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PROJECT STATUS

Title	Updated Environmental Management Plan for the renewal of the Environmental Clearance Certificate for the operation of solar salt works on 10 mining claims 68129 - 68138 at Cape Cross, Erongo Region, Namibia.		
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LEGAL NOTICE

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ABBREVIATIONS

AIDS	Acquired Immuno-Deficiency Syndrome
DR	Developer's Representative
EA	Environmental Assessment
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
GG	Government Gazette
GIS	Geographic Information System
GN	Government Notice
GPS	Global Positioning System
HIV	Human Immuno-deficiency Virus
I&APs	Interested and Affected Parties
MEFT:DEA	Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs
MHSS	Ministry of Health and Social Services
NHCN	National Heritage Council of Namibia
Reg.	Regulation
S	Section
TB	Tuberculosis

1 INTRODUCTION

Skeleton Coast Sea Salt (Pty) LTD a 100% Namibian owned company managed to acquire 10 claims sized about 140 ha each in Cape Cross, Hentiesbay, Namibia to extract Rock salt, coarse salt and produce fine/table salt and other different grades of salt to put at use. The primary objective is to meet and satisfy the salt demand by initiating and developing our salt production. The salt mining claims are already obtained albeit the Environmental Clearance Certificate (ECC) renewal that has to be completed, it is objected to launch and start the operation within a short period from now varying on the availability of resources and funds.

The demand for industrial salts is driven by the growth of its application areas. Chemical processing is the major application of industrial salts, as it uses and the increasing demand for these chemicals is expected to drive the consumption of industrial salts. The salt market is global in scope and many countries import and export various grades of salt for specific applications. There are market leaders in terms of production and export and within these countries there are multi-national corporations participating in production and trade and there are also countries that have no salt production/industry at all. Strategic alliances on how to compete and acquire the international market share are in consideration and ready to be implemented upon commencement.

In Africa specifically the market is at a level that has not attracted significant competition historically. However, as private sector evolves and enterprises emerge with production requirements similar to USA, Europe and Asia there will be demand for specific grades of salt. It will fall to the salt industry in Africa to respond to this demand or yield this volume to imports. Skeleton Coast Sea Salt Pty Ltd is one of the mining that are set for resilience on such economic threats. It is set to represent its value and satisfy the market with specific grades of salt such as rock salt, coarse salt and table salt. Namibia already serves as a prominent salt exporter to South Africa, and slightly to the rest of the world with an economic growth of +4.12 In 2020 which implies that the initiation of our operation will be vital and add more economic value to those numbers.

The proponent, Skeleton Coast Sea Salt (Pty) Ltd intends to continue with the operation of solar salt works on 10 mining claims 68129 - 68138 at Cape Cross, Erongo Region, Namibia in an environmentally sustainable manner on the mining claims covering a total area of approximately 140 hectares and therefore the Environmental Clearance Certificate (ECC) needs to be renewed to continue undertaking this listed activity in a sustainable manner.

Skeleton Coast Sea Salt (Pty) Ltd, hereafter referred to as the proponent is of the intention to undertake the following activities:

- **Environmental Assessment for the renewal of the Environmental Clearance Certificate for the operation of solar salt works on 10 mining claims 68129 - 68138 at Cape Cross, Erongo Region, Namibia.**

The activities that will occur within the mining claim areas include the production, harvesting, processing and transporting of salt and accessory works. Healthy Earth Environmental Consultants CC (HEEC) has been appointed to compile this updated Environmental Management Plan (EMP) as part of the ECC renewal process conducted for the proposed developments.

Regulation 8 of the Environmental Management Act's (EMA) (7 of 2007) Environmental Impact Assessment Regulations (2012) requires that an updated EMP should be included within an ECC renewal application.

An updated EMP is one of the most important outputs of the EA process as it synthesises all of the proposed mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. This updated EMP details the mitigation and monitoring actions to be implemented during the following phases of these developments:

- Planning and Design – the period, prior to construction, during which preliminary legislative and administrative arrangements, necessary for the preparation of the salt works, are made and engineering designs are carried out. The preparation of construction tender documents forms part of this phase;
- Construction – the period during which the proponent, having dealt with the necessary legislative and administrative arrangements, appoints a contractor for the development of services infrastructure and construction of the salt works to service the development as well as any other construction process(s) within the development areas;
- Operation and Maintenance – the period during which the services infrastructure will be fully functional and maintained.

Preliminary engineering designs have been carried out for the development of the associated services infrastructure (roads, potable water, storm water, sewerage and electrical reticulations) and will be connected to the existing infrastructure on the mining company that is operating adjacent to the Skeleton Coast Sea Salt (Pty) Ltd claim sites, 68129-68138 at Cape Cross.

The decommissioning of these developments is not envisaged; however in the event that this should be considered some recommendations have been outlined in **Table 3-5**.

1.1 NEED AND DESIRABILITY

Salt mining for various uses is one of the activities that directly contribute to Namibia's foreign exchange as most of the salt mined in Namibia and specifically at this operation is exported to international markets. This sector also contributes job creation although on a small scale. Salt that is mined in Namibia comes from the concentration of saline sea water and allow the water to evaporate. The sea water is a resource that cannot be depleted through salt mining. Therefore this activity can be undertaken sustainably for many years without causing harm to the marine environment.

1.2 PROJECT LOCATION

The Cape Cross salt pan is located along the coastal line, about 50km from Henties Bay within the Dorob National Park in Erongo Region. The proponent intends to continue undertaking salt work activities on the 10 mining claims; 68129 – 68138, situated at Cape Cross, Erongo Region, Namibia (GPS Coordinates: -21.778056 lat, 13.986389 long) as shown in **Figure 1 & 2** for the locality of the mining claims for the industrial minerals (salt).

Figure 1: Locality map of the 10 mining claims; 68129 – 68138, situated at Cape Cross, Erongo Region, Namibia (HEEC, 2022).

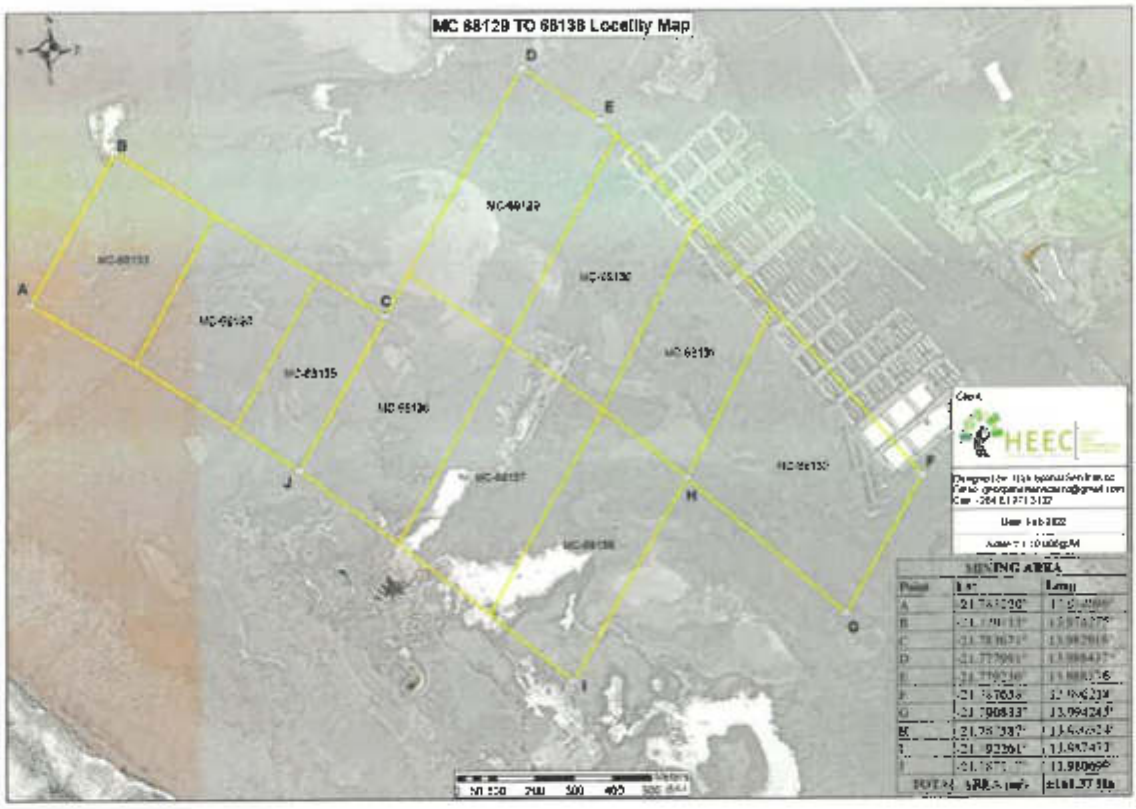

Figure 2: Location of the 10 mining claims; 68129 – 68138, situated at Cape Cross, Erongo Region, Namibia (HEEC, 2022).

Figure 3: Solar Salt works project site, situated at Cape Cross, Erongo Region, Namibia (HEEC, 2022).

2 ROLES AND RESPONSIBILITIES

The proponent (the Developer) is ultimately responsible for the implementation of the EMP, from the planning and design phase to the decommissioning phase (if these developments are in future decommissioned) of these developments. The proponent will delegate this responsibility as the project progresses through its life cycle. The delegated responsibility for the effective implementation of this EMP will rest on the following key individuals:

- Developer's Representative;
- Environmental Control Officer; and
- Contractor (Construction and Operations and Maintenance).

2.1 DEVELOPER'S REPRESENTATIVE

The Developer should assign the responsibility of managing all aspects of these developments for all development phases (including all contracts for work outsourced) to a designated member of staff, referred to in this EMP as the Developer's Representative (DR). The Developer may decide to assign this role to one person for the full duration of these developments, or may assign a different DR to each of the development phases – i.e. one for the planning and design phase, one for the construction phase and one for the operation and maintenance phase. The DR's responsibilities are as follows:

Table 2-1 Responsibilities of DR

Responsibility	Project Phase
Making sure that the necessary approvals and permissions laid out in **Table 3-1** are obtained /adhered to.	Throughout the lifecycle of these developments
Making sure that the relevant provisions detailed in **Table 3-2** are addressed during planning and design phase.	Planning and design phase
Suspending/evicting individuals and/or equipment not complying with the EMP	• Construction • Operation and maintenance
Issuing fines for contravening EMP provisions	• Construction • Operation and maintenance

2.2 ENVIRONMENTAL CONTROL OFFICER

The DR should assign the responsibility of overseeing the implementation of the whole EMP on the ground during the construction and operation and maintenance phases to a designated member of staff, referred to in this EMP as the Environmental Control Officer (ECO). The DR/Developer may decide to assign this role to one person for both phases, or may assign a different ECO for each phase. The ECO will have the following responsibilities during the construction and operation and maintenance phases of these developments:

- Management and facilitation of communication between the Developer, DR, the contractors, and Interested and Affected Parties (I&APs) with regard to this EMP;
- Conducting site inspections (recommended minimum frequency is monthly) of all construction and/or infrastructure maintenance areas with respect to the implementation of this EMP (monitor and audit the implementation of the EMP);
- Assisting the Contractor in finding solutions with respect to matters pertaining to the implementation of this EMP;
- Advising the DR on the removal of person(s) and/or equipment not complying with the provisions of this EMP;
- Making recommendations to the DR with respect to the issuing of fines for contraventions of the EMP; and
- Undertaking an annual review of the EMP and recommending additions and/or changes to this document.

2.3 CONTRACTOR

Contractors appointed by the Developer are automatically responsible for implementing all provisions contained within the relevant chapters of this EMP. Contractors will be responsible for the implementation of this EMP applicable to any work outsourced to subcontractors. **Table 3-3** applies to contractors appointed during the construction phase and **Table 3-4** to those appointed during the operation and maintenance phase. In order to ensure effective environmental management the aforementioned chapters should be included in the applicable contracts for outsourced construction, operation and maintenance work.

The tables in the following chapter (**Chapter 3**) detail the management measures associated with the roles and responsibilities that have been laid out in this chapter.

2.4 Covid19 INFECTION PREVENTION AND CONTROL MEASURES

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus i.e. severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air, and quickly fall on floors or surfaces. You can be infected by breathing in the virus if you are within close proximity of someone who has COVID-19, or by touching a contaminated surface and then your eyes, nose or mouth.

Employers must implement a code of practice to manage and prevent the spread of COVID-19. This is to ensure that construction & salt works employees returning to work and any other persons at the solar salt work site, are protected from transmission of the coronavirus at the workplace, whilst providing guidance to all stakeholders regarding their roles and responsibilities in the management of the virus. The regulations require property developers to supply protective equipment, screen all people entering the solar salt works site, provide standby quarantine facilities before transferring infected persons to the state quarantine centres, identify those with pre-existing conditions and carry out routine disinfection.

They also have to keep individual construction & solar salt works employees between one and two metres apart. Failure to enforce the rules would constitute a violation of the nationwide Covid19 regulations as stipulated by the Head of State and the relevant arms of government to curb the spread of the corona virus.

After arrival of employees at the solar salt works site, employers should comply with the following:

- Infection prevention and control measures should be applied to all modes of transport for employees, screening areas and active work areas.

2.4.1 Education of workers should be given on:

Maintaining physical distancing. Ensure employees and staff keep a distance of at least 1-2 m when in contact with other people; where this is not possible, issue appropriate facemasks, as per the Guidance on PPE for COVID-19.

- Regular washing of hands with soap.
- Regular sanitising of hands with alcohol-based hand rub (ABHR) or other appropriate sanitisers.
- Avoid touching your face areas (mouth, eyes and nose).
- Avoid physical hand contact such as handshakes.
- Avoid using other people's personal belongings such as stationery, cell phones and sharing food etc.

- When coughing or sneezing do not use your hands, rather use a tissue/toilet paper or the inside of your elbow.
- Use disposable tissues rather than a handkerchief; immediately dispose of these tissues in a closed bin and wash or sanitise your hands thereafter.
- Avoid big crowds and travelling.
- Avoid touching objects before sanitising, like steering wheels on machinery, toilet seats, tables and chairs.
- Coach and teach family members.
- Wearing and handling of appropriate PPE.

a) Posters on Infection Prevention to be visible at designated areas of the solar salt works site (See **Figure 3** for a typical Covid19 information poster).

Figure 4: Typical COVID-19 information poster to be placed at designated areas at the solar salt work site.

b) Sanitisers (as per World Health Organisation guidelines) should be made available at the entrance and exit points of all screening facilities, security entrances and all entrances and exits at the common areas at the solar salt works camp, and at the starting points and end points of all places where close contact among workers is likely to occur, including in accommodation places.

c) Sanitisers (as per World Health Organisation guidelines) should be available in each consultation room and testing areas at the screening centre, and sanitisation should take place before and after every consultation.

d) PPE is required for all staff, and PPE management programmes should be in place to ensure that PPE is worn correctly (including fit testing), replaced as necessary, stored correctly and disposed of safely.

e) Employees not able to socially distance by 1 m should be provided with PPE as per the Guidance on PPE for COVID-19.

f) Re-enforce compliance with the taking of chronic medication.

2.5 Screening and testing at the designated areas

Employers should comply with the following:

a) Where there is company accommodation, initial pre-screening should be done at the residences, before getting to the work site. This is to isolate and quarantine any possible cases and suspects.

b) At work, pre-screening of workers should be done before entering the facility (at the gate) either by nursing or security staff as per agreed-on protocol. This should include a temperature check.

c) Employees with elevated temperatures should be referred directly to the isolation area for assessment by a Registered Nurse.

d) Employees who do not have elevated temperatures should be referred to the site office for COVID-19 Risk Assessment and to complete a return to work medical (**Appendix C**).

2.6 Continuous Measures

Employers should comply with the following:

a) Training of staff and employees.

b) Continually re-enforcing of universal hygiene precautions.

c) Enforce physical distancing in the workplace.

d) Continue use of facemasks.

e) Promotion of good hygiene practices.

The employer should allocate an appropriate person to monitor and document compliance with this EMP specifically for ensuring adherence to the Covid19 regulations as continually prescribed as the disease is monitored and as per WHO guidelines.

3 MANAGEMENT ACTIONS

The aim of the management actions in this chapter of the EMP is to avoid potential impacts where possible. Where impacts cannot be avoided, measures are provided to reduce the significance of these impacts.

The following tables provide the management actions recommended to manage the potential impacts rated in the scoping-level EA conducted for these developments. These management actions have been organised temporally according to project phase:

- Applicable legislation (**Table 3-1**);

- Planning and design phase management actions (**Table 3-2**);
- Construction phase management actions (**Table 3-3**);
- Operation and maintenance phase management actions (**Table 3-4**); and
- Decommissioning phase management actions (**Table 3-5**).

The proponent should assess these commitments in detail and should acknowledge their commitment to the specific management actions detailed in the tables below.

3.1 ASSUMPTIONS AND LIMITATIONS

This EMP has been updated with the acknowledgment of the following assumptions and limitations:

- This EMP has been updated based on the scoping-level Environmental Assessment (EA) conducted for the construction & operation of the solar salt works at Cape Cross as outlined in the initial Environmental Scoping Report. HEEC will not be held responsible for the potential consequences that may result from any alterations to the above mentioned layout.
- It is assumed that construction & salt works labourers will be sourced mostly from the Henties Bay constituency area and that migrant labourers (if applicable) will be housed accommodation facilities to be established near the solar salt works site.
- Preliminary engineering designs have been carried out for the development of the associated services infrastructure (roads, potable water, storm water, sewerage and electrical reticulations) and will be connected to the existing infrastructure on the mining company that is operating adjacent to the Skeleton Coast Sea Salt (Pty) Ltd claim sites, 68129-68138 at Cape Cross.

Although this operation is located in the Dorob National Park it does not affect the appeal of the park to tourists as the ponds are barely visible from the road that is used by tourists. Access to the solar salt works site is also strictly controlled and no unauthorized entry is allowed. Therefore very few people have seen the operation in its entirety.

No impact with a "High" rating was identified during this study. Most of the impacts identified for this project were rated "medium" to "low" before mitigation. The effect of these impacts on the environment can be reduced to low and insignificant level through the implementation of the mitigation measures proposed for each impact.

It can thus be concluded that this project does not cause any significant impacts. Most of the potential impacts identified for this project are generic concerns associated with the operation of a salt mining operation like this one which can be satisfactorily mitigated through the full implementation of this updated Environmental Management Plan (EMP).

3.2 APPLICABLE LEGISLATION

Legal provisions that have relevance to various aspects of these developments are listed in **Table 3-1:**

Legal provisions relevant to the proposed development below. The legal instrument, applicable corresponding provisions and project relevance details are provided.

Table 3-1: Legal provisions relevant to the proposed development

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
The Constitution of the Republic of Namibia as Amended	Article 91 (c) provides for duty to guard against "the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia." Article 95(l) deals with the "maintenance of ecosystems, essential ecological processes and biological diversity" and sustainable use of the country's natural resources.	Sustainable development should be at the forefront of this development. The project site lies within the extensive Dorob National Park (almost 58,000 km^2 in size; literally "dry land"). The Park was gazetted under the above Nature Conservation Ordinance in 2010. Within the Park, Cape Cross Seal Reserve lies to the west and south-west of the development site. The 60 km^2 reserve was established in 1968 to protect the largest breeding colony of Cape fur seals in the world (www.meft.gov.na). Adjacent to the Cape Cross Seal Reserve on its north-eastern side, Cape Cross Lagoon was registered as a Private Nature Reserve in order to restrict access to the public who might disturb birds on the artificial guano platforms (Simmons et al. 1998).
Environmental Management Act No. 7 of 2007 (EMA)	Section 2 outlines the objective of the Act and the means to achieve that. Section 3 details the principle of Environmental Management	The development should be informed by the EMA.
EIA Regulations GN 28, 29, and 30 of EMA (2012)	GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.	**Activity 3.1 (Mining and Quarrying Activities)** The construction of facilities for any process or activities which requires a licence, right or other form of authorisation, and the renewal of a licence, right or other form of authorisation,

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
		in terms of the Minerals (Prospecting and Mining Act), 1992. **Activity 3.2 (Mining and Quarrying Activities)** Other forms of mining or extraction of any natural resources whether regulated by law or not. **Activity 3.3 (Mining and Quarrying Activities)** Resource extraction, manipulation, conservation and related activities.
Convention on Biological Diversity (1992)	Article 1 lists the conservation of biological diversity amongst the objectives of the convention.	The project should consider the impact it will have on the biodiversity of the area.
Draft Procedures and Guidelines for conducting EIAs and compiling EMPs (2008)	Part 1, Stage 8 of the guidelines states that if a proposal is likely to affect people, certain guidelines should be considered by the proponent in the scoping process.	The EA process should incorporate the aspects outlined in the guidelines.
Namibia Vision 2030	Vision 2030 states that the solitude, silence and natural beauty that many areas in Namibia provide are becoming sought after commodities and must be regarded as valuable natural assets.	Care should be taken that the development does not lead to the degradation of the natural beauty of the area.
Water Act No. 54 of 1956	Section 23(1) deals with the prohibition of pollution of underground and surface water bodies.	The pollution of water resources should be avoided during construction and operation of the development.
The Ministry of Environment, Forestry and Tourism (MEFT) Policy on HIV & AIDS	MEFT has recently developed a policy on HIV and AIDS. In addition it has also initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.	The proponent and its contractor have to adhere to the guidelines provided to manage the aspects of HIV/AIDS. Experience with construction projects has shown that a significant risk is created when construction workers interact with local communities.
Local Authorities Act No. 23 of 1992	The Local Authorities Act prescribes the manner in which a town or municipality should be managed by the Town or Municipal Council.	The development has to comply with provisions of the Local Authorities Act

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Labour Act no 11 of 2007	• Chapter 2 details the fundamental rights and protections. • Chapter 3 deals with the basic conditions of employment.	Given the employment opportunities presented by the development, compliance with the labour law is essential.
National Heritage Act No. 27 of 2004	The Act is aimed at protecting, conserving and registering places and objects of heritage significance.	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council of Namibia (NHCN) and require a permit from the NHCN before they may be relocated
Roads Ordinance 17 of 1972	• Section 3.1 deals with width of proclaimed roads and road reserve boundaries • Section 27.1 is concerned with the control of traffic on urban trunk and main roads • Section 36.1 regulates rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads • Section 37.1 deals with infringements and obstructions on and interference with proclaimed roads.	Adhere to all applicable provisions of the Roads Ordinance.
Public and Environmental Health Act of 2015	This Act (GG 5740) provides a framework for a structured uniform public and environmental health system in Namibia. It covers notification, prevention and control of diseases and sexually-transmitted infections; maternal, ante-natal and neo-natal care; water and food supplies; infant nutrition; waste management; health nuisances; public and environmental health	Contractors and users of the proposed development are to comply with these legal requirements.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	planning and reporting. It repeals the Public Health Act 36 of 1919 (SA GG 979).	
Nature Conservation Ordinance no 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants have to be managed within the legal confines.
Water Quality Guidelines for Drinking Water and Waste Water Treatment	Details specific quantities in terms of water quality determinants, which waste water should be treated to before being discharged into the environment (see Appendix B).	These guidelines are to be applied when dealing with water and waste treatment
Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990))	The Act makes provision for impact assessment for new proposed fuel facilities and petroleum products known to have detrimental effects on the environment.	The proposed project involves the use and management of fuel facilities and petroleum products.
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. The Bill will repeal the Atmospheric Pollution Prevention Ordinance (11 of 1976) (below) when it comes into force.	The proposed development would not entail the discharge to air and or water, but might result in the generation of noise and dust during the construction phase. The potential risk of hazardous substance leakages does occur and should be mange accordingly.
Atmospheric Pollution Prevention Ordinance (Act No.11 of 1976)	This Ordinance serves to control air pollution from point sources, but it does not consider ambient air quality. Any person carrying out a 'scheduled process' which are processes resulting in noxious or offensive gases typically pertaining to point source emissions have to obtain a registration certificate from the Department of Health.	Although we do not anticipate the development to generate noxious or offensive gasses, the proponent will ensure that a registration certificate (air pollution permit) is obtained, if required. As duty of care, the proponent should implement the necessary mitigation measures set out in in order to limit emissions to air in the form of dust during construction and operation. Emissions could occur during the event of a fire or explosion and then risk mitigation and

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
		management measures should be in place.

3.3 PLANNING AND DESIGN PHASE

The DR should ensure that the management actions detailed below should be adhered to during the period before the construction of the solar salt works infrastructure starts.

Table 3-2: Planning and design management actions

Aspect	Management Actions
Existing Service Infrastructure	• While it will be incumbent on the new owners to apply for municipal services it is advised that the proponent engages the services of an engineering professional to design and construct the service connections to the development as far as water, sewer, electricity and roads are concerned. • It is recommended that alternative and renewable source of energy be explored and introduced into the proposed development to reduce dependency on the grid. • Solar geysers and panels should be considered to provide for general lighting and heating of water and buildings. • Water saving mechanisms should be considered for incorporation within the developments in order to further reduce water demands. • Re-use of treated waste water should be considered wherever possible to reduce the consumption of potable water.
Roads	• Make ample provision in road design for pedestrian walkways and speed bumps at crossing and busy nodes • Ensure that road junctions have good sightlines. • Implement traffic control measures where necessary.
Wastewater	The Developer should appoint a professional engineer to design the required aspects for the wastewater. These designs should consider as a minimum the following: • Avoid pollution of the underground and surface water sources.
Borrow pits	Building sand should be sourced from a borrow pit with a valid ECC.

3.4 Environmental awareness

3.4.1 Solar salt works Job Site Guidelines- Covid19 Regulations

For construction activities at the solar salt works development site at Cape Cross, please follow all MHSS guidelines to limit the spread of COVID-19 including:

- If you feel sick, stay home. Do not go to work.
- Wear a face mask at all times while in the workplace.
- Maintain at least 2 metres of social distancing as work duties permit.
- Practice good hygiene. Wash your hands and avoid touching your face.
- Clean and disinfect all shared areas and equipment routinely.

Figure 5: Solar salt works site regulations to stop the spread of Covid19.

3.5 CONSTRUCTION PHASE

The management actions listed in **Table 3-3** applies during the construction phase. This table may be used as a guide when developing EMPs for other construction activities within these solar salt works areas. It is important to note that water for the intended solar salt work activities and human consumption will be sourced from the nearby desalination plant to feed the activities at the mining claims. Electricity on the site is not connected to the national grid via the regional distributor Regional Electricity Distributor (ErongoRED) as yet and diesel & solar power are used on site and sewage is removed from the site mobile toilets by means of sewer removal vehicle at regular intervals for disposal at the Henties Bay sewerage ponds. Access to the mining claim sites will be obtained using the C34 road off the main B2 road from Windhoek to Swakopmund and then driving about 50 km from Henties Bay within the Dorob National Park to the site using the existing internal access roads.

Table 3-3: Construction phase management actions

Environmental Feature	Impact	Management Actions
EMP training	Lack of EMP awareness and the implications thereof	All construction workers are to undergo EMP training that should include as a minimum the following: • Explanation of the importance of complying with the EMP. • Discussion of the potential environmental impacts of construction activities. • Employees' roles and responsibilities, including emergency preparedness. • Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities.
Conservation of vegetation	Loss of biodiversity	• The clearing of an area of around 140 ha to make way for the salt pans has resulted in the loss of some indigenous vegetation although only a few plants can be found in this area. Plants found here provide an important habitat for an array of desert organisms such as lizards and other reptiles. Although this impact cannot be mitigated as the clearing of vegetation has been done already when the operation was initiated, the management of this operation can indirect contribute by planting trees somewhere else to replace what has been lost. • The layout and development design should incorporate existing trees[1]. • The Contractor should compile a Tree Management Plan which should include the following as a minimum:

[1] a "tree" is defined as an indigenous woody perennial plant with a trunk diameter ≥150 mm

Environmental Feature	Impact	Management Actions
		○ Trees if not already accounted for in an existing Geographic Information System (GIS), should be surveyed, co-ordinates/location incorporated into the Contractor's GIS, marked with paint (or other means so as to be readily visible) and protected; ○ Trees, which are impossible to conserve, need to be identified and their location recorded on a map; ○ The Contractor should apply to the local authority for a permit to remove these trees. ○ Special protection should be accorded the protected tree species, which are to be found within the development area. ○ A list should be compiled of all trees to be removed detailing the erf on which they are located, the species as well as which trees will be planted to replace these. The nursery where these trees will be sourced from should also be included; ○ Each tree that is removed needs to be replaced with an indigenous tree species after construction of the salt works infrastructure; ○ Some of these trees can be obtained at the nearest forestry office or at a commercial nursery. Plant indigenous plants at the site or any other place such as a school in Henties Bay. This will be the company's contribution to environmental sustainability and indirectly replace the plants that has been lost as a result of the salt pans. • Only a limited width +/- 5 m on the side of roads may be partially cleared of vegetation. • Workers are prohibited from collecting wood or other plant products on or near work sites. • No alien species may be planted on or near work areas.
Lay-down areas and materials camp	Loss of biodiversity	• The creation of ponds with high levels of salt can cause harm to wildlife such as birds, jackals and hyenas which are frequently seen roaming in the area. Consumption of salty water can result in toxicosis and death within the bird population. Big animals found in the area such as hyenas and jackals can also be tempted to drink the concentrated salty water found in the pans. This can potentially cause salt toxicity including dehydration, confusion and weakness, among other symptoms.

Environmental Feature	Impact	Management Actions
		• Use tailings to build embankments around the salt pans to minimize access by wild animals (this will not be effective for birds). Suitable locations for the contractors lay-down areas and materials camp should be identified with the assistance of the DR and the following should be considered in selecting these sites: • The areas designated for the services infrastructure should be used as far possible. • Second option should be degraded land. • Avoid sensitive areas (e.g. rivers/drainage lines).
Hazardous waste	Contamination of surface and groundwater sources.	• All heavy construction vehicles and equipment on site should be provided with a drip tray. • All heavy construction vehicles should be maintained regularly to prevent oil leakages. • Maintenance and washing of construction vehicles should take place only at a designated workshop area. • Spilled cement and/or concrete (wet or dry) should be treated as hazardous waste and disposed of by the end of each day in the appropriate hazardous waste containers. • All hazardous substances (e.g. fuel etc.) or chemicals should be stored in a specific location on an impermeable surface that is bunded - with a volume of 120 % of the largest single storage container or 25 % of the total storage containers, whichever is greater.

Water, Sewage and grey water	Contamination of surface and groundwater sources and water wasting	• Sewage should not be discharged directly onto open soil.
		• All sewage must be removed regularly and disposed of at a recognised (municipal) sewage treatment facility.
		• The wash water (grey water) collected from the cleaning of equipment on-site should not be left standing for long periods of time as this promotes parasite and bacterial proliferation. Grey water should be recycled:
		  ○ Used for dust suppression;
		  ○ Used to water a vegetable garden, or to support a small nursery;
		  ○ Used (reused) to clean equipment.
		• Grey water that is not recycled should be removed along with sewage on a regular basis.

Environmental Feature	Impact	Management Actions
		• It is recommended that construction takes place outside of the rainy season in order to limit flooding on site and surface and ground water pollution. • No dumping of waste products of any kind in or in close proximity to water bodies. • Heavy construction vehicles should be kept out of any water bodies and the movement of construction vehicles should be limited where possible to the existing roads and tracks. • Ensure that oil/ fuel spillages from construction vehicles and machinery are minimised and that where these occur, that they are appropriately dealt with. • Drip trays must be placed underneath construction vehicles when not in use to contain all oil that might be leaking from these vehicles. • Contaminated runoff from the solar salt works sites should be prevented from entering the surface and ground water bodies. • All materials on the solar salt works site should be properly stored. • Disposal of waste from the sites should be properly managed and taken to the designated landfill/dump site. • Construction & solar salt works employees should be given ablution facilities at the solar salt works sites that are located at least 30 m away from any surface water and ground water resources and should be regularly serviced. ▪ Washing of personnel or any equipment should not be allowed on site. Should it be necessary to wash construction equipment these should be done at an area properly suited and prepared to receive and contain polluted waters.
General waste	Visual impact and soil contamination	• The solar salt works site should be kept tidy at all times. All domestic and general construction waste produced on a daily basis should be cleaned and contained daily. • No waste may be buried or burned. • Waste containers (bins) should be emptied regularly and removed from site to a recognised (municipal) waste disposal site. All recyclable waste needs to be taken to the nearest recycling depot where practical. • A sufficient number of separate bins for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such.

Environmental Feature	Impact	Management Actions
		• Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter. • No waste may remain on site after the completion of the project. • All waste should be disposed of at a municipal approved waste disposal site.
Topsoil	Loss of topsoil and associated opportunity costs	• When excavations are carried out, topsoil[2] should be stockpiled in a demarcated area. ▪ Stockpiled topsoil should be used to rehabilitate post-construction degraded areas and/or other nearby degraded areas if such an area is located a reasonable distance from the stockpile.
Rehabilitation	Visual impact	▪ The stripping and clearing of land to create the salt ponds landscape and affects the visual the area. Since the operation is located in a national park its pristine state is crucial for the tourism industry. Tourists who visits this area mainly only pass through this area on their way to the nearby Cape Cross Seal Reserve. • At the moment the salt pans are not clearly visible from the road to Cape Cross that is mainly used by tourists. • Any future expansion of the salt mining operation should take the aesthetic value of the area into consideration and ensure that it does not become an eye sore. ▪ Upon completion of the construction phase consultations should be held with the local community/property owner(s) regarding the post-construction use of remaining salt works areas (if applicable). ▪ In the event that no post-construction uses are requested, all excavated/degraded areas need to be rehabilitated as follows: o Excavated areas may only be backfilled with clean or inert fill. No material of hazardous nature (e.g. sand removed with an oil spill) may be dumped as backfill. o Rehabilitated excavated areas need to match the contours of the existing landscape. o The rehabilitated area should not be higher (or lower) than nearby drainage channels. This ensures the efficiency of revegetation and reduces the chances of potential erosion. o Topsoil is to be spread across excavated areas evenly.

[2] Topsoil is defined here as the top 150mm of surface material, which accounts for the seedbank.

Environmental Feature	Impact	Management Actions
		○ Deep ripping of areas to be rehabilitated is required, not just simple scarification, so as to enable rip lines to hold water after heavy rainfall. ○ Ripping should be done along slopes, not up and down a slope, which could lead to enhanced erosion.
Covid-19, HIV/AIDS and TB training	Lack of awareness regarding implications of risky behaviour	The Contractor should approach the Ministry of Health and Social Services to co-opt a health officer to facilitate Covid19, HIV/AIDS and TB education programmes periodically on site during the construction phase.
Road safety	Injury or loss of life	• Demarcate roads clearly. • Off-road driving should not be allowed. • All vehicles that transport materials to and from the site must be roadworthy. • Drivers that transport materials should have a valid driver's license and should adhere to all traffic rules. • Loads upon vehicles should be properly secured to avoid items falling off the vehicle.
Safety around work sites	Injury or loss of life	• Excavations should be left open for the shortest time possible. • Excavate short lengths of trenches and box areas for services or foundations in a manner that will not leave the trench unattended for more than 24 hours. • Demarcate excavated areas, building material and topsoil stockpiles with danger tape. • Provide additional warning signage in areas of movement and in "no personnel" areas where workers are not active. • Borrow pits are to be fenced-off with steel wire fencing. • Work areas must be set out and isolated with danger tape on a daily basis. • All building materials and equipment are to be stored only within set out and demarcated work areas. • Only construction personnel will be allowed within these work areas. • 2 fire extinguishers should be available at fuel storage areas. • Comply with all waste related management actions stated above in this table.

Environmental Feature	Impact	Management Actions
Ablutions	Non-compliance with Health and Safety Regulations	• Separate toilets should be available for men and women and should clearly be indicated as such. • Portable toilets (i.e. easily transportable) should be available at every solar salt works site: ○ 1 toilet for every 15 females. ○ 1 toilet for every 30 males. ○ Sewage needs to be removed on a regular basis to an approved (municipal) sewage disposal site. Alternatively, sewage may be pumped into sealable containers and stored until it can be removed. ○ Workers responsible for cleaning the toilets should be provided with latex gloves and masks.
Open fires	Injury or loss of life	No open fires may be made anywhere on site.
General health and safety	Injury or loss of life	• The employees that are employed at the operation are exposed to various hazards such as injuries from the use of the various machineries on site. • The health problems associated with working on salt exploitation projects are skin infections/irritation, sore eyes, and respiratory illnesses • Minimize the amount of time spent by personnel on the salt pans during harvesting. • A fully stocked first aid kit should permanently be available on-site as well as an adequately trained member of staff capable of administering first aid. • All workers should have access to the relevant personal protective equipment. • Sufficient potable water reserves should be available to workers at all times. • No person should be allowed to smoke close to fuel storage facilities or portable toilets (if toilets are chemical toilets – the chemicals are flammable). • No workers should be allowed to drink alcohol during work hours. • No workers should be allowed on site if under the influence of alcohol. • Building rubble and domestic waste should be stored in skips. • Condoms should be accessible/ available to all construction workers. • Access to Antiretroviral medication should be facilitated.

Environmental Feature	Impact	Management Actions
Dust	Nuisance and health impacts	• A watering truck should be used on gravel roads with the most heavy vehicle movement especially during dry and windy conditions. However, due consideration should be given to water restrictions during times of drought. • The use of waterless dust suppression means (e.g. lignosulphonate products such as Dustex) should be considered. • Cover any stockpiles with plastic to minimise windblown dust. • Dust protection masks should be provided to workers if they complain about dust.
Noise	Nuisance impacts	Work hours should be restricted to between 08h00 and 17h00 where construction involving the use of heavy equipment, power tools and the movement of heavy vehicles is less than 500 m from residential areas. If an exception to this provision is required, all residents within the 500 m radius should be given 1 week's written notice.
Recruitment of labourers	Negative conflict regarding recruitment	The Contractor should compile a formal recruitment process including the following provisions as a minimum: • Adhere to the legal provisions in the Labour Act for the recruitment of labour (target percentages for gender balance, optimal use of local labour and SME's, etc.). • Recruitment should not take place at solar salt works sites. • Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside these agreed upon procedures. • Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those who are qualified and from the project area and only then look to surrounding towns. • Clearly explain to all job-seekers the terms and conditions of their respective employment contracts (e.g. period of employment etc.) - make use of interpreters where necessary. This will contribute to the alleviation of poverty which is rampant in Namibia and the attainment of Namibia's national development plans such as NDPs and the Harambee Prosperity Plan

Environmental Feature	Impact	Management Actions
Communication plan	Negative conflict with I&APs	The Contractor or proponent should draft a Communication Plan, which should outline as a minimum the following: • How Interested and Affected Parties (I&APs), who require ongoing communication for the duration of the construction period, will be identified and recorded and who will manage and update these records. • How these I&APs will be consulted on an ongoing basis. • Make provision for grievance mechanisms – i.e. how concerns can be lodged/ recorded and how feedback will be delivered as well as further steps of arbitration in the event that feedback is deemed unsatisfactory.
General communication	Negative conflict with I&APs	• The DR must appoint an ECO to liaise between the Contractor, I&APs, Developer. • The Contractor shall at every monthly site meeting report on the status of the implementation of all provisions of the EMP. • The Contractor should implement the EMP awareness training as stipulated above in this table. • The Contractor must list the I&APs of the project and their contact details with whom ongoing communication would be required for the duration of the contract. This list, together with the Communication Plan must be agreed upon and given to the DR before construction commences. • The Communication Plan, once agreed upon by the Developer, shall be legally binding. • All communication with the I&APs must take place through the ECO. • A copy of the EMP must be available at the site office and should be accessible to all I&APs. • Key representatives from the above mentioned list need to be invited to attend monthly site meetings to raise any concerns and issues regarding project progress. • The Contractor should liaise with the Developer regarding all issues related to community consultation and negotiation before construction commences. • A procedure should be put in place to ensure that concerns raised have been followed-up and addressed. • All people on the I&APs list should be informed about the availability of the complaints register and associated grievance mechanisms in writing by the DR prior to the commencement of construction activities.

Environmental Feature	Impact	Management Actions
Archaeology	Loss of heritage resources	• Should a heritage site or archaeological site be uncovered or discovered during the construction phase of the project, a "chance find" procedure should be applied in the order they appear below: o If operating machinery or equipment, stop work; o Demarcate the site with danger tape; o Determine GPS position if possible; o Report findings to the construction foreman; o Report findings, site location and actions taken to superintendent; o Cease any works in immediate vicinity; o Visit site and determine whether work can proceed without damage to findings; o Determine and demarcate exclusion boundary; o Site location and details to be added to the project's Geographic Information System (GIS) for field confirmation by archaeologist; o Inspect site and confirm addition to project GIS; o Advise the National Heritage Council of Namibia (NHCN) and request written permission to remove findings from work area; and o Recovery, packaging and labelling of findings for transfer to National Museum. • Should human remains be found, the following actions will be required: o Apply the chance find procedure as described above; o Schedule a field inspection with an archaeologist to confirm that remains are human; o Advise and liaise with the NHCN and Police; and o Remains will be recovered and removed either to the National Museum or the National Forensic Laboratory.

3.6 OPERATION AND MAINTENANCE PHASE

3.6.1 SALT MINING OPERATIONS PONDS AND MINING TECHNIQUES

The proponent, Skeleton Coast Sea Salt (Pty) Ltd intends to continue with the operation of solar salt works on 10 mining claims 68129 - 68138 at Cape Cross, Erongo Region, Namibia in an environmentally sustainable manner on the mining claims covering a total area of approximately 140 hectares and therefore an Environmental Clearance Certificate (ECC) is needed to continue undertaking this listed activity in a sustainable manner. The area is located in a slightly depressed thus allowing ground water to seep to the surface. This is done by removing the top layer of the surface to a depth of about 420mm to allow water to seep to the surface. The tailing that is generated from the stripping of the surface layer of soil is used to fill and create a boundary around the ponds. Once the salty water seeps to the surface it's allowed to solar evaporate to produce about 99.4 % pure sodium chloride (NaCl).

Figure 6: Salt pond within the mining claim areas (HEEC, 2022)

Figure 7: Solar evaporated salt heaps (HEEC, 2022)

The management actions included in **Table 3-4** below apply during the operation and maintenance phase of these developments.

Table 3-4: Operation and maintenance management actions

Environmental Feature	Impact	Management Actions
EMP training	Lack of EMP awareness and the implications thereof	All contractors appointed for maintenance work on the respective services infrastructure must ensure that all personnel are aware of necessary health, safety and environmental considerations applicable to their respective work.
Monitoring	EMP non-compliance	The ECO should monitor the implementation of the EMP: • The ECO should inspect the site before construction starts; and • The ECO should inspect the site at the end of the construction period.
Water	Surface and groundwater contamination	• Ensure that all properties are connected to a professionally designed and constructed water and wastewater infrastructure. • A no-go buffer area of at least 15 m should be allocated to any water bodies in the area. • No dumping of waste products of any kind in or in close proximity to any surface water bodies. • Contaminated runoff from the various operational activities should be prevented from entering any surface or ground water bodies. • Ensure that surface water accumulating on-site are channeled and captured through a proper storm water management system to be treated in an appropriate manner before disposal into the environment. • Disposal of waste from the various activities should be properly managed.
Aesthetics	Visual impacts	The proponent should consult with a view to incorporate the relevant local/national/international development guidelines which addresses the following: • The use of 'green' technologies within the architectural designs and building materials of the development. • The incorporation of indigenous vegetation, natural colours and building materials such as wood and stone into property development.

Environmental Feature	Impact	Management Actions
Energy efficiency	Waste of scarce resources	The proponent should consult, with the view to incorporate the relevant local/national/international development guidelines which addresses the following: • The use of solar geysers and solar panels for the general lighting and heating of water for buildings. • Use of designs and building materials, which reduce dependency on artificial heating and cooling. • The incorporation of water saving initiatives within the development's design and plans in order to reduce water demands.
Noise	Noise nuisance impact	The proponent should consult with the view to incorporate the relevant local/national/international guidelines to manage the generation of noise in the development area.
Waste management		• Sufficient waste storage containers are available on site. • Waste should be removed from new properties on a regular basis by an authorised waste management company. • All waste should be disposed of at a municipal approved waste disposal site. • Hazardous waste is separated from non-hazardous waste. • Hazardous waste should be disposed of at a registered hazardous waste disposal site.
Hazardous Substances		• Storage of the hazardous substances in a bunded area, with a volume of 120 % of the largest single storage container or 25 % of the total storage containers whichever is greater. • Refuel vehicles in designated areas that have a protective surface covering and utilise drip trays for stationary plant. • All fuel storage and handling facilities in Namibia must also comply with strict safety distances as prescribed by SANS 10089. SANS 10089 is adopted by the Ministry of Mines and Energy as the national standard. • All staff be trained with regards to the proper handling of these substances as well as First Aid in the case of spillage or intoxication. • Storage areas for all substances should be bunded and capable to hold 120% of the total volume of a given substance stored on site

Environmental Feature	Impact	Management Actions
		▪ Underground fuel tankers should be stored in proper containers and include appropriate risk control measures in the case of leakages or pollution. ▪ Specific safety features and protocols should be implemented in the case of a fire or explosion. ▪ Proper licensed and updated fire-fighting equipment should be installed and easily implemented. ▪ It must further be assured that sufficient water and sand is available for fire-fighting purposes. • Regular inspections should be carried out to inspect and test fire-fighting equipment and pollution control materials at the service station.

3.7 DECOMMISSIONING PHASE

The decommissioning of these developments is not foreseen. In the event that these developments are decommissioned the following management actions should apply.

Table 3-5: Decommissioning phase management actions

Environmental Feature	Management Actions
Deconstruction activity	Many of the mitigation measures prescribed for construction activity for these developments (**Table 3-3** above) would be applicable to some of the decommissioning activities. These should be adhered to where applicable.
Rehabilitation	In the event that decommissioning is deemed necessary, excavations need to be rehabilitated according to the management actions laid out in **Table 3-3** above.

3.8 CONCLUSIONS AND RECOMMENDATIONS

This is an existing small scale salt mining operation with a minimal ecological impact. The operation does not also pose any threat to the marine ecosystem as no water is pumped from the ocean or discharged into the ocean. This operation contributes to the alleviation of poverty in Namibia through the few jobs it provides to the locals and contributes to foreign exchange through the export of salt to other countries.

Although this operation is located in the Dorob National Park it does not affect the appeal of the park to tourists as the ponds are barely visible from the road that is used by tourists. Access to the site is also strictly controlled and no unauthorized entry is allowed. Therefore very few people have seen the operation in its entirety.

No impact with a "High" rating was identified during this study. Most of the impacts identified for this project were rated "medium" to "low" before mitigation. The effect of these impacts on the environment can be reduced to low and insignificant level through the implementation of the mitigation measures proposed for each impact.

It can thus be concluded that this project does not cause any significant impacts. Most of the potential impacts identified for this project are generic concerns associated with the operation of a salt mining operation like this one which can be satisfactorily mitigated through the full implementation of the updated Environmental Management Plan (EMP).

It is therefore recommended that this project must have its Environmental Clearance Certificate renewed on condition that the provisions of the updated Environmental Management Plan are fully implemented.

Appendix A – Water Quality Guidelines

THE WATER ACT, 1956 (ACT 54 OF 1956) AND ITS REQUIREMENTS IN TERMS OF WATER SUPPLIES FOR DRINKING WATER AND FOR WASTE WATER TREATMENT AND DISCHARGE INTO THE ENVIRONMENT

1. INTRODUCTION

The provisions of the Water Act are intended, amongst other things, to promote the maximum beneficial use of the country's water supplies and to safeguard water supplies from avoidable pollution.

The drinking water guidelines are not standards as no publication in the Government Gazette of Namibia exists to that effect. However the Cabinet of the Transitional Government for National Unity adopted the existing South African Guidelines (461/85) and the guidelines took effect from 1April 1988 under the signature of the then Secretary for Water Affairs.

The sections of the Water Act that relate to the discharge of industrial effluents are: -
Section 21(1) which states that
-- The purification of waste water shall form an integral part of water usage and
-- that purified effluents shall comply with the General Standard Quality restrictions as laid out in Government Gazette R553 of 5 April 1962 and
- Section 21(2) which further stipulate that this purified effluent be returned as close as possible to the point of abstraction of the original water.
Where a local authority has undertaken the duty of disposing of all effluents from an industrial process the provisions of Section 21(1) and 21(2) apply to the local authority and not the producer of the effluents. If there is difficulty in complying with these provisions then the applicant may apply for an exemption from the conditions in terms of Section 21(5) and 22(2) of the Water Act. The Permanent Secretary after consultation with the Minister may grant the issuance of a Waste Water Discharge Permit under Sections 21(5) and 22(2) subject to such conditions as he may deem fit to impose.

After independence, the Government of the Republic of Namibia decided that for the interim the existing guidelines will continue to be valid and to remain in use until a proper study has been conducted and new standards have been formulated (Article 140 of Act 1 of 1990).

2. GUIDELINES FOR THE EVALUATION OF DRINKING-WATER QUALITY FOR HUMAN CONSUMPTION WITH REGARD TO CHEMICAL, PHYSICAL AND BACTERIOLOGICAL QUALITY

Water supplied for human consumption must comply with the officially approved guidelines for drinking-water quality. For practical reasons the approved guidelines have been divided into three basic groups of determinants, namely:

- Determinants with aesthetic / physical implications: TABLE 1.
- Inorganic determinants: TABLE 2.
- Bacteriological determinants: TABLE 3.

2.1 CLASSIFICATION OF WATER QUALITY

The concentration of and limits for the aesthetic, physical and inorganic determinants define the group into which water will be classified. See TABLES 1 and 2 for these limits. The water quality has been grouped into 4 quality classes:

2.1 Group A: Water with an excellent quality
2.2 Group B: Water with acceptable quality
2.3 Group C: Water with low health risk
Group D: Water with a high health risk, or water unsuitable for human consumption.

Water should ideally be of excellent quality (Group A) or acceptable quality (Group B), however in practice many of the determinants may fall outside the limits for these groups.

If water is classified as having a low health risk (Group C), attention should be given to this problem, although the situation is often not critical as yet.

If water is classified as having a higher health risk (Group D), urgent and immediate attention should be given to this matter.

Since the limits are defined on the basis of average lifelong consumption, short-term exposure to determinants exceeding their limits is not necessarily critical, but in the case of toxic substances, such as cyanide, remedial measures should immediately be taken.

The overall quality group, into which water is classified, is determined by the determinant that complies the least with the guidelines for the quality of drinking water.

TABLE 1: DETERMINANTS WITH AESTHETIC / PHYSICAL IMPLICATIONS

DETERMINANTS	UNITS*	LIMITS FOR GROUPS			
		A	B	C	D**
Colour	mg/l Pt***	20			
Conductivity	mS/m !at 25 °C	150	300	400	400
Total hardness	mg/l $CaCO_3$	300	650	1300	1300
Turbidity	N.T.U****	1	5	10	10
Chloride	mg/l Cl	250	600	1200	1200
Chlorine (free)	mg/l Cl	0,1- 5,0	0,1 – 5,0	0,1 – 5,0	5,0
Fluoride	mg/l F	1,5	2,0	3,0	3,0
Sulphate	mg/l SO_4	200	600	1200	1200
Copper	µg/l Cu	500	1000	2000	2000
Nitrate	mg/l N	10	20	40	40
Hydrogen Sulphide	µg/l H_2S	100	300	600	600
Iron	µg/l Fe	100	1000	2000	2000
Manganese	µg/l Mn	50	1000	2000	2000
Zink	mg/l Zn	1	5	10	10
pH****	pH-unit	6,0 – 9,0	5,5 – 9,5	4,0 – 11,0	4,0 – 11,0

* In this and all following tables "l" (lower case L in ARIAL) is used to denote dm^3 or litre
2.3 All values greater than the figure indicated.
2.2 Pt = Platinum Units
3.0 Nephelometric Turbidity Units
***** The pH limits of each group exclude the limits of the previous group

TABLE 2: INORGANIC DETERMINANTS

DETERMINANTS	UNITS	LIMITS FOR GROUPS			
		A	B	C	D*
Aluminium	µg/l Al	150	500	1000	1000
Ammonia	mg/l N	1	2	4	4
Antimonia	µg/l Sb	50	100	200	200
Arsenic	µg/l As	100	300	600	600
Barium	µg/l Ba	500	1000	2000	2000
Beryllium	µg/l Be	2	5	10	10
Bismuth	µg/l Bi	250	500	1000	1000
Boron	µg/l B	500	2000	4000	4000
Bromine	µg/l Br	1000	3000	6000	6000
Cadmium	µg/l Cd	10	20	40	40
Calcium	mg/l Ca	150	200	400	400
Calcium	mg/l $CaCO_3$	375	500	1000	1000
Cerium	µg/l Ce	1000	2000	4000	4000
Chromium	µg/l Cr	100	200	400	400
Cobalt	µg/l Co	250	500	1000	1000
Cyanide (free)	µg/l CN	200	300	600	600
Gold	µg/l Au	2	5	10	10
Iodine	µg/l I	500	1000	2000	2000
Lead	µg/l Pb	50	100	200	200
Lithium	µg/l Li	2500	5000	10000	10000
Magnesium	mg/l Mg	70	100	200	200
Magnesium	mg/l $CaCO_3$	290	420	840	840
Mercury	µg/l Hg	5	10	20	20
Molybdenum	µg/l Mo	50	100	200	200
Nickel	µg/l Ni	250	500	1000	1000
Phosphate	mg/l P	1	See note below	See note below	See note below
Potassium	mg/l K	200	400	800	800
Selenium	µg/l Se	20	50	100	100
Silver	µg/l Ag	20	50	100	100
Sodium	mg/l Na	100	400	800	800
Tellurium	µg/l Te	2	5	10	10
Thallium	µg/l Tl	5	10	20	20
Tin	µg/l Sn	100	200	400	400
Titanium	µg/l Ti	100	500	1000	1000
Tungsten	µg/l W	100	500	1000	1000
Uranium	µg/l U	1000	4000	8000	8000
Vanadium	µg/l V	250	500	1000	1000

All values greater than the figure indicated.

Note FOR Table 2 on phosphate: Phosphates are not toxic and essential for all life-forms. Natural water will, however, seldom contain phosphate; it is generally seen as an indicator of pollution and is usually accompanied by other pollutants. Wherever drinking water is combined with or consists wholly of reclaimed or recycled water, it may be expected to contain phosphate. The general guideline for a concentration level to be aimed at is 1 mg/l as P. But in many cases this may be difficult to achieve technically. For this reason the Department will allow a phosphate concentration level of up to 5 mg/l as P in water intended for human consumption. Please refer also to the "Note on Phosphate" under Section 3: General Standards for Waste/Effluent.

2.2 BACTERIOLOGICAL DETERMINANTS

The bacteriological quality of drinking water is also divided into four groups, namely:

- Group A: Water which is bacteriological very safe;
- Group B: Water which is bacteriological still suitable for human consumption;
- Group C: Water which is bacteriological risk for human consumption, which requires immediate action for rectification;
- Group D: Water, which is bacteriological unsuitable for human consumption.

TABLE 3: BACTERIOLOGICAL DETERMINANTS

DETERMINANTS	LIMITS FOR GROUPS			
	A**	B**	C	D*
Standard plate counts per 1 ml	100	1000	10000	10000
Total coliform counts per 100 ml	0	10	100	100
Faecal coliform counts per 100 ml	0	5	50	50
E. coli counts per 100 ml	0	0	10	10

* All values greater than the figure indicated.
** In 95% of the samples.

NB If the guidelines in group A are exceeded, a follow-up sample should be analysed as soon as possible.

2.3 FREQUENCY FOR BACTERIOLOGICAL ANALYSIS OF DRINKING-WATER SUPPLIES

The recommended frequency for bacteriological analysis of drinking water is given in Table 4.

TABLE 4: FREQUENCY FOR BACTERIOLOGICAL ANALYSIS

POPULATION SERVED	MINIMUM FREQUENCY OF SAMPLING
More than 100 000	Twice a week
50 000 – 100 000	Once a week
10 000 – 50 000	Once a month
Minimum analysis	Once every three months

3 GENERAL STANDARDS FOR WASTE / EFFLUENT WATER DISCHARGE INTO THE ENVIRONMENT

All applications in terms of Section 21(5) and 22(2), for compliance with the requirements of Section 21(1) and 21(2) of the Water Act (Act 54 of 1956) that purified water shall comply with the General Standard as laid out in Government Gazette Regulation R553 of 5 April 1962.

TABLE 5 GENERAL STANDARDS FOR ARTICLE 21 PERMITS (EFFLUENTS)

DETERMINANTS	MAXIMUM ALLOWABLE LEVELS
Arsenic	0,5 mg/l as As
Biological Oxygen Demand (BOD)	no value given
Boron	1,0 mg/l as B
Chemical Oxygen Demand (COD)	75 mg / l as O
Chlorine, residual	0,1 mg/l as Cl_2
Chromium, hexavalent	50 Ng/l as Cr(VI)
Chromium, total	500 Ng/l as Cr
Copper	1,0 mg/l as Cu
Cyanide	500 Ng/l as CN
Oxygen, Dissolved (DO)	at least 75% saturation**
Detergents, Surfactants, Tensides	0,5 mg/l as MBAS – See also Note 2
Fats, Oil & Grease (FOG)	2,5 mg/l (gravimetric method)
Fluoride	1,0 mg/l as F
Free & Saline Ammonia	10 mg/l as N
Lead	1,0 mg/l as Pb
Oxygen, Absorbed (OA)	10 mg / l as O*
pH	5,5 – 9,5
Phenolic Compounds	100 Ng/l as phenol
Phosphate	1,0 mg/l as P - See also Note 1
Sodium	not more than 90 mg/l Na more than influent
Sulphide	1,0 mg/l as S
Temperature	35°C
Total Dissolved Solids (TDS)	not more than 500 mg /l more than influent
Total Suspended Solids (TSS)	25 mg/l
Typical faecal Coli.	no typical coli should be counted per 100 ml
Zinc	5,0 mg/l as Zn

* Also known as Permanganate Value (or PV).
** In Windhoek the saturation level is at approx. 9 mg/l O_2.

Note (1) on phosphate: Phospates are not toxic and essential for all life forms. Natural water will seldom contain phosphate; it is generally seen as an indicator of pollution and is usually accompanied by other pollutants. Wherever drinking water is combined with or consists wholly of reclaimed or recycled water, it may be expected to contain phosphate. There is no general guideline for phosphate contained in the Regulation 553. But generally it is assumed that eutrophication or algal bloom in dams is promoted by nutrient concentrations as low as 0,01 mg/l as P; generally a phosphate concentration limit for dams of 0,1 mg/l is recommended. All water that is consumed and subsequently discharged, will eventually end up in rivers, dams or

groundwater – that is why for potable water, a concentration level of 1 mg/l as P is aimed at.

But, again, in many cases of waste and effluent treatment, this may be difficult to achieve technically, or the required waste and effluent treatment infrastructure is not available; as the required infrastructure is sophisticated and expensive. The current situation calls for a compromise and for this reason, this Department will judge each application individually on its merits and allow, in certain cases, a phosphate concentration level of up to 15 mg/l as P in any effluent or waste stream to be discharged into the environment. This regulation is subject to be reviewed every two years, calculated from the date of approval of this document.

Note (2) on detergents, surfactants and ten sides: The MBAS (or methylene blue active substances) – test does not encompass all surface active compounds currently, commercially available. The limit given is therefore only a guideline. Many of the cleaning agents are toxic to biological life-forms in rivers and dams.

It should be taken into consideration that some commercial products interfere with the effective removal of oil, fat and grease by grease and fat traps, by breaking up such long-chain molecules into shorter ones. These cleaning agents thus effectively allow such components to pass through the traps and land into sections of a treatment plant further down the line and interfere with the process there.

Many cleaning agents contain very powerful disinfectants, and/or biocides. Such substances may interact with biological treatment processes. They may reduce the effectiveness of such treatment or 'kill' it completely, if they land in septic tanks, biofilters or even activate-sludge plants. Their activity may be attenuated by dilution.

4. AUTHORIZATION

Herewith, the Guidelines for the Evaluation of Drinking Water for Human Consumption with regard to Chemical, Physical and Bacteriological Quality, as well as the General Standards for Article 21* Permits, amended for detergents, surfactants, ten sides, as well as phosphates, are confirmed and remain in force until further notice.

Issued under my hand with the authority vested in my office, within the Ministry for Agriculture, Water and Rural Development,

PERMANENT SECRETARY
Dr V Shivute

WINDHOEK, DATE STAMP

Appendix B: COVID-19 Risk Assessment form (as amended periodically based on developing medical information)

Return to Work Medical Screening

Surname:		**First Name:**		**Company Number**	
Date Of Birth:		**Occupation:**		**Department:**	
Date Employed:		**Date Discharged:**		**Length Of Service:**	

1.

	Vital Data		
	Blood Pressure	**mmHg**	
2.	**Pulse**	**Bpm**	
	Temperature	**°C**	
	HGT (for known diabetics)	**mmol/L**	
3.	**Have you ever had a serious occupational accident or an occupational disease?**	**Yes**	**No**
	Describe		

	Chronic Disease	Yes	No
4.	Hypertension		
	Diabetes		
	Epilepsy		
	Asthma		
	TB		
	Psycho-social problems **		
	If yes and symptomatic, or any vital signs out of normal limits, refer to the medical centre		
	** If yes, refer to the medical centre for referral for EAP		
5.	Do you take any medication (List Below)	Yes	No

	Symptom Check	**Yes**	**No**
6.	**Fever**		
	Cough		
	Sore Throat		
	Shortness of breath		
	Any contact with person diagnosed with COVID—19		
	If any symptoms are present refer the employee to the isolation area		
7.	**Status** **(Tick appropriate box)**		
	Fit to work		
	Refer to medical centre		
	Refer to isolation area		

I hereby declare that all the information furnished above is, to the best of my knowledge, true and correct and that no information has been omitted or withheld.

Signature of employee: _____

Assessed by: _____

Appendix C: Previously issued Environmental Clearance Certificate

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel (00 26461) 284 2111
Fax (00 26461) 229 936

Cnr Robert Mugabe &
Dr Kenneth Kaunda Street
Private Bag 13306
Windhoek
Namibia

Enquiries: Mr. Ipeinge Mundjulu
E-mail: ipeinge.mundjulu@met.gov.na

10 October 2017

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

The Managing Director
Skeleton Coast Sea Salt (Pty) Ltd
P O Box 680
Walvis Bay

Dear Sir/Madam

SUBJECT: ENVIRONMENTAL CLEARANCE CERTIFICATE FOR THE OPERATION OF A SALT WORKS ON 10 MINING CLAIMS 68129-68138 AT CAPE CROSS, ERONGO REGION

The Environmental Impact Assessment and Environmental Management Plan submitted is sufficient as it made provision of the environmental management concerning the proposed activities. From this perspective regular monitoring and evaluation on environmental performance should be conducted. Targets for improvements should be established and monitored from time to time.

In the view of the fact that your project is located in an environmentally sensitive area, this Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project. From this perspective, I issue the clearance with the following conditions attached on annex 1, applicable to activities in the protected areas.

On the basis of the above, this letter serves as an environmental clearance certificate for the project to commence. However, this clearance letter does not in any way hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from this project's activities. Instead, full accountability rests with Skeleton Coast Sea Salt (Pty) Ltd.

This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office.

Yours sincerely,

Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER

Office of the

"Stop the poaching of our rhinos"

REPUBLIC OF NAMIBIA

MINISTRY OF MINES AND ENERGY
Office of the Mining Commissioner

Tel.: +264 61 284-8276/77
Fax: +264 61 284-8299
E-mail. info@mme.gov.na
Website: www.mme.gov.na

1 Aviation Road
Private Bag 13297
WINDHOEK

Enquiries	**Mr Asser /Goagoseb**
Reference Number	**14/2/2/1/2/6677**
Date	**15 November 2017**

The Managing Director
Skeleton Coast Sea Salt (Pty) Ltd
PO Box 680
WALVIS BAY

Dear Sir/Madam

RENEWAL APPLICATION OF TEN MINING CLAIMS WITH ORDINAL NUMBERS 1-10 WITH REGISTRATION NUMBERS 68129-68138 IN TERMS OF SECTION 36(1)(a) AND (c) OF THE MINERALS (PROSPECTING AND MINING) ACT, No. 33 OF 1992 (HEREINAFTER "the Act").

With reference to your application dated 11 December 2015 and 15 November 2017 to renew the above-mentioned mining claims we attach the Certificate of Renewal of Mining Claims issued in respect of the approval of such renewal.

Please note that this renewal is subject to certain general terms and conditions as set out on page 2 of the said certificate. Acquaint yourselves with these terms and conditions as well as the general provisions of the Act with respect to mineral licences and mining claims in particular.

Bear in mind that should you fail to adhere to these terms and conditions, your mining claims will be cancelled in terms of Section 55 of the Act.

Yours sincerely,

16/11/2017

MR EI SHIVOLO
MINING COMMISSIONER

Official Date Stamp