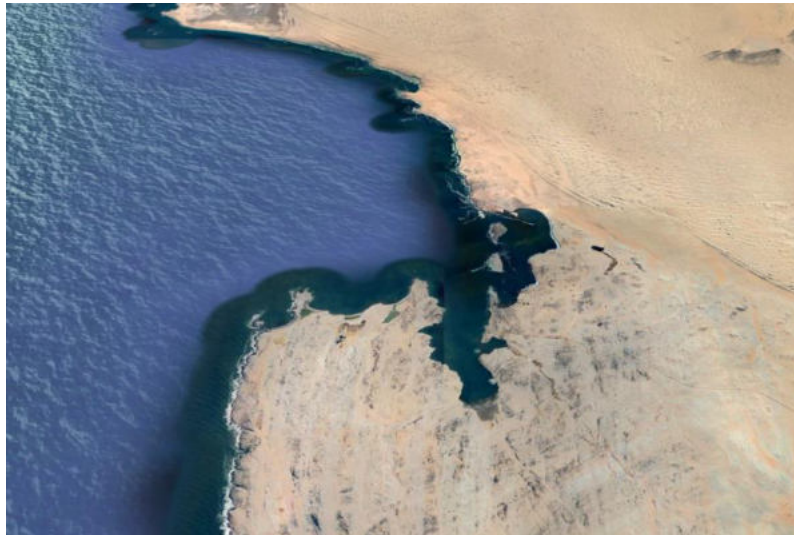


APP-002094

**COLLECTION OF BEACH CAST SEAWEED IN AND AROUND
LÜDERITZ INCLUDING IN THE TSAU //KHAEB (SPERRGEBIET)
NATIONAL PARK, //KARAS REGION**

UPDATED ENVIRONMENTAL MANAGEMENT PLAN




Assessed by:



Assessed for:

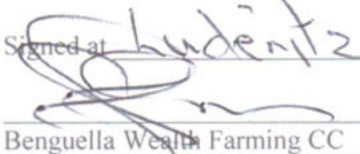
**Benguella Wealth
Farming CC**

September 2023

Project:	COLLECTION OF BEACH CAST SEAWEED IN AND AROUND LÜDERITZ INCLUDING IN THE TSAU //KHAEB (SPERRGEBIET) NATIONAL PARK, //KARAS REGION: UPDATED ENVIRONMENTAL MANAGEMENT PLAN	
Report Version/Date:	Final September 2023	
Prepared for: (Proponent)	Benguella Wealth Farming CC PO Box 1042 Lüderitz	
Lead Consultant	Geo Pollution Technologies (Pty) Ltd PO Box 11073 Windhoek Namibia	TEL.: (+264-61) 257411 FAX.: (+264) 88626368
Main Project Team:	André Faul (B.Sc. Zoology/Biochemistry); (B.Sc. (Hons) Zoology); (M.Sc. Conservation Ecology); (Ph.D. Medical Bioscience) Quzette Bosman (BA. Geography/Sociology); BA. (Hons) Environmental Management	
Cite this document as:	Bosman Q, Faul A; 2023 September; Collection of Beach Cast Seaweed in and around Lüderitz including in the Tsau //Khaeb (Sperrgebiet) National Park, //Karas Region: Updated Environmental Management Plan.	
Copyright	Copyright on this document is reserved. No part of this document may be utilised without the written permission of Geo Pollution Technologies (Pty) Ltd.	
Report Approval:	 <small>Benguella Wealth Farming CC Lüderitz EMR</small> André Faul Environmental Scientist	

I J. L. Erasmus, acting as a representative of Benguella Wealth Farming CC hereby confirm that I approve the updated Environmental Management Plan as presented in this document. All material information in the possession of the Proponent that reasonably has or may have bearing on the issuing of the ECC was provided to the consultant.

Signed at Lüderitz on the 11th day of September 2023.


 Benguella Wealth Farming CC

CC/2019/07264
 Company Registration Number

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1 INTRODUCTION

Benguella Wealth Farming CC (the Proponent) has an existing environmental clearance certificate (ECC 001040) (Appendix A) for the collection of beach cast (washed-out) seaweed at selected locations around Lüderitz and in the //Tsau Khaeb (Sperrgebiet) National Park), between Agate Beach and Grosse Bucht (Figure 1-1). Seaweed, or macroalgae, has a variety of uses including food for human consumption, production of gelling and thickening agents, growth media in laboratories (agar), fertilizers and animal feed. The Proponent has an existing processing facility in Lüderitz where the seaweed is dried, milled into a powder, bagged and stuffed into a container for shipment to existing international clients.

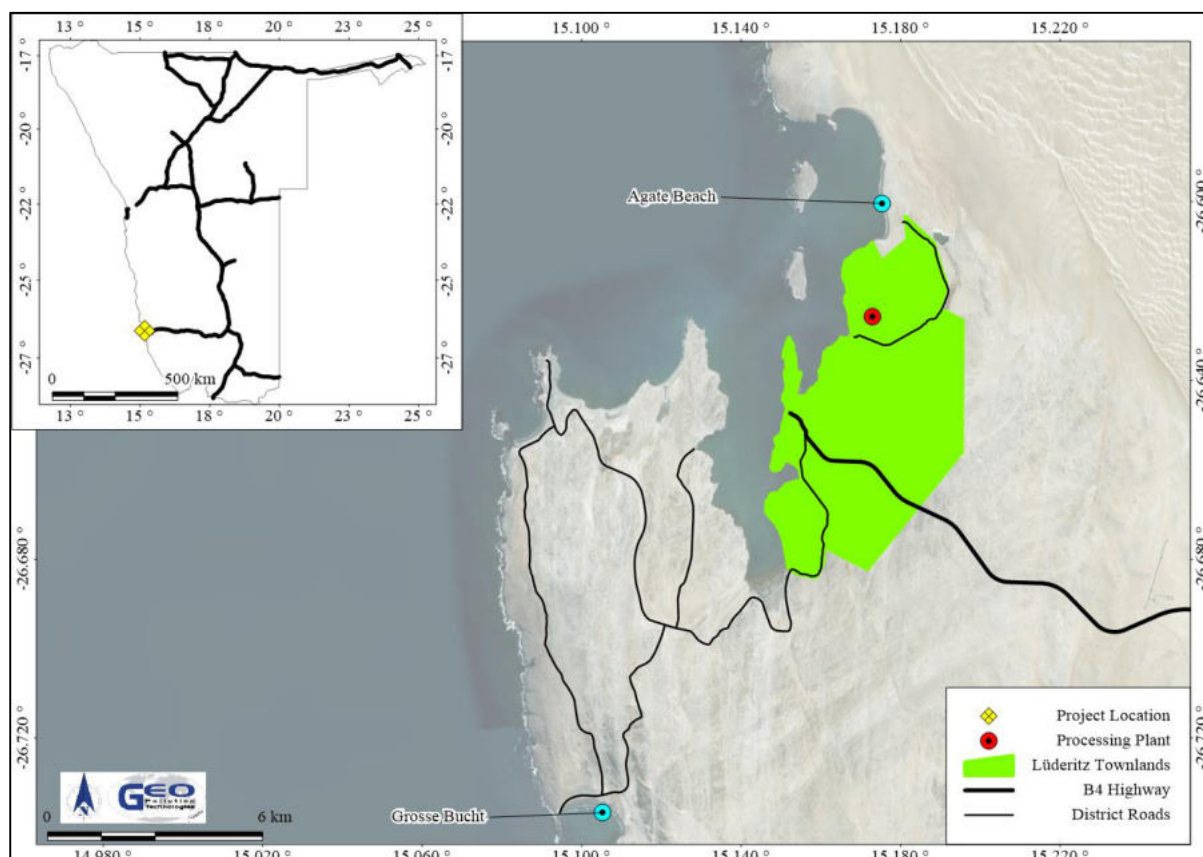


Figure 1-1 Project location

The Proponent requested Geo Pollution Technologies (Pty) Ltd (GPT) to apply for the renewal of their ECC for the collection of seaweed at Lüderitz. A renewal application is required as per the Environmental Management Act No. 7 of 2007 (EMA). In support of the ECC renewal application, an updated environmental management plan (EMP) will be submitted to the Ministry of Environment, Forestry and Tourism's (MEFT) Directorate of Environmental Affairs (DEA). The EMP is based on the environmental impact assessment conducted for the proposed facility in 2020 (Faul and Coetzer, 2023). The EMP provides management options to ensure impacts of the seaweed collection and processing project, 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 EMP acts as a stand-alone document, which can be used during the various phases (planning, construction, operational and decommissioning) of any proposed activity or development.

All contractors and sub-contractors taking part in project should be made aware of the relevant sections of the EMP, so as to plan the relevant activities accordingly in an environmentally sound manner.

The objectives of the EMP are:

- ◆ to include all components of the various activities of the project;

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

2 DEVELOPMENT AND OPERATIONS

2.1 THE PROPONENT

Benguella Wealth Farming was registered as a closed corporation in Namibia in 2019. Ownership is 100% Namibian with more than twenty years' experience in the mariculture industry at Lüderitz and in South Arica, with 30% ownership being a community trust consisting of previously disadvantaged Namibians.

2.2 SEAWEED COLLECTION

Algae is a collective term for a wide variety of organisms from different taxa. Seaweed refers to a subset of algae, consisting of the marine macroalgae. It is divided into chlorophytes (green algae), rhodophytes (red algae) and phaeophytes (brown algae), and has several uses that ranges from food for human consumption, production of gelling and thickening agents and growth media in laboratories (agar) to fertilizers and animal feed in the agricultural industry.

Seaweed, which has been dislodged by wave action and washed ashore (beach cast seaweed), is collected at and around Lüderitz. Based on the recommendations by the Ministry of Fisheries and Marine Resources (MFMR), the species collected are split-fan kelp (*Laminaria pallida*) and sea bamboo (*Ecklonia maxima*).

Seaweed collection is only in line with the conditions as supplied by the MFMR. The current conditions are provided in (Appendix C). These conditions are periodically reviewed and may change from time to time.

In short, the current conditions limit collection to sandy beaches and with one four wheel drive vehicle and trailer only. Collection must be by hand and no mechanical means may be used. Collected seaweed is taken to the Proponent's erf in the industrial area of Lüderitz where it is processed.

Original targeted areas were sandy bays between Agate Beach and Grosse Bucht as indicated in Figure 1-1. However, the possibility to collect seaweed south to Elizabeth Bay as well as north of Agate Beach is possible and can be performed in consultation with the MFMR, MEFT and the respective mining rights holders of these areas.

The seaweed processing plant is on erf 749 in the industrial area of Lüderitz (Figure 2-1). At the processing plant, the seaweed will be left in the sun to dry completely, after which it will be milled into a powder. The powder is placed in bags which are loaded into shipping containers, and once enough product is produced the containers are shipped via the Port of Lüderitz.

The Proponent has an established market in China who utilizes the seaweed for industrial purposes only. It will not be utilized for human food or animal feed. There requirements are that the seaweed be sun dried to 13% moisture content or less, milled to between 8 mm and 25 mm particle size, and contains less than 1% impurities. Seaweed that are shipped is typically accompanied by the required phytosanitary certificates for the export of the seaweed obtained from the Ministry of Agriculture, Water and Land Reform, a certificate of origin (from Namibia), a weight certificate, and a copy of the harvester's permit.

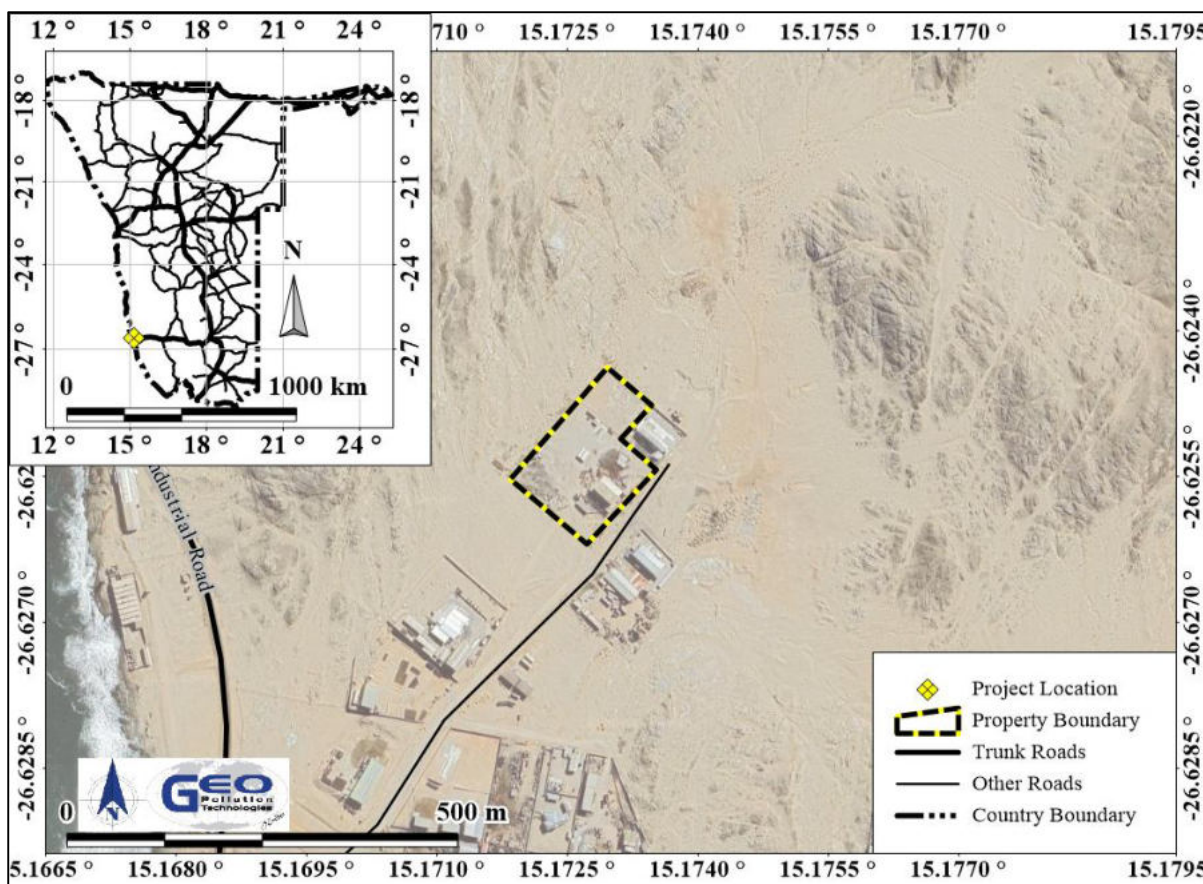


Figure 2-1 Seaweed processing plant on erf 749

3 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 3-1 to Table 3-2 govern the environmental assessment process in Namibia and/or are relevant to the project.

Table 3-1 Namibian law applicable or of specific interest

Law	Key Aspects
The Namibian Constitution	<ul style="list-style-type: none"> ◆ Promote the welfare of people ◆ Incorporates a high level of environmental protection ◆ Incorporates international agreements as part of Namibian law
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	<ul style="list-style-type: none"> ◆ Defines the environment ◆ Promote sustainable management of the environment and the use of natural resources ◆ Provide a process of assessment and control of activities with possible significant effects on the environment
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	<ul style="list-style-type: none"> ◆ Commencement of the Environmental Management Act ◆ List activities that requires an environmental clearance certificate ◆ Provide Environmental Impact Assessment Regulations.

Law	Key Aspects
Nature Conservation Ordinance	<ul style="list-style-type: none"> ◆ Sets restrictions on the right to enter game parks and nature reserves and prohibition of certain acts therein ◆ Provides for purposes for which permission to enter game parks and nature reserves may be granted
Water Resources Management Act Act No. 11 of 2013	<ul style="list-style-type: none"> ◆ Provide for management, protection, development, use and conservation of water resources ◆ Prevention of water pollution and assignment of liability
Marine Resources Act Act No. 27 of 2000	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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 MFMR in Lüderitz.
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	<ul style="list-style-type: none"> ◆ Define the powers, duties and functions of local authority councils ◆ Regulates discharges into sewers
The Namibian Ports Authority Act Act No. 2 of 1994	<ul style="list-style-type: none"> ◆ Provide for the establishment of the Namibian Ports Authority and its functions ◆ Responsible to protect the environment within its areas of jurisdiction
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	<ul style="list-style-type: none"> ◆ Provides a framework for a structured more uniform public and environmental health system, and for incidental matters ◆ Deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	<ul style="list-style-type: none"> ◆ Provides for Labour Law and the protection and safety of employees ◆ Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997)
Pollution Control and Waste Management Bill (draft document)	<ul style="list-style-type: none"> ◆ 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)	<ul style="list-style-type: none"> ◆ Amends the Prevention and Combating of Pollution of the Sea by Oil Act of 1981 to be more relevant to Namibia after independence

Table 3-2 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	<ul style="list-style-type: none"> ◆ The Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region ◆ Provides an overarching legal framework for all marine-related programmes in West, Central and Southern Africa
National Marine Pollution Contingency Plan of 2017	◆ Coordinated and integrated national system for dealing with oil spills in Namibian waters

4 THE EMP

4.1 IMPLEMENTATION OF THE EMP

The sections below outline the management of the environmental elements that may be affected by the activities associated with the various phases of the project. These phases are as follows:

- ◆ Planning Phase
- ◆ Operational Phase
- ◆ Construction Phase (maintenance and minor upgrades)
- ◆ Decommissioning Phase

The EMP is a living document that must be prepared in detail, and regularly updated, by the Proponent as the project progress and evolve. Impacts addressed and mitigation measures proposed are seen as minimum requirements which have to be elaborated on where appropriate. Delegation of mitigation measures and reporting activities should be determined by the Proponent and included in the EMP. All monitoring results must be reported on as indicated. Reporting is important for any future renewals of the ECC and must be submitted to the MEFT. Renewal of ECC will require bi-annual reports based on the monitoring prescribed in this EMP.

Various potential and definite impacts will emanate from the project. The majority of these impacts can be mitigated or prevented. The impacts as well as prevention and mitigation measures are listed below.

4.1.1 Planning

During the phases of planning for future operations and decommissioning of the project, 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 prior to and during all phases, to ensure potential impacts and risks are minimised. The following actions are recommended for the planning phase and should continue during various other phases of the project:

- ◆ Ensure that all necessary permits from the various ministries, local authorities and any other bodies that governs the project are in place and remains valid (e.g. Access Permit (Appendix B)).
- ◆ Ensure all appointed contractors and employees enter into an agreement which includes the EMP. Ensure that the contents of the EMP are understood by the contractors, sub-contractors, employees and all personnel present or who will be present on site.
- ◆ Make provisions to have a health, safety and environmental (HSE) coordinator to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site, by both the employees and contractors and their employees.
- ◆ Have the following emergency plans, equipment and personnel on site, where reasonable, to deal with all potential emergencies:
 - EMP, risk management plan, emergency response plan and HSE manuals;
 - Adequate protection and indemnity insurance cover for incidents;
 - Procedures, equipment and materials required for emergencies (e.g. firefighting, first aid, etc.).
- ◆ Establish and / or maintain a reporting system to report on aspects of operations and decommissioning as outlined in the EMP.
- ◆ Submit monitoring reports every six months to allow for ECC renewal applications when needed.
- ◆ Update the EIA and EMP if required and apply for renewal of the ECC prior to expiry.

4.1.2 Revenue Generation and Employment

An increase in semi-skilled labour will result from the seaweed collection and processing activities. Increased economic resilience will realise for employees residing in Lüderitz.

Resources are harvested locally and then exported internationally, contributing to the economy and trade balance of Namibia. Employment is sourced locally while skilled labour/contractors may be sourced from other regions.

Desired outcome: Contribution to national treasury and trade balance and provision of employment to local Namibians.

Actions

Mitigation:

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

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Bi-annual report based on employee records (include details on demographic profile parameters such as number of male vs. female, local vs. foreign, and disabled employees).

4.1.3 Skills, Technology and Development

Training is and will be provided to employees in order to perform various functions for successful implementation and execution of the project. Skills is and will be transferred to an unskilled workforce for general tasks. Development of people and technology are key to economic development.

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

Actions

Mitigation:

- ◆ If the skills exist locally, contractors must first be sourced from the town, then the region and then nationally. Deviations from this practice must be justified.
- ◆ 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.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

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

4.1.4 Demographic Profile and Community Health

The project relies on labour during the operational phase. It is not foreseen that the project will create a change in the demographic profile of the local community, as employment is sourced locally as far as possible. The community may still to some extent be exposed to factors such as communicable disease (e.g. HIV/AIDS) and alcoholism/drug abuse. This impacts on overall community health. 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.

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

Actions:

Prevention:

- ◆ Employ only local people from the area, deviations from this practice should be justified appropriately.
- ◆ Adhere to all municipal by-laws relating to environmental health, such as sanitation requirements.

Mitigation:

- ◆ Educational programmes for employees on HIV/AIDs and general upliftment of employees' social status.
- ◆ Appointment of reputable contractors.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

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

4.1.5 Traffic

Limited traffic impacts are expected. Transport requirements are largely limited to the collection of seaweed and the transport thereof to the processing facility and the nearby Port of Lüderitz.

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

Actions

Prevention:

- ◆ All drivers must be properly trained with valid driver's licences.
- ◆ Drivers may not deviate from existing routes (no off-road driving).
- ◆ Training and information sharing with drivers of vehicles to ensure vigilance at hot spots. This include the town centre, schools and areas with occasional animal crossings (e.g. brown hyena).

Mitigation:

- ◆ If any traffic impacts are expected, traffic management should be performed to prevent these.
- ◆ The placement of signs to warn and direct traffic at the processing facility, where necessary, will mitigate traffic impacts.

Responsible Body:

- ◆ Contractors
- ◆ Proponent

Data Sources and Monitoring:

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

4.1.6 Health, Safety and Security

Activities associated with the project relies on human labour and therefore exposes them to potential health and safety risks. The major risks involved with the proposed activities are physical injury such as accidental cuts, vehicle accidents, etc. Security risks are related to unauthorized entry, theft and sabotage.

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

Actions

Prevention:

- ◆ Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool.
- ◆ Comply with all health and safety standards as specified in the Labour Act and related legislation.
- ◆ Clearly label dangerous and restricted areas as well as dangerous equipment and products.
- ◆ Lock away or store all equipment and goods on site in a manner suitable to discourage criminal activities (e.g. theft).
- ◆ Provide all employees with required and adequate personal protective equipment (PPE) where required.
- ◆ Ensure that all personnel receive adequate training on the operational procedures of equipment and machinery and the handling of hazardous substances (if any).
- ◆ Train selected personnel in first aid and ensure first aid kits are available on site.
- ◆ The contact details of all emergency services must be readily available.
- ◆ Implement a maintenance register for all equipment whose malfunction can lead to injury or exposure to hazardous substances.

Mitigation:

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

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Record any incidents with the actions taken to prevent future occurrences.
- ◆ Compile a bi-annual report of all incidents reported. The report should contain dates when training was conducted and when safety equipment and structures were inspected and maintained.

4.1.7 Noise

Noise generated will be minimal and isolated to for example the seaweed milling process and vehicle noise.

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

Actions

Prevention:

- ◆ Follow the workplace noise regulations as provided in the Health and Safety Regulations of the Labour Act and/or World Health Organization (WHO) guidelines on maximum community noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment and nuisances at nearby receptors.
- ◆ All machinery must be regularly serviced to ensure minimal noise production.

Mitigation:

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

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

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

4.1.8 Waste Production

Minimal waste is expected from the project. Waste that will be generated will mainly include domestic waste, sewage, old bags, etc. Unconfined wastes / litter such as empty bags may be blown away by strong winds and end up in the surrounding environment.

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

Actions

Prevention:

- ◆ Waste reduction measures should be implemented and all waste that can be re-used / recycled must be kept separate.
- ◆ Ensure adequate waste storage facilities are available where applicable.
- ◆ Ensure waste cannot be blown away by strong wind.
- ◆ Prevent scavenging (human and non-human) at waste storage.

Mitigation:

- ◆ 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.
- ◆ Liaise with the municipality regarding waste and handling of hazardous waste (if any).

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

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

4.1.9 Terrestrial Ecosystem and Biodiversity Impact

Terrestrial impacts may occur in areas where seaweed will be collected. This can include trampling of sensitive areas or bird breeding areas and excessive collection of seaweed. Seaweed forms an important part of the beach ecology with many birds and invertebrates relying on it for foraging. Poaching or illegal collection of plant and/or animal material may occur.

Desired Outcome: To reduce disturbance and destruction of the ecological environment and to leave behind enough seaweed to sustain animals depending on it for food.

Actions.

Prevention:

- ◆ Educate all workers on the value of biodiversity and promote vigilance while collecting seaweed to avoid trampling any sensitive areas or bird nests.
- ◆ Only collect seaweed in accordance with the conditions as stipulated by the MFMR from time to time (Appendix C).

Mitigation:

- ◆ Workers to report any extraordinary ecological sightings (e.g. dead washed out fish or marine mammals, birds or other animals entangled in waste, oil covered birds, etc.) to the MEFT and/or MFMR.
- ◆ No off-road driving.
- ◆ Mitigation measures related to waste handling should limit ecosystem and biodiversity impacts.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ All monitoring information and extraordinary animal sightings to be included in a bi-annual report.

4.1.10 Cumulative Impact

Possible cumulative impacts associated with the operational phase include employment, slightly increased traffic in the area and excessive collection of seaweed by different parties.

Desired Outcome: To minimise negative and enhance positive cumulative impacts associated with the operations.

Actions

Mitigation:

- ◆ Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact.
- ◆ Reviewing biannual 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 reports provides a summary of the impacts of the operational phase and highlights cumulative impacts.

4.2 DECOMMISSIONING AND REHABILITATION

Decommissioning is limited to the possible demolition of the buildings at the processing plant in the industrial area and is not foreseen during the validity of the environmental clearance certificate. The EMP for the facility will have to be reviewed at the time of decommissioning to cater for changes made to the site and implement guidelines and mitigation measures.

5 CONCLUSION

The above EMP, if properly implemented will help to continually minimise adverse impacts on the environment. Where impacts occur, immediate action must be taken to reduce the escalation of effects associated with these impacts. To ensure the relevance of this document to the specific stage of project, it needs to be reviewed throughout all phases.

The EMP should continue to be used as an on-site reference document during all phases of the project, and auditing should take place in order to determine compliance with the EMP for the proposed site. Parties responsible for transgression of the EMP should be held responsible for any rehabilitation that may need to be undertaken.

Monitoring reports must be submitted to the MEFT every six months (bi-annually) to allow for the future renewal of the ECC.

6 REFERENCES

Faul A, Coetzer W. 2020. Proposed Seaweed Collection at Lüderitz: Environmental Assessment Scoping Report

Appendix A: Current Environmental Clearance Certificate

ECC – 001040

Serial: gPWN4g1040



**REPUBLIC OF NAMIBIA
MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM**

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

ENVIRONMENTAL CLEARANCE CERTIFICATE

ISSUED

In accordance with Section 37(2) of the Environmental
Management Act (Act No. 7 of 2007)

TO

**Benguella Wealth Farming CC
P.O. Box 1042, Lüderitz**

TO UNDERTAKE THE FOLLOWING LISTED ACTIVITY

**Development and Operations of the Proposed Seaweed Collection,
Lüderitz, //Karas Region**

Issued on the date: **2020-11-02**

Expires on this date: **2023-11-02**

(See conditions printed over leaf)



Reduce
Reuse
Recycle



This certificate is printed without erasures or alterations

ECC –

CONDITIONS OF APPROVAL

1. This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office
2. This certificate does not in any way hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from these activities. Instead, full accountability rests with the proponent and its consultants
3. This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project
4. All applicable and required permits are obtained and mitigation measures stipulated in the EMP are applied particularly with respect to management of ecological impacts
5. Strict compliance with national heritage guidelines and regulations is expected throughout the life-span of the proposed activity, therefore any new archaeological finds must be reported to the National Heritage Council for appropriate handling of such
6. A six monthly report on project progress and environmental management profile, starting from date of commencement of operations, must be submitted by the Proponent to Office of Environmental Commissioner

Appendix B: Access Permit

ABS - 007CHM1022

Not Transferable



REPUBLIC OF NAMIBIA
MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

Biological and Genetic Resources and Associated
Traditional knowledge (ABS) Office

ACCESS PERMIT

ISSUED

In accordance with Section 8(1) of the
Biological and Genetic Resources and Associated
Traditional Knowledge Act No. 2 of 2017
and Section 5, Regulation 14 of the Regulations
to the Act

BENGUELA WEALTH FARMING CC

TO

TO ACCESS THE FOLLOWING RESOURCES

ECKLONIA AND LAMINARIA PALLIDA
GEOGRAPHICAL AREA

TSAU//KHAEB NATIONAL PARK
LUDERITZ, KARAS REGION



Issued on the date: 06 MARCH 2023

Expires on this date: 07 MARCH 2024

(See conditions printed over leaf)



This Permit is printed without erasures or alterations

Appendix C: Current Seaweed Collection Conditions

Conditions for Harvesting Beach-Cast Kelp

Ministry of Fisheries and Marine Resources, Namibia

Lüderitz Marine Research Centre

Recommendations for conditions to commercially harvest beach-cast kelp along Namibian coastline:

Lüderitz peninsula

Below are the conditions regarding harvesting of beach-cast kelp on the Lüderitz peninsula. These conditions will be reviewed in 6 months' time in order to evaluate the efficiency and practicalities of each condition.

1. Use only **existing, well-established access routes** to beaches
 - a. No entry onto beaches from between hummock dunes.
 - b. Any tracks which have been created by kelp harvesting companies onto beaches need to be swept with brooms else more vehicles will start using these tracks.
2. Collect only kelp *Laminaria pallida* (split-fan kelp) and *Ecklonia maxima* (sea bamboo)
 - a. No other seaweed species to be harvested (e.g. red, brown or green algae)
3. Collect only **freshly washed-up kelp** along the lower half of each beach (and not within 5 m from the base of hummock dunes)
 - a. No harvesting of old dry kelp that accumulated naturally on the upper half of any beach.
 - b. No harvesting of kelp (fresh or old) from near the base of any hummock dunes.
4. Harvested beach-cast kelp **to be dried at companies' own facilities.**
 - a. No drying of kelp on site or in the desert (where salt leaching could damage desert vegetation).
 - b. Freshly washed-up kelp to be hauled away (entire plants or parts of it, if the entire plant is not required) and dried at each company's own facilities.
5. **No mechanical harvesting.**
 - a. All harvesting of beach-cast kelp to be done manually.
6. Harvesting to be restricted to **pre-identified sandy beaches** only (see map).
 - a. On the Lüderitz peninsula harvesting of beach cast kelp should occur only at the following sandy beaches: Grosse Bucht, Guano Bay, Dias Point, Agate Beach, Aeroplane Bay
 - b. No harvesting along any rocky shorelines or at small pocket beaches along the rocky shoreline.
7. Commercial **companies to alternate beaches** to be harvested.
 - a. The present two commercial companies (JL Marine Merchants & Benguela Wealth Farming) to alternate on weekly basis at the following areas: 1) Grosse Bucht vs 2) Guano Bay & Dias Point. No rotation required at this stage at Agate Beach & Aeroplane Bay.
 - b. Hangana Abalone (non-commercial beach-cast kelp harvesting) to liaise with the commercial companies in order to fill their daily kelp supply required for abalone feeding.
8. **Limit in number of trailer loads per day** (assume 1 tonne wet weight/trailer).
 - a. Harvest no more than 2 tonnes of wet material **per day** per company for **commercial** purposes and no more than 1 tonne of wet material per day per company for **non-commercial** purposes (i.e. for abalone feed).
 - b. Harvesting of beach-cast kelp to be done using no more than a single 4 wheel drive vehicle with one trailer with combined weight (vehicle & trailer) of no more than 3.5 tonnes (to protect beaches from being compacted by heavy vehicle traffic).
9. **Harvesting** of beach-cast kelp to occur only **between sunrise and sunset.**

10. Feedback reports & data.

- a. Feedback forms and data sheets created by MFMR scientists to be completed by each company.
- b. The Operational Procedure and Product Appraisal form to be filled in only once (with potential reviewing once a year in case procedures & products change over time).
- c. The Kelp Harvesting Log Sheet is to be completed each day.
- d. The log sheets to be submitted to the Lüderitz Marine Research Centre on a monthly basis.

11. Assisting in repair to hummock dunes.

- a. Any parts of kelp not removed (e.g. holdfasts or leaves or stipes) to be placed at the base of these hummock dunes most affected by erosion. (Sites to be restored to be determined during liaisons with MFMR scientists.). This apply to both commercial and non-commercial harvesting.

12. Notify MFMR inspectorate in Lüderitz each day prior to departing for kelp harvesting session

13. Management and control measures

- a. All conditions to commercially harvest beach-cast kelp along Lüderitz peninsula will be carried out according to the Marine Resources Act, Act 27 of 2000, as well as the general standard and regulations pertaining to the right of exploration in Namibia.
- b. The Lüderitz regional fisheries office in consultation with the Executive Director reserves the right to adjust or terminate the project at any time with due notice if it is found that its continuation has become hazardous to the ecosystem or part thereof.