



REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: +264 61 284 2111  
Fax: +264 61 229 936

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
Omapalala 17° 54.817' S, 16° 04.870' E	Oshikoto	Oniipa

Affix  
Revenue  
stamps here


Environmental Management Act, 2007 (Section 32)

PART 1 A: DETAILS OF APPLICANT

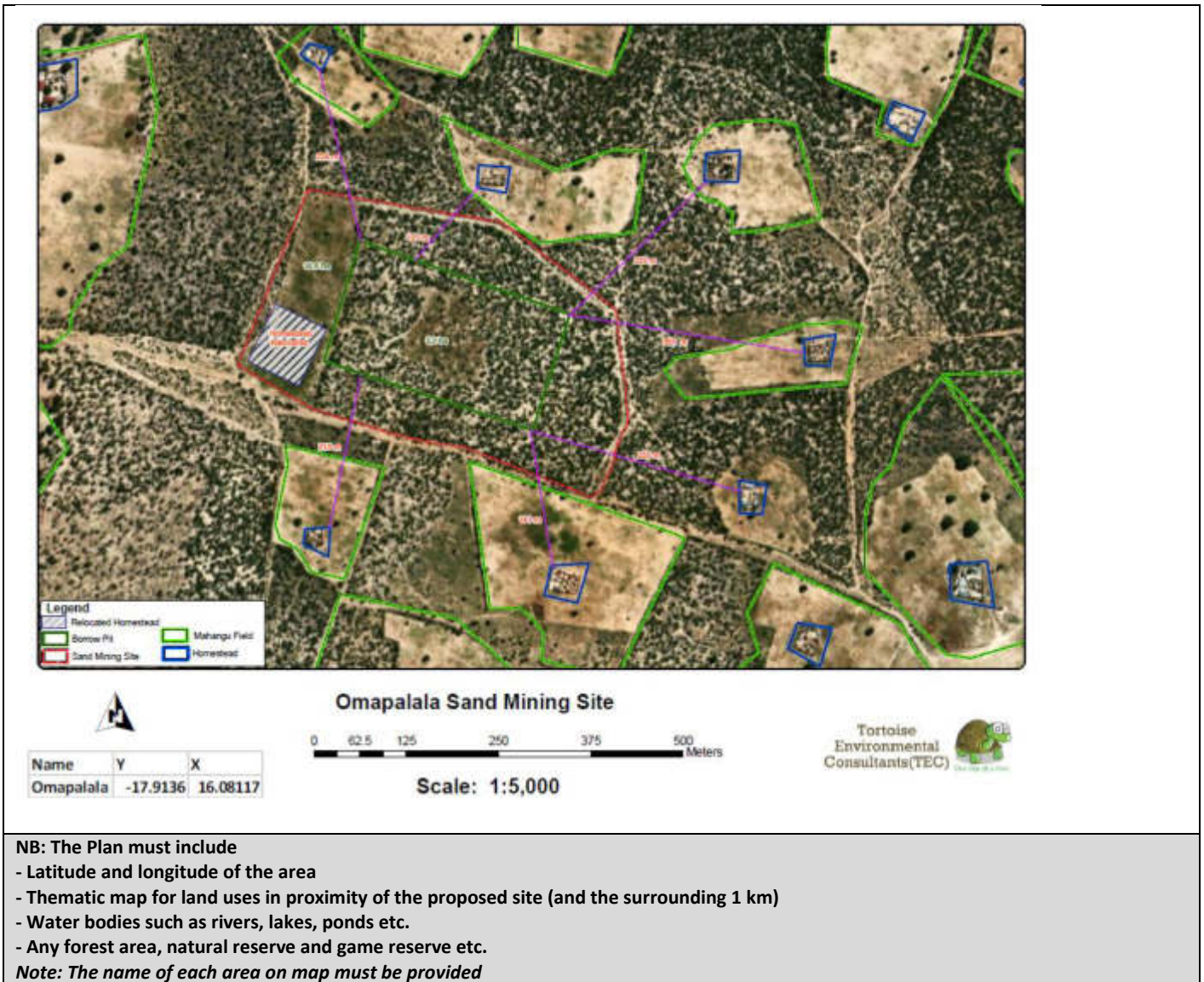
- 1. Name (person or business): Ondonga Traditional Authority
- 2. Business registration/ identity no. N/A
- 3. Correspondence address: P.O.BOX 70, Ondangwa, NAMIBIA
- 4. Name of contact person: Mr Kenneth Onno Nangolo
- 5. Position of contact person: Headman / Traditional Councillor
- 6. Telephone or cell phone number: 081 128 3935 / 081 124 9516
- 7. Fax number: \_\_\_\_\_
- 8. Email address: n/a

**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.

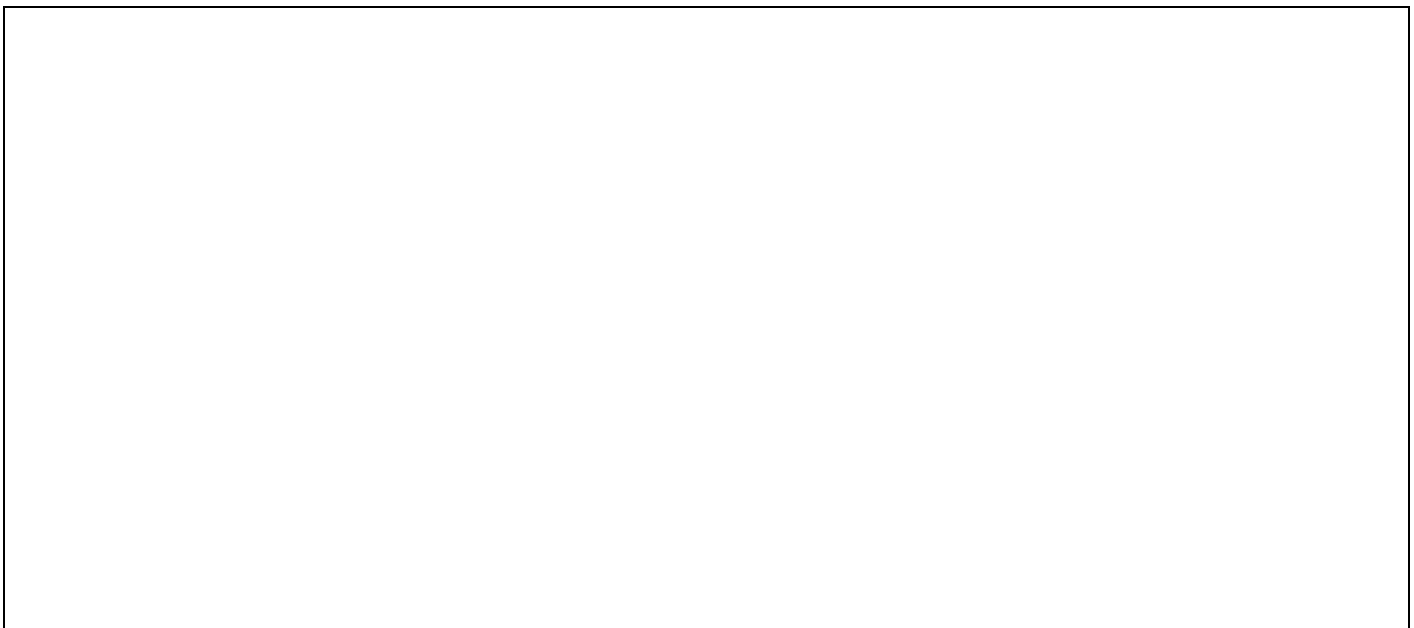
I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand that the environmental clearance certificate may be suspended, amended or cancelled if any information given above is false, misleading, wrong and incomplete.

Kenneth Onno Nangolo		Kenneth Onno Nangolo	Traditional Councillor
<u>Electronically signed</u> Signature of applicant		Full name in block letters	Position
on behalf of	<u>Ondonga Traditional Authority</u>		<u>07/12/21</u> Date

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



**PART 1 C: DRAW PLAN OF THE ALTERNATIVE SITE AND 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 2 A: CONSENT BY VILLAGE HEADMAN / WOMAN OR TRADITIONAL AUTHORITY OR PRIVATE FREEHOLDER**

**For Village Headman**

1. Name of TA headman/freeholder: Mr. Indongo Simon
2. Postal address: P.O.BOX 70, Ondangwa, NAMIBIA
3. Telephone or Mobile no.: 081 304 2495
4. Email address (if applicable): \_\_\_\_\_

**Comment and recommendation by the Village Headman / Freeholder**

\_\_\_\_\_  
\_\_\_\_\_

Stamp and signature of representative: [Electronically signed](#) Date: 02/12/21

**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: Mrs. Christella W. Mwenyo
2. Postal address: P.O Box 19247 Omutiya
3. Telephone or Mobile no: 065 244 800
4. Email address (if applicable): [cro@oshikotorc.gov.na](mailto:cro@oshikotorc.gov.na)

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

Stamp and signature of representative: Electronically signed Date: 08/12/21

### EXECUTIVE SUMMARY:

Activities such as sand mining are the building blocks of development and all infrastructural developments require sand (e.g roads, houses, schools, clinics etc), and create a lot of employment opportunities in the process, and thereby contributing to Socio-economic development. However, such developmental activities should be conducted in a thoughtful and forward looking manner. In other words, sand mining should consider the environmental protection, social safety and overall community.

**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:	Omapalala Sand Mining Site
Size of the site (hectares):	Total recommended: <b>6 ha</b> : Already mined: <b>0.5 ha</b>
Tenure of operation (years):	3 years
Expected cost of the project:	N\$ 50 000 / 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 the Omapalala village, far away from floodplain		

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 <sup>3</sup>	
100 – 500 m <sup>3</sup>	
500 – 1000 m <sup>3</sup>	
>1,000 m <sup>3</sup>	✓

#### 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: Mahangu fields			> 100m

**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 Homestead and Mahangu field on the Western Side will be relocated even though it is more than 100 m from the mining site, hence the site does not pose any threat to any installation. A public complain register shall be kept to monitor public dissatisfaction.

(b) **Land use pattern of site lease**

Land type	Area (hectare)
- Private land	
- Government land	
- Other (specify) Communal ✓	<u>6 ha</u>
- Total	<u>6ha</u>

(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.

**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.

N/a

(c) Attach a No Objection Certificate from the concerned authority with the application (N/A)



(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): **3m**; does it intersect with ground water table? **No**

(d) Top soil generation (m<sup>3</sup>): **None: The top soil is also utilized and reserved for backfilling**

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

Proposed measures for top-soil conservation and management

N/A
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(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
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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
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**8. Resource requirement:**

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

By Tipper / Dumper Truck
--------------------------

If dumper / trucks is used, Expected number of dumpers

ten (10)
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List the equipment to be used during mining operation.

Excavator and a Dumper Truck
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(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 (m<sup>3</sup> / day)

(d) **Employment:**

- Total employment potential from proposed mine: 5

- 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 ensure zero spillage. Servicing of machinery shall NOT take place at the site.**

**9. Road construction:**

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

The site is approximately 4 km North of Oniipa town, accessible from the B3622 road (Onethindi – Oshigambo road). However, the site is located is a further 2 km off the B3622 road via a track road, with very low traffic flow, hence posing no congestion to the mining site machineries and general other vehicles.

(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**

<b>Conservation of flora (including cultivated crop fields, riverine ecosystems and River flow Regime)</b>	<p><b>Proposed mitigation measures for conservation of flora</b></p> <p>This is an existing sand mining site. There are few shrubs surrounding the mining site with herbs and grass cover during the rainfall season. No trees shall be removed during the mining activities.</p>
<b>Conservation of fauna (including wildlife and livestock)</b>	<p><b>Proposed mitigation measure for conservation of fauna</b></p> <p>Omapalala is a predominantly rural village setting, with inhabitants still practicing subsistence farming. With livestock persistently frequenting the village and the proposed mining site, the following is recommended;</p> <ol style="list-style-type: none"> <li>1. Fence off the Sand Mining site to keep animals out</li> </ol>
<b>Rehabilitation of mined site (including borrow pits, tracks and roads)</b>	<p><b>Proposed measure for rehabilitation and resettlement</b></p> <p>In principle, an open pit poses safety and environmental risk. People and animals may fall into the pit, particularly at night, or drown when the pit is filled with water. It is therefore recommended that the rehabilitation plan must encompass the following;</p> <ol style="list-style-type: none"> <li>1) Fencing <ul style="list-style-type: none"> <li>• To ensure safety (for both people and animals), the mining area and all existing pits that are not fully rehabilitated should be fenced off,</li> </ul> </li> <li>2) Staff training and awareness <ul style="list-style-type: none"> <li>• Staff must be trained and made aware of the rehabilitation measures and their specific roles during implementation.</li> </ul> </li> <li>3) Site Clean up <ul style="list-style-type: none"> <li>• 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.</li> </ul> </li> <li>4) Trimming and Smoothing of the pit <ul style="list-style-type: none"> <li>• 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, and shall be converted into an earthdam to capture water during the rainy season for livestock watering.</li> <li>• To prevent formation of gullies, deliberate cut-off drains should be designed to guide storm water into the pit.</li> <li>•</li> </ul> </li> </ol>

	5) Top Soil / Overburden <ul style="list-style-type: none"> <li>This soil contains seeds and it is fertile for re-vegetation. Therefore, the topsoil should be used for smoothening of sharp angles and re-filling to allow re-vegetation.</li> </ul>
	6) Compaction of disturbed surrounding <ul style="list-style-type: none"> <li>The compacted soil must be shallowly ripped to stimulate regrowth of vegetation.</li> </ul>
	7) Access roads <ul style="list-style-type: none"> <li>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.</li> </ul>
	8) Safety <ul style="list-style-type: none"> <li>Since substantial quantities of sand material would be removed, even after rehabilitation, the pit would not be completely covered and the ponding effect would still pose a risk of drowning, particularly during the rainy season. Hence, due diligence should be applied, to ensure safety, before the removal of the fence</li> <li>After the pit is rehabilitated and converted into an earthdam, livestock should be kept off the earthdam by providing drinking troughs outside the fence.</li> </ul>

**ENVIRONMENT PROTECTION**

	<b>Proposed mitigation measures for air pollution / dust control</b>
	<p>Air pollution is mainly to be expected for dust, hence to ensure public health and safety (from poor visibility), the following mitigation measures must be implemented.</p> <ol style="list-style-type: none"> <li>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;</li> <li>2) Avoid working during extreme windy conditions;</li> <li>3) Provide dust masks and ear muffs to all employees operating in a dusty or noisy environment;</li> <li>4) Reduce vehicle speed on sand roads;</li> <li>5) All vehicles transporting sand or sand should be covered with a tarpaulin, or any other suitable material, and;</li> <li>6) Industrial speed limits of 40km on sand road must be maintained.</li> </ol>
<b>Air pollution</b>	
	<b>Proposed mitigation measures for water-pollution control and prevention and for conservation of water resources</b>
	<p>Omapalala is situated within the Cuvelai-Etосha Basin. The water table within the basin is generally found beyond the 10 m depth, presenting a reduced risk for water contamination. However, precautions need to be taken in regards to any potential groundwater contamination from the sand mining operations. Therefore, incidents of fuel, oil and lubricants</p>
<b>Protection of water resources</b>	

	<p>leakages should be monitored closely. Therefore, the proponent must ensure that;</p> <ol style="list-style-type: none"> <li>1) There must be an immediate spill response kit on site. Workers should be properly trained on dangers oil pollutions and response actions;</li> <li>2) If an oil spill occurs, collect the contaminated soil, store in drums or appropriate structures and dispose at approved waste disposal site;</li> <li>3) Ensure all vehicle are well service and leak inspection are done;</li> <li>4) Provide drip trays to stationary vehicle;</li> <li>5) No servicing of vehicle must be done on site;</li> <li>6) Re-fuelling must be done on bunded on site.</li> </ol>
<b>Noise</b>	<b>Proposed mitigation measures for noise</b>
	<p>The mining site is in close proximity to homesteads, and hence, there is a noise pollution threat to the residents. The employees (machinery operators) will also be exposed excessive noise. To mitigate noise pollution, the following mitigation measure should be taken into consideration.</p> <ol style="list-style-type: none"> <li>1) Only work during normal working hours (07h00 -17h00), do not work during the night;</li> <li>2) Provide employees with earmuffs;</li> <li>3) When not in use, vehicle engines must be switched off;</li> <li>4) Vehicles and machines must be well serviced to avoid unnecessary noise emission;</li> </ol>

<b>ENVIRONMENT PROTECTION Continues.</b>	
<b>Health and safety of workers</b>	<b>Proposed measures for safety and health</b>
	<p><b>General Safety at work place;</b></p> <ol style="list-style-type: none"> <li>1) Develop a Health and Safety Plan (should be part of the induction)</li> <li>2) Ensure that all employees go through an induction session safety for their own safety, other employees and the general public;</li> <li>3) Employees must be equipped with all necessary Personal Protective Equipment (PPE). These includes: Helmet, Safety Shoes, Safety Glasses, Earmuff etc;</li> <li>4) During operation, minor accidents are eminent, hence there must be a first aid kit on site (in each vehicle);</li> <li>5) Only qualified and licenced personnel must be allowed to operate machinery and vehicles;</li> <li>6) No employee must be allowed to be onsite without PPE;</li> <li>7) Adequate safety warning signs must be displayed on site.</li> </ol>

	<p><b>Health;</b></p> <ol style="list-style-type: none"> <li>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;</li> <li>2) It is the responsibility of employees to ensure they have adequate and safe drinking water;</li> <li>3) Provide, clean and user-friendly ablution facilities</li> <li>4) Employ a cleaner or rotate cleaning responsibilities amongst workers to ensure hygiene;</li> <li>5) Inspect ablution facilities regularly for cleanliness;</li> <li>6) No littering or any waste disposal on site (tissues, plastic etc).</li> <li>7) Provide a temporary toilet to prevent open defecation, which may lead to toilet papers flying into nearby homesteads or all over the place</li> </ol>
<p><b>Protection of archaeological and cultural site, if any</b></p>	<p><b>Proposed measures for protection of archaeological sites and cultural heritage of the project-affected area</b></p>
	<p>The potential archaeological, cultural or aesthetical impacts are negligible. However, “a chance find must be implemented to ensure compliance to the constitutional requirement;</p> <ol style="list-style-type: none"> <li>1) Workers must be trained on the possible find-chance of archaeological material in the area</li> <li>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"> <li>a) The activity must be stopped immediately and the operation manager of that activity be informed;</li> <li>b) The manager must ensure the cordoning off the area with a danger tape and take appropriate records and pictures</li> </ol> </li> <li>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).</li> <li>4) No artefacts must be removed or be interfered with prior to authorisation from the Namibian National Heritage Council (NHC)</li> <li>5) Recovery of heritage remains or artefacts discovered and removal thereof should be directed by the National Museum</li> </ol>
<p><b>Waste management (i.e. general, mine and hazardous wastes</b></p>	<p><b>Proposed measures for waste minimization and disposal</b></p>
	<p>Waste generation for the extraction of calcrete is mainly expected 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><b>Fuel, Oil and Lubricants Leakages</b></p> <ol style="list-style-type: none"> <li>1) There must be an immediate spill response kit on site. Workers should be trained on dangers oil pollutions and response actions;</li> </ol>

	<ol style="list-style-type: none"> <li>2) If an oil spill occurs, collect the contaminated soil, store in drums or appropriate structures and dispose at approved waste disposal site;</li> <li>3) Ensure all vehicle are well service and leak inspection are done;</li> <li>4) Provide drip trays to stationary vehicle;</li> <li>5) No servicing of vehicle must be done on site;</li> <li>6) Re-fuelling on site must be avoided and if it does take place, it should be done on bunded platform.</li> </ol> <p><b>Domestic Waste</b></p> <ol style="list-style-type: none"> <li>1) No waste disposal on site (everything that goes in, should come out</li> </ol>
<b>Amenities to workers</b>	<b>Details amenities proposed</b>
	<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"> <li>1) Provision of a two temporal toilets</li> <li>2) Dust bins</li> <li>3) Shaded place for resting, especially during lunch</li> </ol>

<b>EMP MONITORING, SITE CLOSURE AND DECOMMISSIONING</b>	
EMP implementation records and reporting (attach record sheet)	Attached
Financial provisions for rehabilitation, site closure and decommissioning	Ondonga Traditional Authority shall 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)	Even though the proposed sand mining site is situated on a vacant piece of land, however one household displacement is anticipated against compensation even though is beyond 100 m from the mining site.

## **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 authorised thereto)

For the Government of Namibia: \_\_\_\_\_  
Mr. T. Nghitila  
Environmental Commissioner  
Ministry of Environment and Tourism