information and communication cluster in partnership with the gender ministry, engaging both state-owned and private media houses, including regional journalists.

Officials emphasised that the initiative is not intended to curtail press freedom, but to strengthen ethical standards and protect vulnerable groups. Responsible journalism and press freedom must coexist, with the media recognised as a central pillar in national development and social protection efforts, the government team said.

Funding arrangements between the two ministries are still being finalised, but officials confirmed the programme forms part of broader efforts to align Namibia's communication practices with national and international commitments on gender equality.

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WEER

WEERWAAK: Erge donderstorms kan oor die binneland voorkom met moontlike kitsvloede. **BINNELAND:** Gedeeltelik bewolk en warm tot baie warm, met wydverspreide donderbuie en reën oor die Zambezi, Kavango-Oos en -Wes, Oshikoto, Ohangwena, Otjozondjupa, Omaheke, Hardap, en ǁKharas. Elders kan enkele tot geïsoleerde donderbuie en reën voorkom. **KUS:** Gedeeltelik bewolk en matig met miskolle aanvanklik.

VOORUITSIGTE

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WALVISBAAI	13°	25°
LUANDA	23°	28°
JOHANNESBURG	15°	29°
KAAPSTAD	14°	25°

Shiweda as heldin begrawe

Honderde roubeklaers het hul laaste eer aan wyle Justine Shiweda betoon. FOTO'S KENYA KAMBOWE

VAN BL. 1

By die begrafnis van die beheeraanklaer van Ondangwa is 'n sterk beroep op strenger strawwe en 'n benadering van geen verdraagsaamheid teenoor misdaad gedoen.

Shiweda is op 17 Oktober 2025 aangeval toe op haar geskiet en suur oor haar liggaam gegooi het.

Daar word beweer dat die aanval op Shiweda verband hou met haar werk as aanklaer ná 'n poging om haar in 'n borgtogsaak om te koop.

Ná sy maande lank om haar lewe geveg, het sy op 7 Februarie aan haar beserings in die private hospitaal Lady Pohamba in Windhoek beswyk.

Saterdag het honderde roubeklaers na die Onambango-nedersetting in die Oshanastreek hul laaste eer aan wyle Shiweda betoon toe sy tydens 'n waardige, staatsbegrafnis ter ruste gelê is.

Die beheeraanklaer van Ondangwa is Saterdag by die Onambango-nedersetting ter ruste gelê.

Tydens die gedenk- en begrafnisdiens het verskillende sprekers egter 'n soortgelyke eis gedeel: 'n Beroep op strenger vonnisse vir die oortreders en dat die regering meer moet doen om die lewens te beskerm van dié wat toevertrou is om die oppergesag van die reg te handhaaf.

Hoofregter Peter Shivute het in sy toespraak die aanval op Shiweda as meer as net 'n persoonlike tragedie geskets.

Hy het dit as 'n regstreekse aanslag op die Namibiese staat bestempel.

"Wanneer 'n beampte van die hof skade ly terwyl hy of sy wetlike pligte uitvoer, is dit nie bloot 'n aanval op 'n individu nie. Dit is 'n aanval op die stelsel van geregtigheid wat ons almal beskerm," het Shivute gesê.

Hy het beklemtoon dat die uitvoer van regspligte nie deur geweld of intimidasie voorgeskryf kan word nie en het 'n standvastige reaksie geëis om die integriteit van die hele regstelsel te beskerm.

Die gevoel is deur president Netumbo Nandi-Ndaitwah in haar toespraak beaam, wat deur eerste minister Elijah Ngurare, voorgelees is: "Shiweda se grusame en sinlose doodhet die nasie se gesamentlike gewete geskud."

'GROOTSTE HULDEBLYK'

Die president het die regering se verbintenis herbevestig om te verseker dat die oortreders voor die gereg gebring word en dit beskryf as die "grootste huldeblyk" wat die land aan haar nagedagtenis kan bring.

"Ons moet nooit toelaat dat misdaad, intimidasie of geweld regspleging verswak nie," het sy benadruk.

Die president het gesê die nasie maak op die dapperheid van sy regshui staat.

Die inspekteur-generaal van die Namibiese polisie, luitenant-generaal Joseph Shikongo, het ook 'n streng waarskuwing gerig teen dié wat staatsamptenare teiken.

Hy het belowe dat die polisie ten volle verbind is om te verseker dat 'n deeglike en omvattende ondersoek gedoen word.

Shikongo het verder beklemtoon dat die gesamentlike vasberadenheid van die regstelsel om veiligheid en die oppergesag van die reg te handhaaf, nie afgeskrik sal word deur dade van geweld teen staatsamptenare nie.

Waarnemende aanklaer-generaal, Martha Imalwa, het ook die gevoelens gedeel van dié wat vra dat meer gedoen word om die lewens van hofamptenare te beskerm.

Imalwa het ook 'n beroep op aanklaers gedoen om die moed te hê om hul werk sonder vrees voort te sit en te verseker dat geregtigheid bly seëvier.

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Hoofveearts

VAN BL. 1

Na 'n interne vergadering van die NLU-bestuurskomitee op 4 Februarie is verskeie belangrike besluite geneem om Namibië se aktiewe reaksie te versterk om die land teen só 'n ramp soos in Suid-Afrika te beskerm.

Hierdie veranderinge is daarop gemik om kommunikasie te bevorder, samewerking oor sektore heen te versterk en te verseker dat die NLU-kantoor optimaal toegerus is om die uitdagings vorentoe te hanteer.

BKS-FONDS GESTIG

'n Ondersteuningsfonds, die FMD Support Fund, wat 'n onafhanklike entiteit is, is 'n gesamentlike poging tussen die vier Namibiese landbouunies – die Namibië Nasionale Boere-unie (NNFU), die Namibiese Ontluikende Kommersiële Boerevereniging (Necfu) en die Boere-unie vir Voorheen Benadeelde Kommersiële Boere (PDCFU) en die NLU – tesame met die DVS, LLPBN en belangrike private rolspelers, volgens die jongste weeklikse nuusbrief van die NLU.

Pretorius het gesê die fonds funksioneer onder die bekwame bestuur van dr. Ingrid Henckert-Weissnar van Namibia Health Risk Solutions wat 'n reuse-rol tydens die Covid-19-pandemie gespeel het.

Die komitee het beklemtoon dat BKS 'n nasionale kwessie is wat verskeie bedrywe raak, insluitend vark-, pluimvee-, suiwel- en ander kommoditeite.

"Om dié rede is dit noodsaaklik dat die reaksie onder die breër landbousektor gekoördineer word eerder as om dit as 'n geïsoleerde uitdaging te hanteer," lui die nuusbrief.

Die Landbouprodusente-organisasie (LPO) se voorsitter, Jako van Wyk, en Dawie Kok sal voortgaan om as sameroepers van die BKS-operasies te dien en saam met Henckert-Weissnar die leiding neem met die koördinering van die operasies en die voortgesette reaksie. Rina Hough sal Henckert-Weissnar met BKS-verwante verantwoordelikhede bystaan. Leigh-Ann Nehoya, die NLU se senior kommoditeitsanalis, sal saam met bykomende aangestelde personeel verantwoordelik wees vir alle kommoditeite.

"Dit is belangrik om te beklemtoon dat die NLU nie in 'n posisie is om produsente te voorsien van opdragte oor die vermindering of verkoop van vee nie.

"Alle boere behoort hul eie risikoprofiel te bepaal in oorleg met hul veearts, finansiële bestuurder en volgens die spesifieke omstandighede kommoditeite," benadruk die NLU. - Bykomende bron: NLU

- jacques@nmh-hub.com.na
- francoise@nmh-hub.com.na

Twee beeskarkasse is agter in die Volkswagen Polo gelaai. FOTO VERSKAF

Twee 'beesslagters' vasgetrek

VAN BL. 1

Boere in die omgewing wes van Windhoek gaan erg gebuk onder vee- en wilddiefstal en talle klagtes is al oor die gebrek aan die doeltreffendheid van die Kupferberg-padblokkade by polisiehoofde gemaak. Intussen gaan daar weer 'n vergadering met hoëlui in polisie wees om kameras by die padblokkade te installeer nadat polisiemanne glo Woensdag weer geld van Duitse toeriste geëis het.

Registered Interested and Affected Parties

Name	Organisation	Date Registered
Simeon Namweya	EIA Tracking and Monitoring in Namibia (EIA Tracker)	25 Feb 2026
Claudine Losper	Sperrgebiet Diamond Mining	27 February 2026
Carel Neethling	Sperrgebiet Diamond Mining	27 February 2026
Frank Löhnert	Private	10 February 2026
K. Kennedy	Ministry of Industries, Mines and Energy (Lüderitz)	24 Feb 2026
Rudolf Dausab	Living On The Edge	24 Feb 2026

Comments and Responses

Comment	Response
From: Ms Kennedy (MIME) **Date: 24 Feb 2026**	
REPUBLIC OF NAMIBIA MINISTRY OF INDUSTRIES, MINES AND ENERGY Tel.: +264 63 203583 Fax: +264 63 203579 E-mail: Katrina.Kennedy@mime.gov.na Website www.mime.gov.na P. O. Box 934 LUDERITZ Enquiries: Mrs. Kennedy Reference: 19/1 RE: FORMAL OPINION – Environmental Scoping Assessment and EMP for the Harvesting of White Mussel (Donax serra) North of Lüderitz **Dear Mr., Faul,** We refer to the Background Information Document dated 05 February 2026 regarding the application for an Environmental Clearance Certificate (ECC) for the proposed mussel harvesting, temporary camp establishment, and processing operations north of Lüderitz by Citygate Trading CC. While we note the approval granted by the Ministry of Environment, Forestry and Tourism (MEFT) for the establishment of accommodation facilities, this office hereby formally objects to the proposed operations as currently outlined. Furthermore, we emphasise that formal input and consultation with the relevant mining concession holders, as well as tourism concession holders operating within the affected area, is essential and must be duly considered as part of the assessment process. Our objection is based on the following grounds: **1. Conflict with Shallow Mining Operational Plans** The proposed temporary camp structures and associated operational footprint do not align with the Shallow Mining Operational Plans that have already been submitted to and are currently under review by this office. Approval of additional structures and activities within the same geographical footprint may compromise the integrity, planning, and future implementation of these mining operations. As such, this office cannot support or approve developments that are not aligned with the pending mining operational framework. **2. Land Use and Concession Integrity** Mining concession rights within the affected area carry legally binding obligations and operational requirements. These operations are governed by the provisions of the Diamond Act 13 of 1999, which impose strict access control, safety, and security measures. All official correspondence must be addressed to the Executive Director.	Your letter is well received. With reference to the letter, the following. To aid us in getting a better understanding I would like to get information on the following; 1. Is the shallow mining plans as submitted to your office part of ML 46 of Sperrgebiet Diamond Mining and Namdeb? Or is it part of ML32 of Diamond Fields and NDC? 2. Has an environmental impact assessment been conducted for the shallow mining? If yes, can you please share this with us to enable us to align our EIA with theirs? Once I have this information I can advise my clients on the best way forward with the process.

The introduction of temporary camps and expanded third-party activities within mining concession areas may: • Compromise controlled access requirements. • Create operational and security risks. • Undermine concession integrity; and • Interfere with mandated compliance measures. Mining concession holder consent and formal alignment are therefore prerequisites before any additional land use activities are considered. **3. Status of Current Operations** For clarity, this office has no objection to the harvesting and processing operations currently in place. We support the continuation of existing authorised activities, provided that: • Reporting continues strictly in its current format and frequency; and • No expansion into the contested areas identified in the new Scoping Report takes place until full alignment with the Shallow Mining Operational Plans has been achieved and formally approved. In conclusion, our objection is limited to the proposed expansion and establishment of additional infrastructure within areas that conflict with pending shallow mining operations. Until proper alignment, consultation, and formal agreement are secured, this office maintains its objection to the project in its current proposed form. Yours sincerely, Ministry of Industries, Mines and Energy Chief Diamond Inspector 24 FEB 2026 Department: Diamond Affairs P.O.Box 914 Lüderitz 23016 Official Katrina Kennedy Chief Diamond Inspector Luderitz Field Operations	
Shallow water mining plans are not yet submitted but was discussed around the table for future. Both ML46 and ML32 SDM also shown interest in other minerals in ML46, this is also for future plans. Our office do not receive EIA's...it is the baby of mining and MEFT.. Unfortunately, I will not be able to elaborate more because I did respond on their survey request.	Noted. The Proponent must engage with both ML46 and ML32 and reach agreements, if not already in place.

Comment	Response
From: Mr Rudolf Dausab (Living On The Edge) **Date: 24 Feb 2026**	
Dear Sir I wish to tender my interest as an affected Concession Rightholder of the Northern Sand Sea Concession operating north of Luderitz and would like to understand how this project would influence my company Living On The Edge's operations. According to provided information your operations are right within the area of my concession and is going to have an impact my tourism operations as the unspoilt beaches are the main attraction the concession presents to our clients. According to the concession contract the concessionaire must be informed of any activity planned within the concession area. Please provide us with more information as this is crucial for our operations. Bellow my details: Mr. Rudolf Dausab	Thank you for your mail and I will register you as affected party for the project. Can you possibly share your concession contract and area boundaries with us so that we have all the information to address your concern? In the meantime, attached the background information document regarding the project. More information will be shared once we had time to address your concern in detail.
From: Mr Rudolf Dausab (Living On The Edge) **Date: 12 Mar 2026**	
I am aware of the provisions made in the contract especially research related activities within the same concession area. It is also very disturbing to realize the line ministries are not talking to each other when it comes to this very important conservation matters.as well as potential income generating business opportunities. The concession contract attached makes provision for exclusivity regarding the tourism operations. Hence, our products are sold as exclusive unspoiled, pristine eco systems which is a major selling point of this area due to its status as the "Sperrgebiett for over 100 years and proclaimed as the Tsau //Khaeb National Park. At this point not knowing how these developments might impact our tourism operations and marketing of the product as an exclusive unspoiled area might result in clients interpreting our marketing as misleading. The increase in vehicle movement in the concession area will contribute to the misconception if not handled with care. Having raised the above concerns it would be of importance to find a way to: 1. mitigate the potential impact these operations might have on the tourism operations and our clients. 2. The proposed temporary camp within concession area must be clarified as this will for sure affect the quality of the tourism product we market and sell. 3. The area to be identified for the camp site construction and the size thereof to be clearly mark for input. 4. The proposed harvesting area for white mussel must be clarified hoping to limit visual impact as the area is sold as "pristine and untouched". 5. Whether any provision will be made in terms of compensation for the loss of value due to the loss of status as a pristine, unspoiled and untouched product sold to clients. In case the study indicates positive result.	The concession contract defines a concession as “the restricted and non-exclusive rights to conduct tourism activities…” Therefore, since it is a non-exclusive right, other activities may be allowed at the discretion of the concessor, which is the Ministry of Environment, Forestry and Tourism. Please refer to the map below, indicating the concession roads as green lines, and the proposed location of the campsite. The campsite is not close to the concession road (> 4 km away) and more than 5 km south of Anichab Pan. It will mostly be hidden from the view of any tourist activities. Only very small sections of the harvesting area will be targeted at a time. The Proponent should coordinate with you, so that, when you take tourists to the area, they harvest towards the southern end of the harvesting area (out of view from Anichab Pan). Harvesting in the north can be conducted on days when no tours take place. See the EMP for further mitigation measures which will ensure low visual impact and disturbance of the area.

For more information please contact me on the following number 081#######. I hope this finds you well. Best Regards Rudolf Dausab Living on the Edge cc	

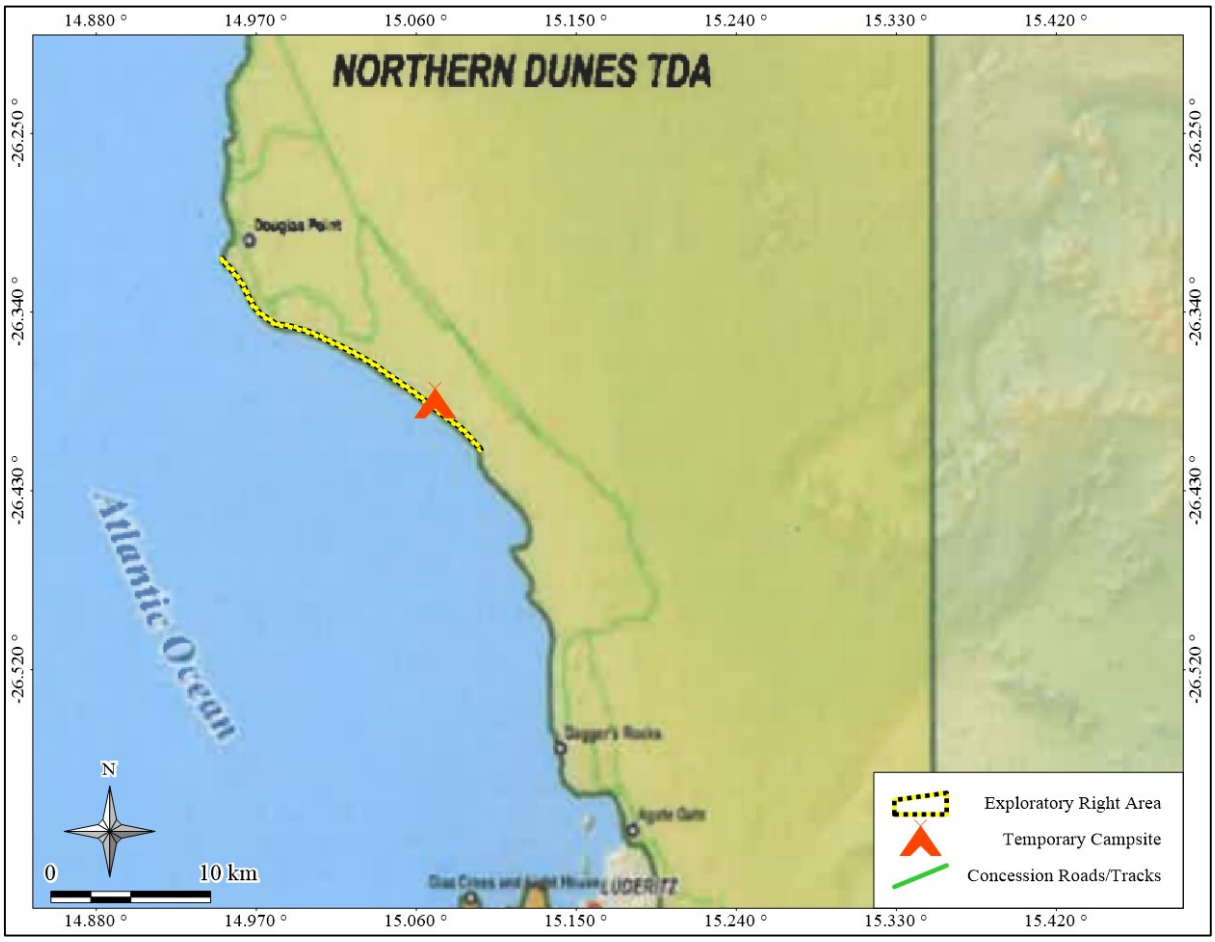

Figure 11-1 Project components in relation to concession roads

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 270 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	:	24
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 - LSM	OSH-Med, 2022
Basic Industrial Fire Fighting	OSH-Med, 2022

PROFESSIONAL SOCIETY AFFILIATION:

Environmental Assessment Professionals of Namibia (Practitioner and Executive Committee Member)

AREAS OF EXPERTISE:

Knowledge and expertise in:

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

EMPLOYMENT:

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

PUBLICATIONS:

Publications:	5
Contract Reports	+270
Research Reports & Manuals:	5
Conference Presentations:	1