ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED STOCKHOLDING FACILITY FOR COPPER CONCENTRATE AND LITHIUM PETALITE AT ERF 3757, GOBABEB STREET, WALVIS BAY

ENVIRONMENTAL SCOPING REPORT

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DOCUMENT DESCRIPTION

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EAP:	Green Gain Environmental Consultants cc J. K. Amushila
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LIST OF ACRONYMS

DEAF:	Directorate of Environmental Affairs and Forestry
EAP:	Environmental Assessment Policy
EIA:	Environmental Impact Assessments
EMA:	Environmental Management Act
EMP:	Environmental Management Plan
EMS:	Environmental Management System
HSEQ:	Health, Safety & Environment Quality System
I&APs:	Interested and Affected Parties
ISO:	International Standards Organisation
MEFT:	Ministry of Environment, Forestry and Tourism
MSDS:	Material Safety Data Sheet
PPE:	Personal Protective Equipment

EXECUTIVE SUMMARY

Beucorp Trading cc, hereinafter referred to as the "Proponent" intends to establish a stockholding facility for general goods and hazardous goods (mainly copper concentrate and lithium petalite) which are sourced from suppliers in Zambia, Botswana, Zimbabwe, and Namibia. Erf 3757 is located in the Light Industrial area of Walvis Bay Extension 1 along the Gobabeb Street. The materials are transported from their origin to the stockholding facility in Walvis Bay for temporary storage before exported to international markets through the port of Walvis Bay.

In terms of the Environmental Management Act, 07 of 2007, the construction of facilities for any process or activities which requires a license, right or other form of authorisation, and the renewal of a license, right or other form of authorisation, in terms of the Minerals (Prospecting and Mining Act), 1992. may not be carried out without an Environmental Clearance Certificate (ECC) being obtained. Green Gain Consultants cc has been appointed to carry out the required Environmental Impact Assessment (EIA) study and apply for the ECC.

Green Gain Consultants cc has been appointed to carry out the required Environmental Impact Assessment (EIA) study and apply for the ECC. The EIA is conducted to determine all environmental, safety, health and socio-economic impacts associated with the operation and decommissioning of the proposed development. Relevant environmental data has been compiled by making use of secondary data and from site visits. Potential environmental impacts and associated social impacts are identified and addressed in this report. This will enable decision makers to make an informed decision regarding the facility from an environmental perspective.

The scope of the EIA is to determine the potential environment impacts emanating from the establishment, operation, and potential decommissioning of the facility. Relevant environmental data has been compiled by making use both primary and secondary data, from site visits, relevant stakeholders and Interested and Affected Parties (I&APs) consultations and review of relevant literature and legal instruments. Potential environmental impacts and associated social impacts will be identified and addressed in this report. Also attached to this report is the Environmental management Plan (EMP) which upon approval by the authorities will be considered a legal bidding document to guide the site establishment and operation of the facility.

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

Beucorp Trading cc, hereinafter referred to as the "Proponent" intends to establish a stockholding facility for general goods and hazardous goods. The facility will consist of a bonded warehouse, stock yard, office space and truck-wash bay. The main target products are copper concentrate (general goods) and lithium petalite (hazardous goods) that is sourced from suppliers in Zambia, Botswana, Zimbabwe, and Namibia and are destined for international markets through the port of Walvis Bay.

The materials are packaged in 1MT bags and transported by trucks (either flatbed trailers or containers.) to the stockholding facility while waiting for shipment. Once the material arrives at the facility, it will be offloaded from the trucks with forklifts and stack the bags in the warehouse. If the warehouse is full, some bags will keep in the yard under black plastic sheeting.

The main objective of the EIA is to ensure adequate identification of potentially negative effects, propose mitigation measures and develop an Environmental Management Plan (EMP) for the establishment and operation of the stockholding facility.

The aims and objectives of this EIA report are to:

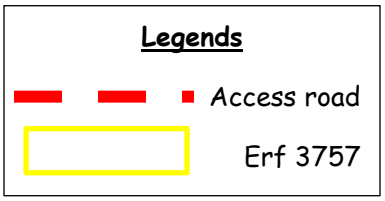
- Evaluate the suitability of the proposed development against the biophysical and socio-economic of the area.
- To investigate any environmental and socio-economic impacts associated with this project's activities.
- Provide sufficient information to determine whether the proposed operations of the facility will result in significant adverse impacts.
- Identify a range of management actions which could mitigate the potential adverse impacts to acceptable levels.
- To consult potential Interested and Affected Parties (I&APs) and relevant stakeholders and to also ensure that their needs and concerns are taken into account.
- Comply with the Environmental Management Act (No.07 of 2007); and
- Provide sufficient information to the Ministry of Environment & Tourism and the Ministry of Mines and Energy, to make an informed decision regarding the proposed facility.

2. PROJECT DESCRIPTION

2.1 Locality

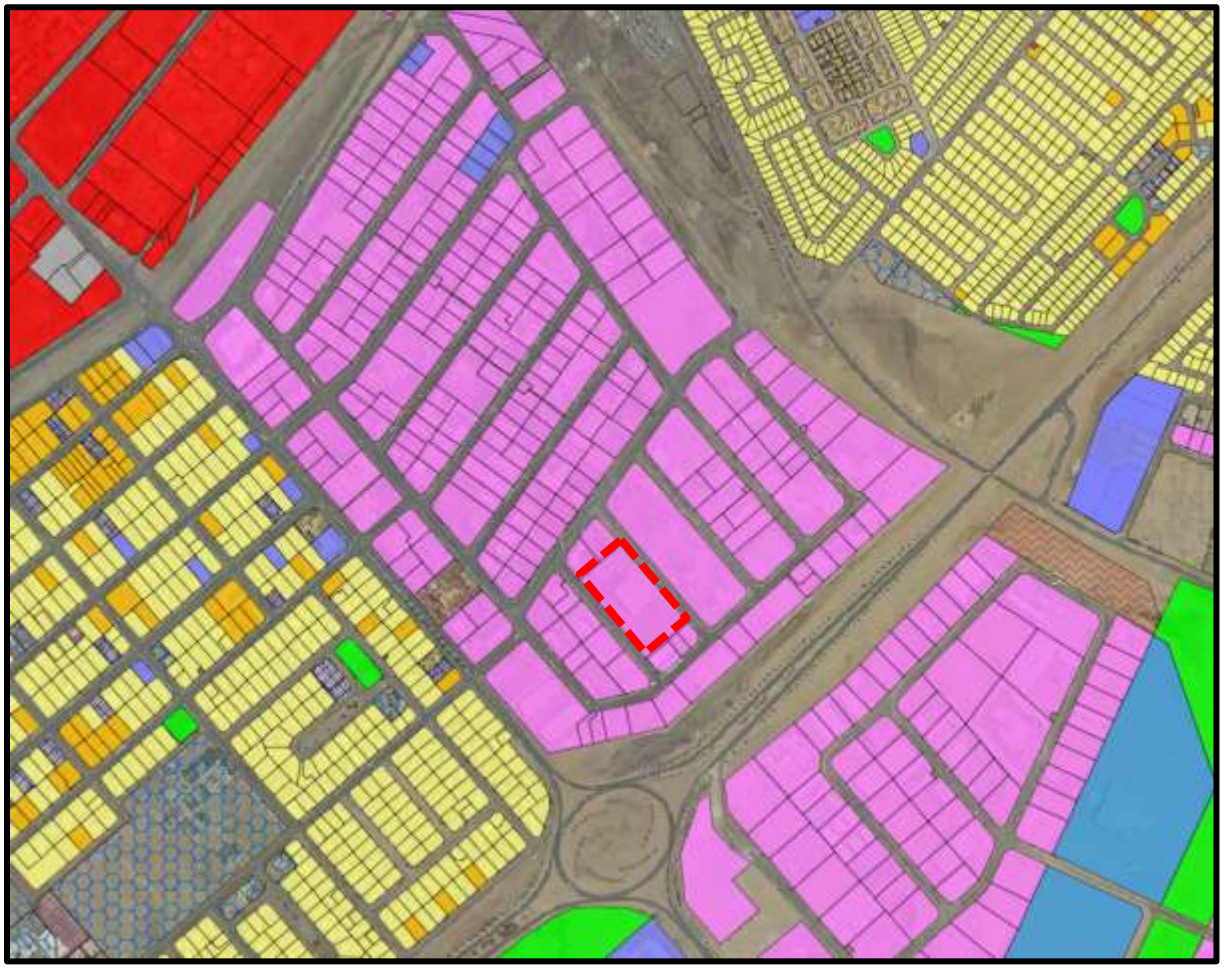
Erf 3757 is located in the Light Industrial area of Walvis Bay Extension 1 along the Gobabeb Street which is linked to the main road Hanna Mupetami connected to the Port of Walvis Bay. It is located on the following coordinates -22.9512175" S and 14.5227301" E.

Figure 1: Locality



2.2 Land use zone

The site is zoned “Light Industrial” and measures 18600m^2 in extent in terms of the Walvis Bay Town Planning Scheme No. 35.



Primary Use	Consent Use
• Building yard • Light industrial • Office premises • Service industry • Service station • Storage premises • Warehouse	• Business premises • Caretaker unit • Funeral parlor • Panel beating • Place of Amusement • Place of instruction • Restaurant • Retail, Scarp yard

Figure 2: Land use zoning map (Walvis Bay Town Planning Scheme, 2015)

2.3 Existing infrastructure

The site is fenced off with a high brick wall and has existing infrastructure such as warehouse, office complex, truck-wash bay, ablution facilities and largen open yard.

Figure 3: Site facilities

2.4 Process flow

2.4.1 Materials and sources

a). General goods (Copper concentrate)

The copper concentrate is a copper ore that has been processed into a powdered form to increase the concentration of the copper content. It is packaged in 1MT bags, similar to the ones used to transport sugar. These bags are then loaded on trucks (flatbed trailers or containers) and send from their origin to the bonded warehouse in Walvis Bay for temporary storage while waiting for shipment through the port of Walvis Bay.

Figure 4: Example of bonded warehouse

Facts about Copper concentrate

- It has the consistence of fine sand.
- It has low toxicity.
- Reactive with strong acids and alkaline substances
- Not considered a fire or explosion hazard
- Exposure to copper oxide or dust may cause irrigation.

Figure 5: Sample of Copper concentrate

b) Hazardous goods (Lithium Petalite)

Lithium Petalite ((AILi (Si2O5)2) is a lithium aluminum silicate mineral (more simply a lithium feldspar) that is commonly used in clay bodies. The Lithium petalite originates mainly from local mines in Namibia and is transported with tipper trucks. The plan is to stockpile the material in bulk (50 000MT to 55 000MT) on the large open peace at Erf 3575 before shipment. The material will be stored for approximately 3 months at a time to get enough material to fill a bulk vessel that will export it to China.

Figure 6: Lithium petalite in Namibia

Facts about Lithium petalite

- Hazardous product
- produce a variety of cardiovascular effects in man and experimental animals.
- Adequate care is needed when handling lithium
- Not combustible

2.4.2 Transportation and handling procedures

The intended product handling procedures will follow a schematic flow as depicted in the diagram (1-5) and summarized below.

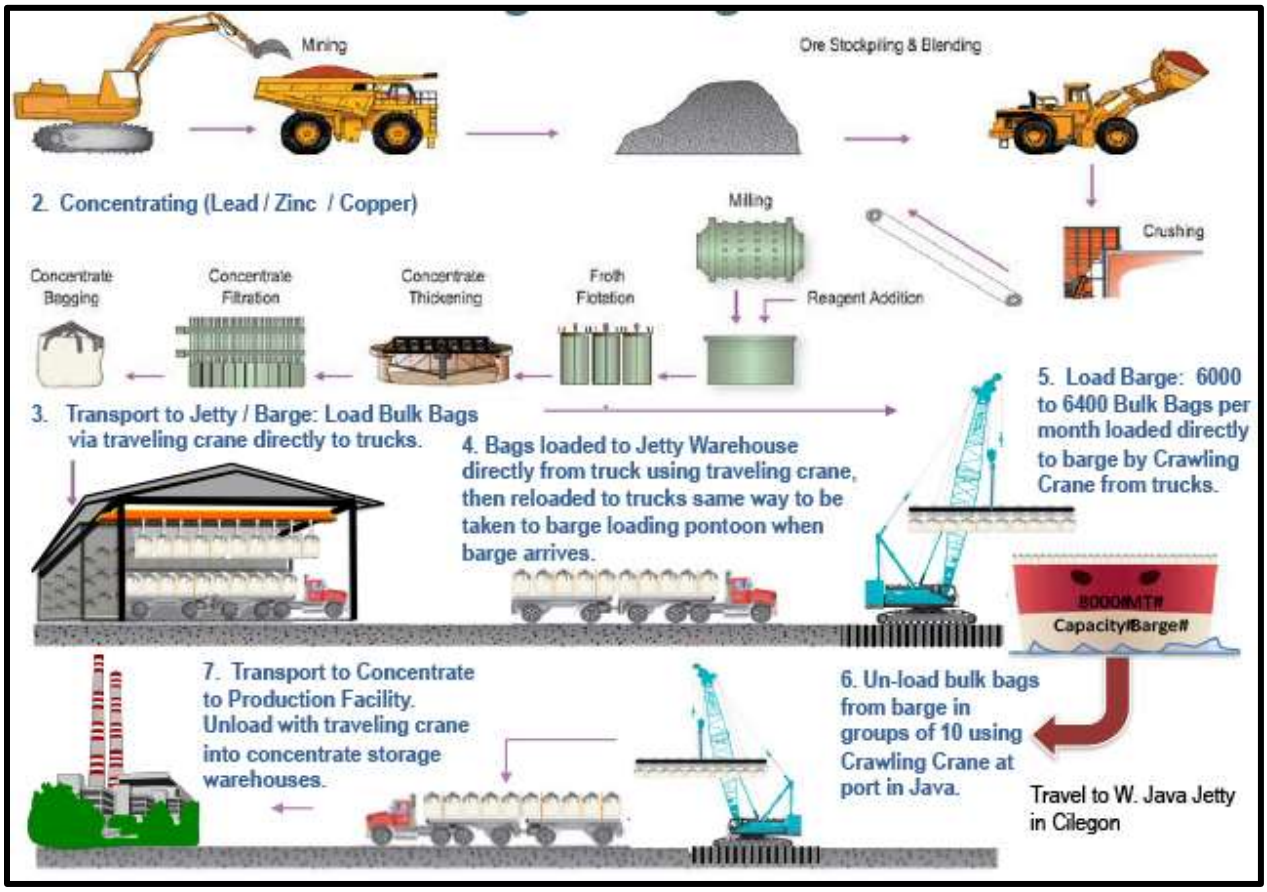


Figure 7: Typical material flow

Copper concentrate: Once the material arrives at the warehouse, it will be offloaded from the trucks with forklifts and stack in the warehouse. If the warehouse is full, some bags will be stored in the yard under black plastic sheeting. When the boat arrives in the harbor and the container stack is open, the containers will be booked out from the harbor to the warehouse. When the containers arrive at the warehouse, arrangement will be made with the customs officials to seal the containers before they are taken back to the harbor for shipment to the respective buyer.

Lithium petalite: The material will be transported from the source to the warehouse with tipper trucks. Ones arrives at the warehouse it will be offloaded by means of a combination of earth moving equipment and conveyer belts and stored in a heap withing the yard. When the bulk vessel has arrived at the port, the material will be again loaded into tipper trucks with the earthmoving equipment and transported to the port for loading in the vessel.

2.4.3 Plant and Equipment

To ensure smooth operations of the stockholding facility, the stockholding facility will be equipped with the following plant and equipment.

A. Trucks (tipper)
B. Forklift
C. Trucks (flatbed)
D. Tail-Bucket-Loader (TLB)

Figure 8: Example of Plant and Equipment to be used.

2.4.4 Waste management

The operation of the stockholding facility will result in a generation of general waste (i.e., office waste, general liter) and hazardous waste from spills and contaminated or rejected products. All waste to be generated on the premises will be transported to the Walvis Bay landfill site in the appropriate manner. The proponent will be liable to pay disposal fees at the landfill site.

Figure 9: Walvis Bay landfill site sign

2.5 Quality assurance

In order to ensure quality service and prevent occupation health safety risks during the transportation, handling, sorting, storage of the products and operation of the facility, the following measures will be ensured.

- Products will be sourced from reliable buyers/suppliers with pre-contracts.
- Quality of products will be confirmed prior to delivery to Walvis Bay
- All drivers and handling team will receive training on handling of different types of products to prevent injuries and exposure.
- Employees will be provided with appropriate Personal Protective Equipment (PPE)
- Products will be transported in designated vehicles.
- Products waste bags will be sealed, and open trucks will be covered with tarpaulin.
- All delivery trucks will be labelled accordingly.
- Waste generated onsite will be kept for a short period and in the appropriate waste collection bins.
- General waste will be kept separate from hazardous waste.
- Pre-arrangement will be done with the Municipal Landfill officials for disposal well advance.
- Emergency procedure will be prepared to deal with all possible emergencies onsite i.e. injuries, material spills, accidents, fire, etc. (see EMP)

2.6 Need and Desirability of the project.

The “need” and “desirability” ’for the proposed project are based on the following aspects.

a). The “Need”

There has been a recent increase in mining activities both locally and in the neighboring countries. Most of the mining products produced in the SADC region, especially from the landlocked countries like Zambia, Zimbabwe is being exported through the port of Walvis Bay. As such, these resulted in backlog on the availability of temporary storage and handling facilities in Walvis Bay. This can be evidently confirmed by a number of delivery trucks with loads that are usually parked in the streets and open spaces around the Walvis Bay town thereby creating traffic hazards in the town.

b). The “Desirability”

- The proposed development is consistent with the land use zoning of the site “Light Industrial” as per the Walvis Bay Town Planning Scheme
- The intended activities are compatible with the surrounding land uses; hence the approval of this application would not compromise the integrity of the Draft Integrated Urban Spatial Development Framework of 2014.
- The proposed development is desirable given the fact that basic municipal services such as electricity supply, water, a sewer system, and a road network are already in existence.
- The proposed development site is located a few distance from the main Port, thus reducing distance to travel from the storage to the shipment.
- The proposed development site is large enough for the envisaged activities (truck parking, warehousing, storage yard, office)

3. DESCRIPTION OF THE RECEIVING ENVIRONMENT

3.1 Socio-economic settings of Walvis Bay

a). Demography

At local level Walvis Bay has an urban population size of 62,096 (Namibia Statistics Agency, 2014) although the current estimate is around 90,000 to 100,000. Walvis Bay is the principal port of Namibia and is an import/export facility for processed fish, mining products and beef. The area is linked to Namibia's air, rail and road network, making its port well situated to service Zambia, Zimbabwe, Botswana, Southern Angola and South Africa.

Figure 10: Overview of Walvis Bay

b). Economic situation

The economic activities of Walvis Bay rest on four pillars, namely fishing, tourism, manufacturing, and the harbour. For the purpose of this report, only the fishing industry will be discussed, since the proposed activities under investigation take place in the marine environment some distance from Walvis Bay.

c). Land uses

Land utilisation and planning in Walvis Bay are guided by the Integrated Urban Spatial Development Framework (2014). Of particular interest to this EIA study is the land allocated to industrial activities. In terms of the Walvis Bay Town Planning Scheme No. 35, the industrial land uses in Walvis Bay are divided into parts namely, Light industrial and Heavy industrial as listed here below.

Zone	Map reference	Purposes for which the land maybe used and building maybe erected and used	Purposes for which the land maybe used and building maybe erected and used with Consent of Council
Light Industrial		. Light Industry . Service Industry . Service Station . Warehouse . Storage Premises . Building Yard . Office Premises	. Panel Beating . Scrap Yard . Business Premises . Retail . Caretaker Unit . Place of Instruction . Place of Amusement . Funeral Parlour . Restaurant
Industrial		. Industrial Building . Panel Beating . Scrap Yard . Light Industry . Service Industry . Service Station . Warehouse . Storage Premises . Building Yard	. Noxious Industry . Office Premises . Truck Port . Business Premises . Retail . Caretaker Unit . Place of Instruction . Place of Amusement

The proposed development site is located in the heavy industrial area. The primary use includes industrial building, panel beating, scrap yard, light industrial, service station, warehouse, storage premises and building yard. The proposed activities (waste oil handling and storage) are comparable to the service station listed under primary use, hence the is no need for Consent of Council in terms of the Town Planning Scheme.

3.2 Biophysical settings

According to Mendelsohn, et al., (2002), the climate of the Erongo Region and Walvis Bay in particular can be described as semi-arid. Annual temperatures range between less than 16-20 °C with the maximum temperatures ranging between less than 20- 28 °C and the minimum temperatures between 8-12 °C. The coastal belt temperatures are usually above 10 °C due to the coastal winds.

Rainfall is recorded to fall mostly in the summer months of January, February and March with the average annual rainfall recorded to be between 100 mm to 150 mm for the subject area (Mendelsohn, et al., 2002).

The geology underlying the Namib Desert consists of a Precambrian basement with granite, gneiss and shale. The oldest Tertiary rocks are part of the Tsondab-Sandstone-Formation, which underlies most of the central Namib south of the Kuiseb. North of the Kuiseb a flat gravel plain on a crystalline basement is found. The underlying rocks consist of calcareous and gypsum metamorphic bedrock or granite.

In the Erongo Region the land rises steadily from sea level to about 1000 meters across the breadth of the Namib. Namibia's highest mountain, Brandberg (2,579 m), lies in the far northern part of the Erongo Region. The Namib plain is incised by a few main ephemeral rivers that run seawards from wetter parts of their catchments further inland. The four main rivers in the Erongo Region include the Swakop, Omaruru, Kuiseb and Ugab rivers (Geological Survey of Namibia, 2012).

3.3 Waste disposal facility

According to the Walvis Bay Municipality, 2018, the Walvis Bay landfill site or Walvis Bay Solid Waste Disposal Facility (WBSWDF) consists of three main components as follows.

- Entrance and access control
- General Waste Landfill Component
- Hazardous Waste Disposal Component

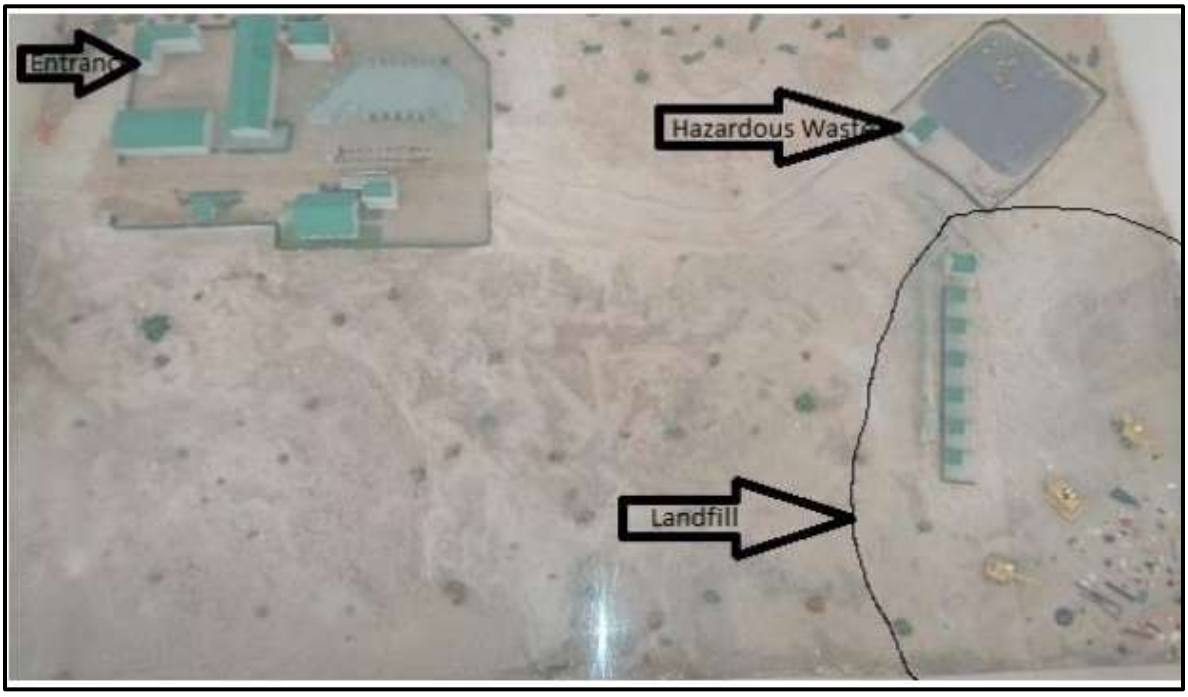


Figure 11 Walvis landfill site (Walvis Bay Municipality)

a). Entrance and access control

The Walvis Bay landfill site is one of the user-friendly facilities across the country fitted with access control building, a weigh bridge, graded access road, public disposal unit. Access of vehicles and people is ensured at the entrance to allow for the directing of vehicles to the appropriate disposal units. A concrete stairway is erected to the gate house to enable the gate guard to inspect the loads inside certain vehicles if deemed necessary.

Waste transported in small vehicles such as sedans, Light Delivery Vehicles (LDVs) and trailers (1 tonne or 5 m^3 maximum) can be dropped of at the public disposal unit located few distance from the entrance. The public disposal unit is open at all times (including public holidays) to facilitate disposals of smaller waste quantities and thus minimizing the illegal dumping of waste elsewhere in the town.

- **b). General Waste Landfill Component**

This Landfill Component is a standard facility and classified as a G:M:B General Waste Site in terms of the 2nd Edition of the South African Minimum Requirements for the Handling and Disposal of Hazardous Waste. The general waste disposal component has the following facilities

- The dune landfill cells.
- An ablution block.
- A site operator storage and network building, and work area;
- Six recycling stalls, each with a small lean-to and a fenced in area, and
- Fencing against windblown litter.

c). Hazardous waste disposal

Hazardous Waste cell is designed almost along the line of a mono-disposal and based on the 2nd Edition of the South African Minimum Requirements for the Handling and Disposal of Hazardous Waste and is classified as a H:H Hazardous Waste site. Based on current year-to-date quantities of the hazardous waste stream the hazardous waste unit still has sufficient capacity of operations.

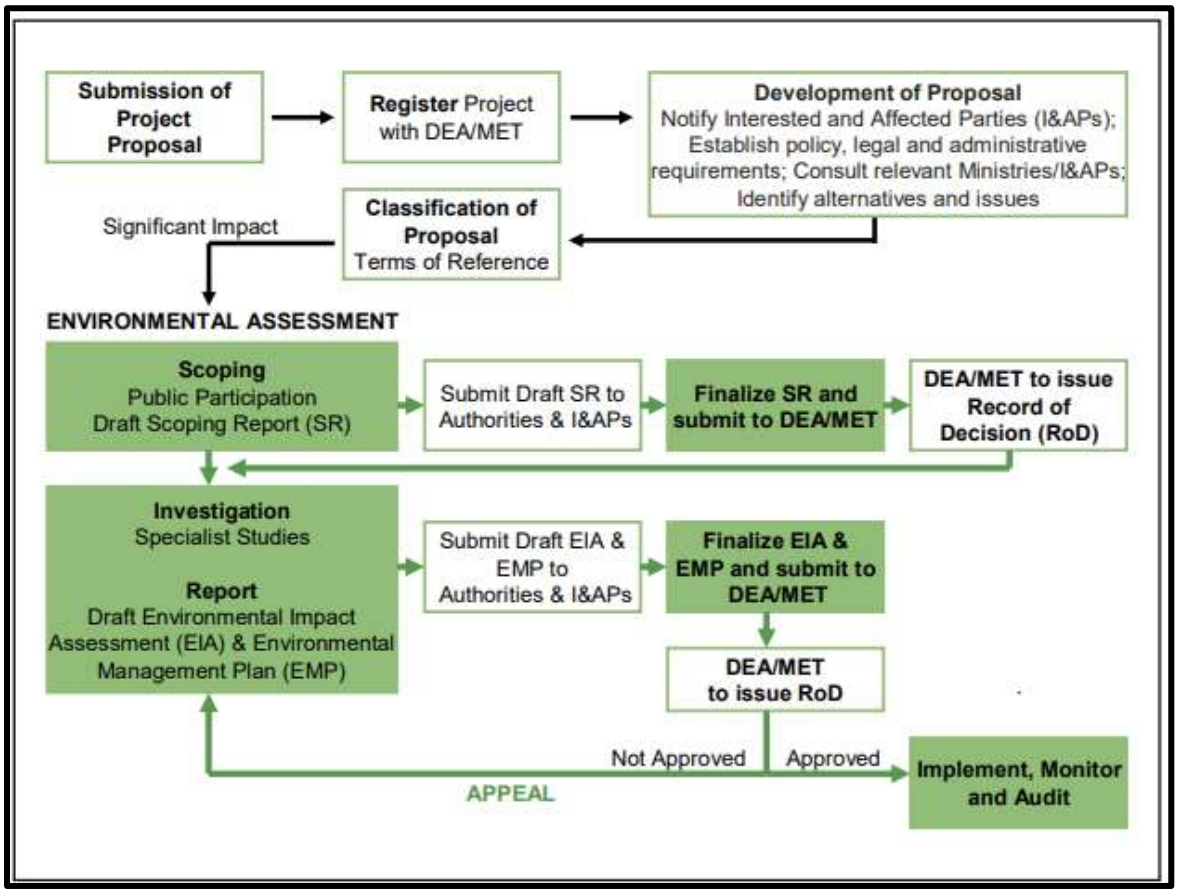
The hazardous waste unit is located on clean dune sand with a depth of approximately 10 m to the northeast of the General Landfill Component. The entire component is secured by means of a 1.8 m high precast concrete wall with lockable vehicle access gates at the entrance and comprises of a lined hazardous waste cell, a lined leachate pond and a hazardous waste reception building where the waste can be temporarily stored whilst being prepared for disposal in the cell. The evaporation/monitoring pond is adjacent to the hazardous waste storage cell and the hazardous waste reception/storage building. No ablution facilities are provided, but a safety shower and hand washbasin are provided inside the reception building.

The single pond Hazardous waste cell comprises of a lined bunded area of 3 800 m² with an average initial depth of 2 m. The liner system extends up the sides of the bund walls and is anchored in a trench on top of the walls. The base of the cell is sloped from the middle outwards leachate collecting drainage at the foot of the cell bunds. The geonet drainage layer between the primary and secondary lines represents a leakage detection system should the primary liner fail in any way.

Operating hours for the hazardous waste unit is from 07:00 to 18:00 Mondays to Fridays and as mutually agreed upon between the waste generator and the Hazardous Waste Inspector and displayed on the information notice board at the Administration Building. After hours activities at the facility are limited to preparations of the site and maintenance to equipment. Access to this entire component is only allowed to the Hazardous Waste Inspector after hours.

4. APPROACH AND METHODOLOGY

The environmental impact assessment study was conducted in line with Namibia's Environmental Management Act of 2007 and its Regulations (GN No. 30 February 2012).



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

- Baseline information about the site and its surroundings was obtained from existing secondary information as well as from site visits.
- Legal and policy review.
- Gleaning over existing information pertaining to similar developments and issues; and
- As part of the scoping process to determine potential environmental impacts, Interested and Affected Parties (I&APs) are usually consulted concerning their views, comments and opinions and these are included in this report.

5. PUBLIC PARTICIPATION PROCESS

Consultation with the public forms an integral component of an environmental assessment investigation and enables Interested and Affected Parties (I&APs) to comment on the potential environmental impacts associated with the proposed development and to identify additional issues which they feel should be addressed. The identified I&APs includes adjacent property owners, local authority officials, local businesses, and the residents. Refer to Appendix C for proof of the public participation processes and registered I&APs.

5.1 Public notifications

The scoping and EIA process of the project was advertised in two separate local newspapers; Namib Times and Confidante for 13 and 20 January 2023. Public notices were also displayed at the Municipality offices and at the development site. Public advertisements provided brief information about the proposed project and the EIA process, as well as an invitation for registration and also an invitation to the public meeting.

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED STOCKHOLDING OF GENERAL GOODS AND HAZARDOUS SUBSTANCES AT ERF 3757, GOBABEB STREET, WALVIS BAY.

Notice is hereby given to all Interested and Affected Parties (I&APs) that an application for an Environmental Clearance Certificate will be submitted to the Environmental Commissioner in terms of the Environmental Management Act (Act No.07 of 2007) and the EIA Regulations (GN No. 30 of 6 February 2012) for the following proposed activities:

Project: Proposed stockholding of general goods and hazardous substances
Project Location: Erf 3757, Gobabeb Street, Walvis Bay
Proponent: BEUCORP TRADING CC
EAP: Green Gain Environmental Consultants cc
Project Description: The proponent intends to operate a facility for stockholding of general goods i.e., Copper concentrate ($CuFeS_2$) and hazardous substances i.e., Petalite lithium ($AlLi(Si_2O_5)_2$) at Erf 3757, located in the light industrial area of Walvis Bay. In terms of the Environmental Management Act 07 of 2007 the intended activities cannot be conducted without an ECC.

I&APs are hereby invited to register, request for Background Information Document (BID) and send their comments to eia@greengain.com.na on or before the **27 January 2023**.

The need for a public meeting will be determined after the consultation and will be communicated to all registered I&APs.

Green Gain Consultants

more Information contact: +264811422927
email: info@greengain.com.na
website: www.greengain.com.na

5.2 Background Information Document (BID)

The background information document was compiled in English and distributed to all registered I&APs and stakeholders. The BID provided a brief introduction of the proposed project, the assessment process, and the public consultation process to be followed.

5.3 Consultation meeting

The proponent had a meeting with the concerned local authority (Municipality of Walvis Bay). Since the development site is located within the industrial area where similar activities are taking place, a business Fitness Certificate was issued (Appendix B) and was given provisional approval provided an Environmental Clearance Certificate (ECC) is obtained. The need to have a public meeting was not established due to limited and positive comments received.

6. ANALYSIS OF PROJECTALTERNATIVES

The EIA Regulations stipulates that the Scoping process should investigate alternative development options to any proposed development. Alternatives to the project, including the no action alternative will be presented in this section, as well as the historical use of the overall area in which the project site is located. These alternatives will be discussed from environmental and socio-economic perspectives.

6.1 No Action

The No Action Alternative in respect to the proposed project implies that the status quo is maintained. In this case, there is no reason or whatsoever to consider this option given the need for such a project in the town. This option will involve several losses both to the project proponent, the community at large and the Municipality as the property will remain under-utilized or neglected. The No project option is the not a preferred from the socio-economic and partly environmental perspective since if the project is not done.

6.2 Alternative site

This option entails relocating the proposed project to a different site. This means that the proponent has to look for the land if relocation is proposed. Looking for the land to accommodate the scale and size of the project and completing official transaction/lease agreements on it may take a long period. It's also worth noting that the proponent has already reached lease agreement with the property owner. The project design and planning before the stage of implementation would call for cost; already incurred in the proposed development i.e. whatever has been done and paid to date would be counted as a loss to the proponent.

Also considering the fact that the proposed activities "waste management" are similar in nature to the primary land use activities "Scrap yard" on Industrial zone, listed under the Town Planning Scheme No. 35, there is no need for an alternative site. The site extent is big enough for the envisaged activities. Thus, no alternative site is required.

7. LEGAL FRAMEWORK

This section provides a review of applicable and relevant Namibian legislation, policies and guidelines regarding the environment which was considered while conducting the EIA for the proposed project.

7.1 Applicable legislations

Table 1: Applicable legislations

LEGISLATION	PROVISION	PROJECT IMPLICATION
Constitution of the Republic of Namibia (1990)	Articles 91 (c) commands the state to actively promote and sustain the environmental welfare of the nation by formulating and institutionalizing policies to accomplish the sustainable objectives which include: • Guarding against overutilization of biological natural resources, • Limiting over-exploitation of non-renewable resources, • Ensuring ecosystem functionality, • Protecting Namibia's sense of place and character. • Maintain biological diversity. • Pursuing sustainable natural resource use. Article 95(i) recites: "The State shall actively promote… maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future". Furthermore, Artic 95 (i) ensures that workers are paid a living wage adequate for the maintenance of a decent standard of living and the enjoyment of social and cultural opportunities.	Through implementation of the environment management plan, the proponent shall be advocating for sound environmental management as set out in the Constitution.
Environmental Management Act No. 07 of 2007 and its Regulations (2012)	The purpose of this Act is to promote the sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting	An Environmental Impact Assessment is compulsory for listed activities. "The manufacturing, storage, handling or processing of a

	the environment; to provide for a process of assessment and control of projects which may have significant effects on the environment; and to provide for incidental matters. The Act gives legislative effect to the Environmental Impact Assessment Policy. Moreover, the act also provides procedure for adequate public participation during the environmental assessment process for the interested and affected parties to voice and register their opinions and concern about the proposed project.	hazardous substance defined in the Hazardous Substances Ordinance, 1974." "The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location." "Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin."
Water Act 54 of 1956	The Water Resources Management Act 11 of 2013 is presently without regulations; therefore, the Water Act No 54 of 1956 is still in force: • Prohibits the pollution of water and implements the principle that a person disposing of effluent or waste has a duly of care to prevent pollution (S3 (k)). • Provides for control and protection of groundwater (S66 (1), (d (ii)). Liability of clean-up costs after closure/abandonment of an activity (S3 (l)).	The protection of ground and surface water resources should be a priority. The main threats will most likely be concrete and hydrocarbon spills during construction and hydrocarbon spills during operation and maintenance. The wastewater from the site should be channeled into the municipal sewage system. No discharge of wastewater into the open environment.

	Furthermore, the Act provides provision for the control, conservation and use of water for domestic, agricultural, urban and industrial purposes. In addition, the Act clearly gives provision that pertain with license or permit that required abstracting and using water as well as for discharge of effluent.	
Pollution Control and Waste Management Bill	This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. This Bill will license discharge into watercourses and emissions into the air.	All activities shall be conducted within the framework of this Bill
Stockholm Convention on Persistent Organic Pollutants	The convention was adopted in 2001 and entered into force on May 17, 2004. It emphasizes the restriction and elimination of persistent organic pollutants especially the disposal of industrial and medical chemicals. It also provides information for future establishments to re-use, reduce and recycle waste with environmentally friendly technologies e.g., autoclaving. The chemicals targeted by the Stockholm Convention are listed in the annexes A-C of the convention text.	
Atomic Energy and Radiation Protection Act, 5 of 2005.	To provide for adequate protection of the environment and of people in current and future generations against the harmful effects of radiation by controlling and regulating the production, processing, handling, use, holding, storage, transport and disposal of radiation sources and radioactive materials, and controlling and regulating prescribed non-ionising radiation sources; to establish an Atomic Energy Board and to provide for its composition and functions; to establish a National Radiation Protection Authority; to amend the Hazardous Substances Ordinance,	License is required for the disposal of the radiation source or nuclear material Amended under hazardous substances ordinance Radioactive waste is presently transported across the borders as there is no disposal facility in Namibia.

	1974 (Ordinance No. 14 of 1974); and to provide for related matters. Of relevance is the Radiation Protection and Waste Disposal Regulations	
Basel and Rotterdam Convention, Framework Convention on Climate Change	Agreed to ensure environmentally sound management of hazardous waste and other wastes through the reduction of their movements, to reduce their impacts on human health and the environment. The Basel Convention makes specific reference to control of special waste: sharps, pathological infectious waste, hazardous chemical waste, and pharmaceutical waste and includes the following waste categories: • Clinical wastes from hospitals, health centres, and clinics. • Wastes from the production and preparation of pharmaceutical products. • Pharmaceutical waste. • Waste from the production, formulation, and use of biocides and Phyto-pharmaceuticals. Namibia has accepted the principle that the only legitimate transboundary shipments of hazardous waste are exported, where the country lacks the facilities or expertise to dispose of the waste categories. This applies to the transportation of radioactive waste from Namibia to South Africa. Because suitable facilities are not available in Namibia, provided that the radioactive waste is labelled, temporarily stored, and transported according to the United Nations recommended standards.	
Petroleum Products and Energy Act No. 13 of 1990 and its Regulations	Under this Act “petroleum product” is defined as any petroleum fuel and any lubricant, whether used or unused, and includes any other substance which may be used for a purpose for which	

	petroleum fuel or any lubricant may be used; The Act aims to: provide measures for the saving of petroleum products and an economy in the cost of the distribution thereof, and for the maintenance of a price therefor; for control of the furnishing of certain information regarding petroleum products; and for the rendering of services of a particular kind, or services of a particular standard, in connection with motor vehicles; for the establishment of the National Energy Fund and for the utilization thereof; for the establishment of the National Energy Council and the functions thereof; for the imposition of levies on fuel; and to provide for matters incidental thereto.	
Hazardous Substances Ordinance (No. 14 of 1974)	To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the division of such substances into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances; and to provide for matters connected therewith. 3. (1) The Minister may, subject to the provisions of subsections (2) and (3), by notice in the Gazette, declare any substance or mixture of substances which, in the course of customary or reasonable handling or use, including ingestion, might, by reason of its toxic, corrosive, irritant, strongly sensitizing or	

	flammable nature or because it generates pressure through decomposition, heat or other means, cause injury, ill-health or death to human beings, to be a Group I or a Group II hazardous substance In some countries, oil or mixtures that would qualify as hazardous waste are products that are off specification typically contain arsenic (5 ppm), cadmium (2 ppm), chromium (10 ppm) and lead (100 ppm), as well as have a minimum flash point of 100 degrees F and total halogens of more than 4,000 ppm.	
Soil Conservation Act 76 of 1969	Prevention and combating of soil erosion, conservation, improvement and manner of use of soil and vegetation, and protection of water sources.	Removal of vegetation cover is to be avoided and minimized at all costs.
National Heritage Act 27 of 2004	The Act provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.	Any material of cultural, heritage or archaeological importance shall be reported in accordance with this Act
Labour Act (No 11 of 2007)	135 (f): "the steps to be taken by the owners of premises used or intended for use as factories or places where machinery is used, or by occupiers of such premises or by users of machinery in connection with the structure of such buildings of otherwise in order to prevent or extinguish fires, and to ensure the safety in the event of fire, of persons in such building;" (Ministry of Labour and Employment Creation)	Contractors, Sub-contractor shall be guided by this Act when recruiting or handling employment related issues
	Noise Control Regulations It is essential to ensure that before any development project is approved and undertaken, an assessment or evaluation of expected noise level is done.	Noise generation should be minimized to the satisfactory of neighboring residents

Urban and Regional Planning Act No. 5 of 2018	The Act and Regulations combine the Townships Board and Namibia Planning Advisory Board (NAMPAB) into one to be known as the Urban and Regional Planning Board and delegate the decisions on town planning applications to Local Authorities. However, an LA can only make decisions after the MURD has declared a Local Authority as an Authorised Planning Authority (APA).	A Consent Letter from the Municipality will be obtained
Public and Environmental Health, 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.	The Proponent and all its employees should ensure compliance with the provisions of these legal instruments.
Atmospheric Pollution Prevention Ordinance No. 11 of 1976	Governs the control of noxious or offensive gases. Prohibits scheduled process without a registration certificate in a controlled area. Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.	According to the Ordinance, the Local Authority shall control and prevent atmospheric air pollution or emission of noxious or offensive gases by smoke.
South African National Standards (SANS)	The Petroleum Products and Energy Act prescribes SANS standards for the construction, operations and decommissioning of petroleum facilities. **SANS 10089-3:2010** is specifically aimed at storage and distribution of petroleum products at fuel retail facilities and related structures. Provide requirements for spill control Infrastructure amongst other specifications.	The Proponent should adhere to the SANS throughout the phases of the retail fuel facility.

Walvis Bay Town Planning Scheme No.35	Identifies different land use categories, zoning, uses, and consent use.	The proposed activities are to take place at an Erf zoned Industrial which is similar with the primary use of the land.
Integrated Environmental Policy of Walvis Bay (Agenda 21 Project)	Indicates the directions that the Municipality of Walvis Bay will move towards in the forthcoming years to fulfil its responsibilities to manage the environment of Walvis Bay together with the town's residents and institutions. Strong focus on conservation and protection of environment.	The proposed activities will assist in effective waste management in line with waste management hierarchy (Recycling).

8. ASSESSMENT OF IPOTENTIAL IMPACTS

8.1 Risk Assessment and Rating

The scoping process has identified potential project impacts during its planning and operation phase and examined each of these issues. In assessing the impact of the proposed development, four rating scales were considered. Each issue identified was evaluated in terms of the most important parameter applicable to environmental management. These include the ***extent, intensity, probability and significance*** of the possible impact on the environment. The rating scales used are as follows:

Table 2: Significance rating

CRITERIA	DESRCIPTION			
EXTENT	**National (4)** The whole country	**Regional (3)** Erongo region and neighbouring regions	**Local (2)** Within a radius of 2 km of the proposed site	**Site (1)** Within the proposed site
DURATION	**Permanent (4)** Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	**Long-term (3)** The impact will continue/last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter.	**Medium-term (2)** The impact will last for the period of the construction phase, where after it will be entirely negated	**Short-term (1)** The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
INTENSITY	**Very High (4)** Natural, cultural and social functions and processes are altered to extent that they permanently cease	**High (3)** Natural, cultural and social functions and processes are altered to extent that they temporarily cease	**Moderate (2)** Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	**Low (1)** Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
PROBABILITY	**Definite (4)** Impact will certainly occur	**Highly Probable (3)** Most likely that the impact will occur	**Possible (2)** The impact may occur	**Improbable (1)** Likelihood of the impact materialising is very low
SIGNIFICANCE	Is determined through a synthesis of impact characteristics. Significance is also an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.			

Table 3: Risk Assessment

Low impact	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
Medium impact	Mitigation is possible with additional design and construction inputs.
High impact	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very high impact	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a "very high impact" is likely to be a fatal flaw.
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse
It is important to note that the status of an impact is assigned based on the status quo – i.e. should the project not proceed. Therefore not all negative impacts are equally significant.	

8.2 Potential impacts during Operation Phase

ASPECT	POTENTIAL IMPACTS	SIGNIFICANCE RATING (BEFORE MITIGATION)				SIGNIFICANCE (WITH MEASURES)	MEASURES
		Extent	Duration	Intensity	Probability		
1. BIOPHYSICAL	**Soil contamination** -Soil contamination may result from leaks from vehicles and machineries. -Soil contamination may also be caused by substance spills.	1	1	2	1	5	✓ The surface area should be covered with impervious materials (paving and mats). ✓ Contaminate soil should be removed and disposed of at Walvis Bay landfill site as hazardous waste. ✓ Drivers should be trained on how to handle accidents and spills. ✓ Waste oil and other petroleum products should be transported and stored in approved containers.
	Air pollution resulting -Dust generated during offloading and loading may cause air pollution. -Contaminated dust may also escape from open trucks transporting products	1	1	2	1	5	✓ The handling area should be sprinkling with water to reduce dust. ✓ If possible, products should be offloaded and loaded in an enclosed area (warehouse). ✓ All vehicle transporting products should be covered with tarpaulin. ✓ Delivery trucks should be serviced regularly

	-Fumes from vehicles and machineries may also cause air pollution.						and kept in good condition.
	Waste generation The operation of the facility will generate different types of waste. This includes general waste i.e., office waste as well as hazardous waste from product spills (lithium), contaminate soil etc.	2	1	1	1	5	✓ General household waste should be disposed of in the municipal refuse bins for disposal. ✓ All empty disinfectants containers should be sent to the local recycling companies or properly cleaned before re-use. ✓ Hazardous waste such as used oil, paints, unused chemicals, etc., should be collected separately and sent to the Walvis Bay landfill site.
2. SOCIO-ECONOMIC	**Traffic impacts** Disturbances from traffic movement.	1	1	1	1	4	✓ The impact is expected to be minimal given the limited number of vehicles to operate onsite. ✓ The site is located within a busy heavy industrial area, hence the proposed activities is similar to the surrounding activities.
	Generation of noise and vibration	1	1	1	1	4	✓ The impact is expected to be minimal given the

							scale (small) of the project.
	Occupational health, and Safety. -Direct handling of hazardous products can result in various types of infectious and chronic diseases. These include skin or blood, eye and respiratory and intestinal infections as well as cancer resulting from exposure to dust or hazardous compounds. -Injuries can occur due to incorrect lifting of heavy equipment and materials, falling from heights, -Close contacts may also occur through moving parts of machines, vehicles, and exposure to hot temperatures. The risk of exposure can be aggravated by factors such as lack of awareness, lack of protection, etc.	1	2	1	1	5	✓ Employees will be trained on the nature of their work and on how to handle dangerous goods. ✓ Employees will be equipped with appropriate Personal Protective Equipment (PPE). ✓ The health and safety standards specified in the Health and Safety Regulations of the National Labour Act 11 of 1992 should be complied with. ✓ Employees should undergo health check-ups regularly (twice a year).
	Visual impacts	1	1	1	1	4	✓ Contain dust generation. ✓ Keep the area clean and tidy.

8.3 Decommissioning and Rehabilitation

Decommissioning is not foreseen during the validity of the environmental clearance certificate. In this case decommissioning will entail the complete removal of all infrastructure, expect buildings and supporting facilities i.e., toilets. In case the proposed project stalled, and proponent decide to decommission several measures should be implemented.

- All equipment and fixtures should be dismantled and removed from the site.
- Contaminated items should be disposed as hazardous waste and not general recyclables.
- Waste should be collected and disposed of accordingly.
- Any pollution present on the site must be remediated.
- Contaminated sand/soil should be collected and disposed of as hazardous waste.
- No vehicles or machinery or equipment to be abandoned onsite.

The impacts associated with this phase include noise and waste production as structures are dismantled. Noise must be kept within safety standards and waste should be contained and disposed of at an appropriately classified and approved waste facility and not dumped in the surrounding areas.

9. CONCLUSION AND RECOMMEDATIONS

9.1 Conclusion

The objective of the Scoping study was to define the range of the impacts associated with the proposed activities and the scope assessment needed. It is believed that this objective has been achieved and adequately documented in the Scoping Report. All possible environment aspects have been assessed and necessary control measures have been formulated to meet statutory requirements, thus implementing this project will have little appreciable negative impacts.

The following conclusions have bearings.

- The proposed activities are permissible at the proposed site in terms of the Walvis Bay Town Planning Scheme.
- The proposed development site is of the required standard and is sufficient for the proposed activities
- The proposed activities (stockholding facility) is compatible with the surrounding activities
- The identified negative impacts can be mitigated by implementing the proposed mitigation measures as outlined in this Scoping report and in the EMP.
- There were no objections received with regards to the proposed activities

9.2 EAP Recommendations

a) To proponent

It is recommended that the proponent.

- Develop a Safety, Health, and Environment Policy for the operation of the
- Provide trainings to all employees and contractor on the content of the EMP.
- Apply all mitigations measures to mitigate identified negative impacts as outlined in the EMP.
- Appoint an Environmental Control Officer or EAP to conduct monitoring and prepare quarterly reports and submit to MEFT.
- Ensure that all legal requirements (permits, certificate etc.) are up to date.

b) To the Environmental Commissioner

a) Consider the findings and recommendations of this scoping process with mitigation measures.
b) Attach any conditions to the Record of Decision when deemed necessary.

c) Subsequently, consider issuing an Environmental Clearance Certificate to authorize the; **Operation of the stockholding facility for general goods (copper concentrate) and hazardous goods (lithium) at Erf 3757, Gobabeb Street, Walvis Bay.**

10. REFERENCES

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11. APPENDICES

Appendix A: Proof of Consultation

Appendix B: Municipal Fitness Certificate

Appendix C: EMP