



REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

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Department of Environmental Affairs

Cnr of Robert Mugabe &
Kenneth Kaunda Street
Private Bag 13306,
Windhoek

PRO FORMA ENVIRONMENTAL CONTRACT FOR SAND MINING

Village/town	Region	Constituency
Oranjemund	Karas	Oranjemund

Affix
Revenue
stamps here

Environmental Management Act, 2007 (Section 32)

PART 1 A: DETAILS OF APPLICANT

1. Name (person or business): Oranjemund Town Council

2. Business registration/identity no. N/A

3. Correspondence address: P O Box 178, Oranjemund

4. Name of contact person: Mr. Nestor Sheimi

5. Position of contact person: Health Officer

6. Telephone or cell phone number: 063 233 500 / 0811555615

7. Fax number: _____

8. Email address: health@ormdtc.com.na

NB: The completion of this questionnaire is a requirement under Section 20(1) of the Environmental Management Act no. 07 of 2007. Therefore it must be filled in as truthfully and reliably as possible. It must be noted here that the proponent is accountable for any wrong and misleading information that may be provided in this questionnaire. From this perspective, any person who completes this questionnaire must read and sign the declaration on the last page of this questionnaire.

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand that the environmental clearance certificate may be suspended, amended or cancelled if any information given above is false, misleading, wrong and incomplete.

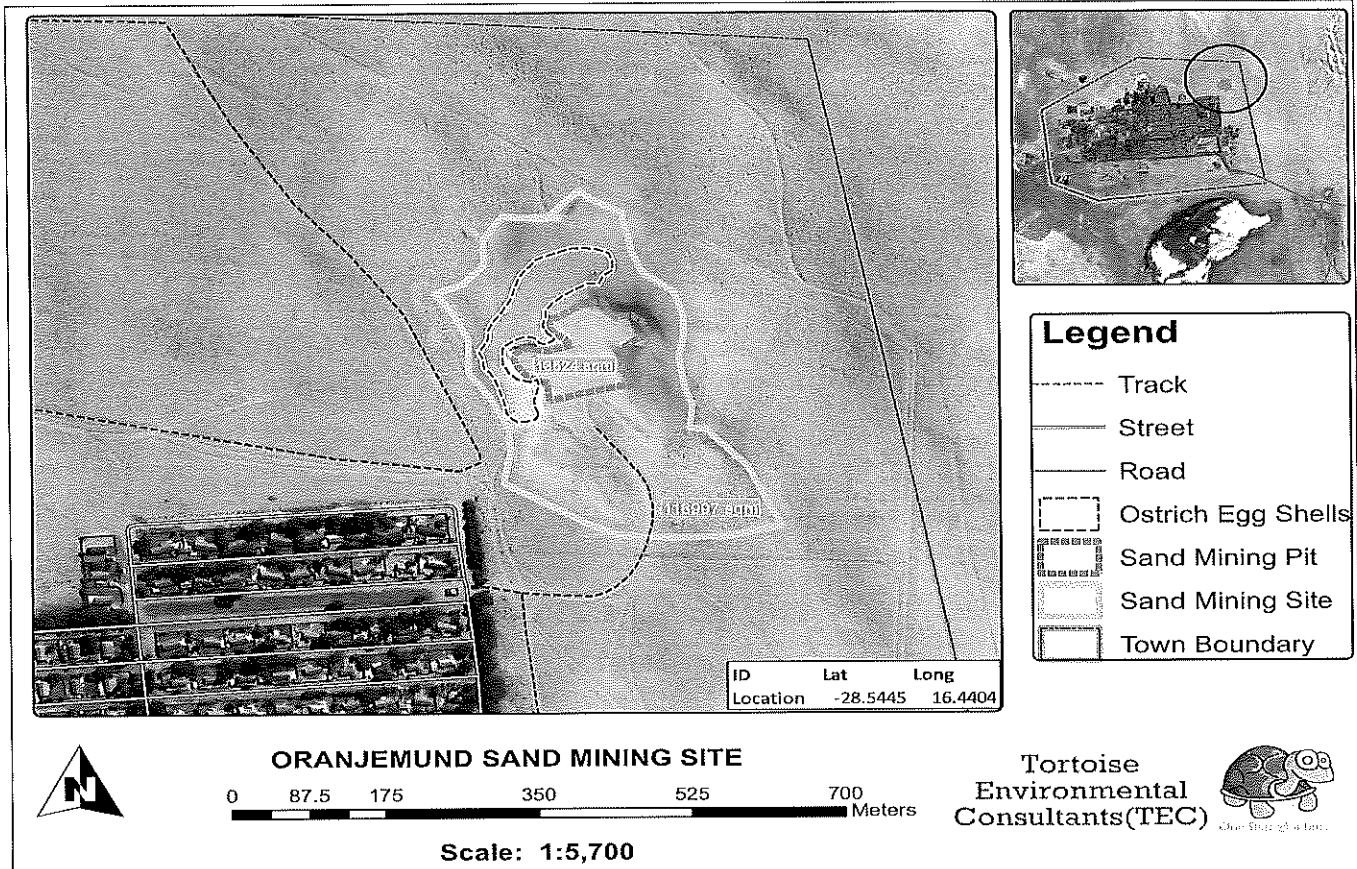
77 2020/07/29
Signature of applicant

Shali Akwecwenga Chief Executive Officer
Full name in block letters Position

on behalf of Oranjemund Town Council 2020/07/29
Date

TO: _____ Date: _____
2020-07-26
PO Box 178
Tel: 083-233500

PART 1 B: DRAW PLAN OF THE PROPOSED SITE INDICATING SURROUNDING FEATURES:

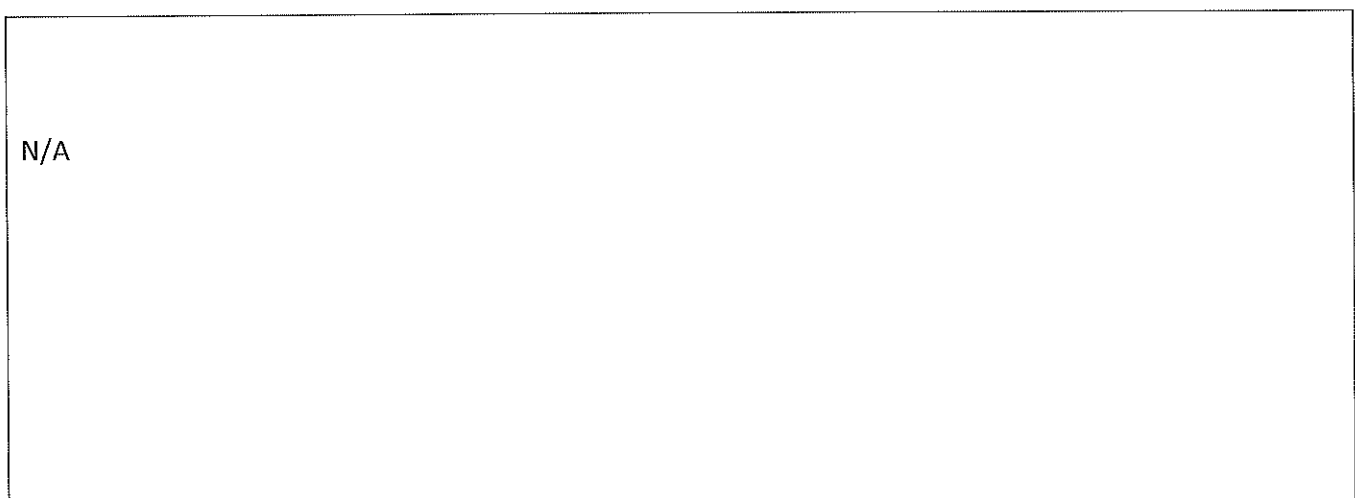


NB: The Plan must include

- Latitude and longitude of the area
- Thematic map for land uses in proximity of the proposed site (and the surrounding 1 km)
- Water bodies such as rivers, lakes, ponds etc.
- Any forest area, natural reserve and game reserve etc.

Note: The name of each area on map must be provided

PART 1 C: DRAW PLAN OF THE ALTERNATIVE SITE AND SURROUNDING FEATURES:



N/A

NB: The Plan must include

- Latitude and longitude of the area
- Thematic map for land uses in proximity of the proposed site (and the surrounding 1 km)
- Water bodies such as rivers, lakes, ponds etc.
- Any forest area, natural reserve and game reserve etc.

Note: The name of each area on map must be provided

PART 2 A: CONSENT BY VILLAGE HEADMAN / WOMAN OR TRADITIONAL AUTHORITY OR PRIVATE FREEHOLDER

For Village Headman

1. Name of TA headman/freeholder:
2. Postal address:
3. Telephone or Mobile no.:
4. Email address (if applicable):

Comment and recommendation by the Village Headman / Freeholder

.....
.....

Stamp and signature of representative: Date:

For Traditional Authority or Freeholder

1. Name of TA headman/freeholder:
2. Postal address:
3. Telephone or Mobile no.:
4. Email address (if applicable):

Comment and recommendation by the traditional authority /private freeholder (landowner)

.....
.....

Stamp and signature of representative: Date:

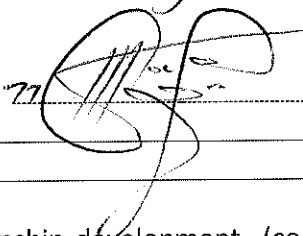
PART 2 B: CONSENT BY REGIONAL COUNCIL OR LOCAL AUTHORITY

For regional council or local authority represented by Chief Regional Officer (CRO) or Chief Executive Officer (CEO)

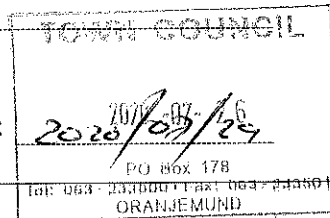
1. Name of CRO/CEO: Shali AKWANNYENSA
2. Postal address: P.O Box 178, ORANJEMUND
3. Telephone or Mobile no: 063 233 500
4. Email address (if applicable): CEO@oim.mt.cw.com.na

Comment and recommendation by the Chief Regional Officer or Chief Executive Officer

Recommended without any objections

Stamp and signature of representative: 

Date:



EXECUTIVE SUMMARY:

Sand is an important element for township development (construction of roads housing, landscaping, etc), and it is one of the key building blocks for socio-economic development, and hence it is inevitable (cannot be avoided). However, such developmental activities should be conducted in a thoughtful and forward looking manner.

NB: The completion of this questionnaire does not revoke provision 33 of the Environmental Management Act No. 7 of 2007 for the Environmental Commissioner to decide whether an activity requires an assessment but complements the process. Therefore a full environmental impact assessment (EIA) process may be required depending on the magnitude of the proposed project.

PART 3: GENERAL DESCRIPTION OF THE PROJECT

Please tick the appropriate answer with an (✓).

1. General information:

Name of the site:	Oranjemund Sand Mining Borrow Pit
Size of the site (hectares):	Total recommended: 11.7 ha : Already mined: 1.4 ha
Tenure of operation (years):	3 years
Expected cost of the project:	N\$ 20 000 / month

2. Sourcing of sand:

Activity site	Yes	No
River/floodplain		✓
Lake/reservoir		✓
Agricultural land		✓
Seaside/Watercourse		✓
Homestead/crop fields		✓
Others, please specify: The site is located in sandy area (dunes), within the Oranjemund Town Lands		

3. What is: (a) the **intended use** of sand and (b) the **scale and volume of proposed sand mining**:

Intended use of sand	Tick mark (✓)
Household-building activities	✓
Commercial housing construction	✓
Commercial road construction	✓
Commercial bulk sale	✓
Others: For filling low lying area	✓

Scale and total volume of proposed sand mining (Unit)	Tick mark (✓)
<100 m ³	
100 – 500 m ³	
500 – 1000 m ³	
>1,000 m ³	✓

4. Location sensitivity details

(a) Is the proposed activity site near/in the following installations?

Important installations	Yes/no	Name	Distance (m)
Public utility (i.e. schools, colleges, hospitals, picnic spots, bridges etc.)	No		
Tourist site / worship area / graveyard	No		
Governmental installations (e.g. police stations, government, building, defense installations, etc.)	No		
Protected area	No		
Any other installation nearby? Please specify: None			

Note: Sustainable sand mining guidelines state that the proposed area should be away from these important installations. Guidelines also specify certain distances as per the sensitivity of the area.

Remarks if any:
 The site does not pose any threat to any installation. A public complain register shall be kept at the Town council offices to register and address any public complain or dissatisfaction reported.

(b) Land use pattern of site lease

Land type	Area (hectare)
- Private land	
- Government land ✓	<u>11.7 ha (Town Lands)</u>
- Other (specify) Communal	
- Total	

(c) Is the project likely to affect local community member(s)?
Yes No

(d) If the answer is yes, does the proposed project involve people relocation?
Yes No

(e) If the answer is yes

Number of affected people

Types of compensation

(f) Was compensation provided to affected people? Yes No

If the answer is yes, describe the compensation and other amenities provided.

N/A

Section 44 of Environmental Management Act No. 7 of 2007, and Sub-Regulation 21 provide guidance on consultative procedures and methods that must be followed during the environmental assessment process for listed activities. This is necessary to allow the public (Interested and Affected Parties) to give input on how best to avoid and/or mitigate potentially negatives impacts.

5. Public consultations:

(a) Were public consultations held? Yes No

If the answer is yes, please attach proof with the application.

If the answer is no, please refer to the EMA Regulation 21—conduct and attach proof.

(b) Are the project concept note and/or activities shared with members of the community?
Yes No

If the answer is yes, provide a copy of the concept note.

If the answer is no, please consult community and attach proof:

(c) Are there any other mines located adjacent to the proposed project site?
Yes No

If the answer is yes, provide the name and type of the mines within a radius of 1 km.

Oranjemund Mine – NAMBED Mining Area one (1), but the mine is more than 10 km away from the sand mining borrow pit

(c) Attach a No Objection Certificate from the concerned authority with the application (attached)

(d) Is there complaint of air and water pollution due to existing mines near the proposed site?

Yes No

(e) Will the project affect the local drainage or drainage pattern?

Yes No

If the answer is yes, describe the number of natural drains likely to be impacted and whether the project proponent has taken any initiatives to avoid/minimize impacts. Give details of such initiatives.

N/A

6. Local biodiversity

(a) Does the site preparation require clearing of vegetation (including cutting of trees)?

Yes No

If the answer is yes, please furnish the following details?

1. Description the type of vegetation and number of species to be affected:

2. Number of trees proposed to be cut:

(b) Are these species categorized as protected/endemic/endangered/threatened species?

Yes No

If the answer is yes, provide details

(c) Does the proposed project impact local fauna?

Yes No

(d) If the answer is yes, will it impact protected/endemic/endangered/threatened species?

Yes No

If yes, provide details

e) Soil type and characteristics, tick appropriate: Sand Clay Loam Other
Please provide description: Top Soil used for back-filling

7. Sand mining details

(a) Method of mining operations

No.	Type	Please tick	Size of site (large / medium / small)	Mining method (manual / semi-mechanized / mechanized / any other (specify))
1	Open cast	✓	Medium	Mechanized
2	Others (specify)			

(b) Number of mining shift: **Limited to day operation only (07h00 – 17h00)**

(c) Proposed maximum depth of the borrow pit (m): **2.5m**; does it intersect with ground water table? **No**

(d) Top soil generation (m³): **None: The top soil is used to refill excavated area**

Applicable if mining is proposed on agricultural land or a crop field or homestead.

Proposed measures for top-soil conservation and management

N/A

(e) In the case of river-sand mining, provide following information:

Distance from hydraulic structure such as pumping station, water intakes, and bridges

N/A

Number of other operators within 1 km upstream

N/A

Number of other operators within 1 km downstream

N/A

Distance of proposed mining site from the bank

N/A

8. Resource requirement:

(a) Mode of **transportation** of mined material

Tipper / Dump Trucks

If dumper / trucks is used, Expected number of dumpers

Two (2)

List the equipment to be used during mining operation.

Excavator and Tipper / Dump Trucks

(b) Will the project use **blasting / explosives**

Yes

No

If the answer is yes, has the proponent obtained the permit / licence from an authorized body? If yes,

attach a copy of the permit / licence with the application.

(c) **Water**

Source of water

Quantity of water used (m³ / day)

(d) **Employment:**

- Total employment potential from proposed mine: About six (6) staff members: Machine Operators (excavator), Truck Drivers, Maintenance staff (Repair and servicing)

- Types of employment: Contract Daily wage Permanent

(e) **Fuel requirement**

Quantity of fuel (litre/day): Estimate: about 500 L/d, for excavators and tipper trucks

If fuel is stored at site, describe the safeguard measures that would be undertaken

NO fuel is stored on site. However re-fuelling of the excavator shall be done on site. A drip tray shall be used next to the nozzle of the diesel tank. A specialised pump shall be used to ensue zero spillage. Servicing of machinery shall NOT take place at the sand mining site.

9. Road construction:

(a) Describe the road connectivity from the proposed site.

The site is located within the Oranjemund Town Lands, with already existing access roads (tracks), with very low traffic flow, hence posing no disruption of traffic to the public or other commercial vehicles and machinery.

(b) Will proposed site require construction of new roads?

Yes No

If the answer is yes,
Length of the road (km)

Type of road constructed

Number of trees to be cut during the construction

PART 5: ENVIRONMENTAL MANAGEMENT PLAN

Sand mining is a listed activity as per the Environmental Management Act No. 7 of 2007 and it may not be undertaken without a valid Environmental Clearance Certificate. Therefore, it is recommended that an Environmental Management Plan section of this application is completed or a detailed separate EMP submitted.

ENVIRONMENTAL CONSERVATION

<p>Conservation of flora (including cultivated crop fields, riverine ecosystems and River flow Regime)</p>	<p>Proposed mitigation measures for conservation of flora The sand mining site is barren and devoid of any vegetation, and rather comprises of sand dunes</p>
<p>Conservation of fauna (including wildlife and livestock)</p>	<p>Proposed mitigation measure for conservation of fauna There is NO vegetation and there is NO livestock, and only wildlife such as Oryx are observed in the surrounding area; 1. Repair the Fence for the Sand Mining site to keep prevent wildlife from entering into the Borrow Pit</p>
<p>Rehabilitation of mined site (including borrow pits, tracks and roads)</p>	<p>Proposed measure for rehabilitation and resettlement In principle, an open pit poses safety and environmental risk. People and animals may fall into the pit, particularly at night. It is therefore recommended that the rehabilitation plan must encompass the following;</p> <ol style="list-style-type: none"> 1) Fencing <ul style="list-style-type: none"> • To ensure safety (for both people and animals), the mining area and all pits that are not fully rehabilitated should be fenced off, 2) Staff training and awareness <ul style="list-style-type: none"> • Staff must be trained and made aware of the rehabilitation measures and their specific roles during implementation. 3) Site Clean up <ul style="list-style-type: none"> • Contaminated soils and any material brought to the site must be collected and be disposed of at an appropriate site. Burying of waste or any foreign material at the site is prohibited. 4) Trimming and Smoothing of the pit slope <ul style="list-style-type: none"> • To maximize safety and mitigate soil erosion, the pit contours must be even and the sharp slopes should be smoothed and not steeper than 1:3 ratio. • To prevent formation of gullies, deliberate cut-off drains should be designed to guide storm water into the pit. 5) Top Soil / Overburden <ul style="list-style-type: none"> • Generally top soil contain seeds should be used for the smoothing of steep slopes and re-filling to allow natural re-vegetation.

- 6) Compaction of disturbed surrounding
 - The compacted soil must be shallowly ripped to stimulate regrowth of vegetation.
- 7) Access roads
 - Access road made for this operation and would be no longer serve any purpose after project closure, should be rehabilitated by ripping the road surface to allow regrowth of vegetation.
- 8) Safety
 - Since substantial quantities of sand material would be removed, even after rehabilitation, the pit may not be completely covered and there could be a potential risk ponding, which (if it occurs) would pose a risk of drowning, particularly during the rainy season (winter rainfall area). Hence, due diligence should be applied, to ensure safety before, during and after rehabilitation

ENVIRONMENT PROTECTION

<p style="text-align: center;">Air pollution</p>	<p>Proposed mitigation measures for air pollution / dust control</p>
	<p>Air pollution is mainly to be expected for dust, hence to ensure public health and safety, the following mitigation measures should be implemented.</p> <ol style="list-style-type: none"> 1) Use dust suppression measures to mitigate dust impacts, e.g. Investigate the potential use of 'grey' water, or use alternative method such as DUSTEX, etc; 2) Avoid working during extreme windy conditions; 3) Provide dust masks and ear muffs to all employees operating in a dusty or noisy environment; 4) Reduce vehicle speed on sand roads; 5) All vehicles transporting sand or sand should be covered with a tarpaulin, or any other suitable material, and; 6) Industrial speed limits of 40km on sand road should be maintained.
<p style="text-align: center;">Protection of water resources</p>	<p>Proposed mitigation measures for water-pollution control and prevention and for conservation of water resources</p>
	<p>Oranjemund is situated in a desert area with sand dunes and the water table within the basin is estimated to be beyond the 10 m depth, which indicates a low potential risk of water contamination. However, precautions need to be taken to mitigate any potential groundwater contamination from the sand mining operations. Therefore, incidents of fuel, oil and lubricants leakages should be monitored closely. Therefore, the proponent must ensure that;</p> <ol style="list-style-type: none"> 1) There is an immediate spill response kit on site. Employees should be properly trained on dangers oil pollutions and response actions; 2) If an oil spill occurs, collect the contaminated soil, store in drums or appropriate structures and dispose at approved waste disposal site; 3) Ensure all vehicle are well service and leak inspection are done; 4) Provide drip trays to stationary vehicle; 5) No servicing of vehicle must be done on site; 6) Re-fuelling must be done on bunded on site.

Noise	Proposed mitigation measures for noise
	<p>Apart from the movement of trucks during the day, there would be minimal noise pollution threat to the residents (particularly at night when operations have ceased) and only the operators would be potentially exposed to machinery noise. To mitigate noise pollution, the following mitigation measure should be taken into consideration.</p> <ol style="list-style-type: none"> 1) Only work during normal working hours (07h00 -17h00), avoid working at night, unless for emergency e.g filling up flooded areas; 2) Provide employees with earmuffs; 3) Vehicles and machines must be well serviced to avoid unnecessary noise emission;

ENVIRONMENT PROTECTION Continues.	
Health and safety of workers	Proposed measures for safety and health
	<p>General Safety at work place;</p> <ol style="list-style-type: none"> 1) Develop a Health and Safety Plan (should be part of the induction) 2) Ensure that all employees goes through an induction session safety for their own safety, other employees and the general public; 3) Employees must be equipped with all necessary Personal Protective Equipment (PPE). These includes: Helmet, Safety Shoes, Safety Glasses, Earmuff etc; 4) During operation, minor accident are eminent, hence there must be a first aid kit on site (in each vehicle); 5) Only qualified and licenced personnel must be allowed to operate machinery and vehicles; 6) No employee must be allowed to be onsite without PPE; 7) Adequate safety warning signs must be displayed on site. <p>Health;</p> <ol style="list-style-type: none"> 1) Employees must NOT be exposed to noise levels above the required -85dB (A) limit over a period of 8 hours. Should the noise level be higher than 85dB (A), the employer must implement a hearing conservation program such as noise monitoring; 2) It is the responsibility of employees to ensure they have adequate and safe drinking water; 3) Provide, clean and user-friendly ablution facilities 4) Employ a cleaner or rotate cleaning responsibilities amongst workers to ensure hygiene; 5) Inspect ablution facilities regularly for cleanliness; 6) No littering or any waste disposal on site (tissues, plastic etc). 7) Provide a temporary toilet to prevent open defecation, which may lead to toilet papers flying

<p>Protection of archaeological and cultural site, if any</p>	<p>Proposed measures for protection of archaeological sites and cultural heritage of the project-affected area</p>
	<p>The potential archaeological, cultural or aesthetical impacts are negligible. However “a chance find must be adopted to ensure compliance to the constitutional requirement;</p> <ol style="list-style-type: none"> 1) Workers must be trained on the possible find-chance of archaeological material in the area 2) Establish a “Chance Find Procedure” where if any archaeological finding (Heritage (rock painting and drawings), human remains or artefacts) is encountered; <ol style="list-style-type: none"> a) The activity must be stopped immediately and the operation manager of that activity be informed; b) The manager must ensure the cordoning off the area with a danger tape and take appropriate records and pictures 3) Heritage remains or artefacts discovered on site must be reported to the National Museum (+264 61 276800) or the National Forensic Laboratory (+264 61 240461). 4) No artefacts must be removed or be interfered with prior to authorisation from the Namibian National Heritage Council (NHC) 5) Recovery of heritage remains or artefacts discovered and removal thereof should be directed by the National Museum
<p>Waste management (i.e. general, mine and hazardous wastes</p>	<p>Proposed measures for waste minimization and disposal</p>
	<p>The potential risk of waste could be from leakages of fuel, oil and lubricants from the machinery and vehicles. Further plastic used by workers may pollute the environment if it is not well disposed.</p> <p>Fuel, Oil and Lubricants Leakages</p> <ol style="list-style-type: none"> 1) There must be an immediate spill response kit on site. Employess should be trained on dangers oil pollutions and response actions; 2) If an oil spill occurs, collect the contaminated soil, store in drums or appropriate structures and dispose at approved waste disposal site; 3) Ensure all vehicle are well service and leak inspection are done; 4) Provide drip trays to stationary vehicle; 5) No servicing of vehicle must be done on site; 6) Re-fuelling on site must be avoided and if it does take place, it should done on bunded platform. <p>Domestic Waste</p> <ol style="list-style-type: none"> 1) No waste should be disposed on site 2) Adopt the principle of whatever goes in, should come out
<p>Amenities to workers</p>	<p>Details amenities proposed</p>
	<p>The sand mining borrow pit site does not have any bulk services and it is not necessary to provide such services to the site. However, the following amenities are recommended</p> <ol style="list-style-type: none"> 1) Provision of a temporal toilets 2) Waste collection 3) Shaded place for resting, especially during lunch

EMP MONITORING, SITE CLOSURE AND DECOMMISSIONING	
EMP implementation records and reporting (attach record sheet)	Attached
Financial provisions for rehabilitation, site closure and decommissioning	The Oranjemund Town Council should budget for the rehabilitation of the burrow pit in accordance with the recommended rehabilitation measures (contained in the EMP)
Compensation measure and guidelines (with reference to relevant governing laws)	The borrow pit is located within the Oranjemund town lands. The site is an open area (no buildings and no vegetation, no water courses, no residential and no human displacement of any sort is anticipated as a result of the sand mining activities, and there is no damage to property.

PART 6: OBLIGATIONS AND COMPLIANCE

The proponent recognises that its sand mining operations may have significant impacts on the environment. Accordingly the proponent undertakes that during the course of its operations it will take every practicable step necessary to ensure the mitigation of such impacts. In doing so it will comply with the obligations identified in the EMP and approved by the Ministry of Environment and Tourism represented by the Environmental Commissioner.

SIGNED AT _____ on this _____ day of _____ 20_____

For the proponent: _____
(duly authorized thereto)

For the Government of Namibia: _____
Mr. T. Mufeti
Environmental Commissioner
Ministry of Environment, Forestry and Tourism

