# ENVIRONMENTAL MANAGEMENT PLAN:

## For the Sand and Aggregate Quarrying at Ondeihaluka Village, Ohangwena Region, Namibia

| | |
|---|---|
| **APP Reference** | 006514 |
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| | |

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# List of Abbreviations

| | |
|---|---|
| **ECO** | Environmental Control Officer |
| **ECC** | Environmental Clearance Certificate |
| **EIA** | Environmental Impact Assessment |
| **EMA** | Environmental Management Act |
| **EMP** | Environmental Management Plan |
| **ESA** | Environmental Scoping Assessment |
| **I&APs** | Interested and Affected Parties |
| **MEFT** | Ministry of Environment, Forestry and Tourism |
| **DEAF** | Department of Environmental Affairs and Forestry |
| **PPE** | Personal Protective Equipment |
| **NHC** | National Heritage Council of Namibia |

# 1. Introduction and Background

## 1.1 Purpose of this EMP

This Environmental Management Plan (EMP) has been prepared by Malta Environmental Consulting Solutions cc on behalf of the Oukwanyama Traditional Authority (the Proponent) for the proposed sand and aggregate quarrying operation at the Ondeihaluka village, Endola Constituency in Ohangwena Region, Namibia, as shown in Figure 1. This EMP accompanies the Environmental Scoping Assessment (ESA) Report submitted in support of the Environmental Clearance Certificate (ECC) application to the Department of Environmental Affairs and Forestry (DEAF) at the Ministry of Environment, Forestry and Tourism (MEFT).

The EMP sets out the specific management actions, responsibilities, monitoring requirements, and reporting protocols required to avoid, minimise, and mitigate the potential adverse environmental and socio-economic impacts identified in the ESA. It constitutes a legally binding commitment by the Proponent to implement all prescribed measures throughout the full lifecycle of the project including pre-commencement, operational, and decommissioning phases.

**Figure 1:Locality Map**

## 1.2 Project Overview

**Table 1: Project Overview**

| | |
|---|---|
| **Project Location** | Ondeihaluka village, Endola Constituency, Ohangwena Region, Namibia |
| **Project Type** | Sand and Aggregate Quarrying activities |
| **Proponent** | OukwanyamaTraditional Authority |
| **Regulatory Activity** | Activity 3.2 and 3.3 under EIA Regulations GN No. 30 of 2012 |
| **Extraction Limit** | Topsoil to underlying clay substrate; operations cease at clay depth |
| **Equipment** | Front-end loader, tipper trucks |
| **Workforce** | 5–10 on-site personnel |
| **Operating Hours** | 07:00–17:00 weekdays (Monday to Friday) |
| **Access** | Single designated access road |

## 1.3 Regulatory Basis

This EMP has been prepared in accordance with the following legislation and regulations:

- Environmental Management Act No. 7 of 2007, Section 27 and EIA Regulations GN No. 30 of 2012, Section 8(j)
- Constitution of the Republic of Namibia, 1990 — Articles 91(c) and 95(l)
- Water Act No. 54 of 1956 and Water Resources Management Act No. 11 of 2013
- Soil Conservation Act No. 76 of 1969
- National Heritage Act No. 27 of 2004 and National Monuments Act No. 28 of 1969
- Public Health Act No. 36 of 1919 and Health and Safety Regulations GN 156/1997
- Road Traffic and Transport Act No. 22 of 1999
- Labour Act No. 6 of 1992

# 2. Roles and Responsibilities

Effective implementation of this EMP requires clearly defined accountability. The responsibilities of each party are set out below.

**Table 2: Roles and Responsibilities**

| Role / Party | Responsibilities |
|---|---|
| **Proponent (Oukwanyama Traditional Authority)** | Overall accountability for EMP compliance. Provide adequate resources. Appoint a qualified ECO. Cooperate with DEAF inspections. Report on ECC conditions. Ensure decommissioning obligations are met. |
| **Environmental Control Officer (ECO)** | Day-to-day oversight of EMP compliance. Conduct site inspections and environmental monitoring. Record and report non-conformances. Maintain the environmental register. Liaise with DEAF and relevant authorities. Advise Proponent on corrective actions. |
| **Site Manager / Foreman** | Implement operational mitigation measures. Enforce safety and environmental rules on-site. Ensure all personnel complete induction. Report incidents and non-conformances to the ECO immediately. |
| **All On-Site Personnel** | Comply with all EMP requirements, safety rules, and site procedures. Report any environmental incidents, spills, or chance finds immediately. Use appropriate PPE at all times. |
| **Department of Environmental Affairs & Forestry (DEAF)** | Grant and administer the ECC. Review compliance reports. Conduct compliance inspections. Issue directives for corrective action where required. |
| **National Heritage Council of Namibia (NHC)** | Advise on heritage matters. Assess and manage any chance finds. Issue permits under the National Heritage Act as required. |

# 3. Summary of Impact Significance

All impacts were assessed using the formula: Significance = (Intensity + Duration + Extent) x Probability. The table below summarizes all assessed impacts and their significance scores before and after the implementation of the mitigation measures prescribed in Section 4. All impacts are expected to be reduced to Low significance with consistent application of the prescribed measures.

**Table 3: Summary of Impact Significance**

| Impact Aspect | Extent | Duration | Intensity | Prob. | Pre-Mitigation Score | Post-Mitigation Score | Status |
|---|---|---|---|---|---|---|---|
| Soil & Water Pollution | M–3 | L/M–2 | M–6 | M/H–4 | 44 | 12 | ACCEPTABLE |
| Air Quality (Dust) | L/M–2 | L/M–2 | M–6 | M–3 | 30 | 10 | ACCEPTABLE |
| Biodiversity | L/M–2 | L/M–2 | M–6 | M–3 | 30 | 10 | ACCEPTABLE |
| Health & Safety | M–3 | L/M–2 | M–6 | M/H–4 | 44 | 12 | ACCEPTABLE |
| Vehicular Traffic | L/M–2 | L/M–2 | M–6 | M–3 | 30 | 12 | ACCEPTABLE |
| Visual Impact | M–3 | M–3 | M–6 | M–3 | 36 | 16 | ACCEPTABLE |
| Noise | L/M–2 | L/M–2 | M–6 | M–3 | 30 | 10 | ACCEPTABLE |
| Waste Generation | M–3 | M/H–4 | M–6 | M–3 | 39 | 8 | ACCEPTABLE |
| Archaeological & Cultural Heritage | M–3 | M–3 | M–6 | M–3 | 36 | 16 | ACCEPTABLE |

| Score | Significance Level |
|---|---|
| ≤ 20 | LOW (acceptable — monitor) |
| 21–44 | MEDIUM (mitigation required) |
| > 44 | HIGH (mitigation mandatory; target LOW or MEDIUM) |

# 4. Environmental Management Measures

This section details the binding management and mitigation measures for each identified impact. All measures must be implemented throughout the relevant project phase.

## 4.1 Soil and Water Pollution

**Table 4: Soil and Water Pollution**

| | |
|---|---|
| **Project Phase** | Pre-Commencement, Operational, Decommissioning |
| **Management Objective** | Prevent contamination of soils and groundwater from fuel, lubricant, and hazardous waste spills. |
| **Required Mitigation Measures** | • Maintain a fully stocked on-site spill kit (absorbent materials, containment boom, neutralizing agents) and a documented emergency spill response procedure at all times.<br>• Store all fuel and oil in approved, bunded containers located at least 50 m from any drainage feature, oshana, or borehole.<br>• Conduct weekly inspection and maintenance of all vehicles and machinery to detect and repair leaks before resuming operations.<br>• Refuel all vehicles and equipment on an impermeable, bunded surface with secondary containment; never refuel near drainage features.<br>• Dispose of all used oil, lubricants, and contaminated materials at an approved hazardous waste facility in the nearest town; retain disposal manifests on file.<br>• Prohibit washing of vehicles or equipment using detergents at the borrow pit site.<br>• Train all personnel in spill prevention, immediate containment, and clean-up procedures during induction. |
| **Monitoring Indicators** | No soil discoloration or oil sheen in drainage features; spill kit inspection records current; disposal certificates on file. |
| **Responsibility** | ECO (monthly inspection); Site Manager (daily checks); all personnel (incident reporting) |
| **Monitoring Frequency** | Weekly vehicle and equipment check; monthly ECO audit of storage areas and hazardous waste records. |
| **Reporting** | Non-conformances in environmental register; quarterly compliance report to Proponent and DEAF. |

## 4.2 Air Quality and Dust Management

**Table 5: Air Quality and Dust Management**

| | |
|---|---|
| **Project Phase** | Operational |
| **Management Objective** | Minimise dust generation to protect worker and community health and maintain air quality beyond the site boundary. |
| **Required Mitigation Measures** | • Wet all unpaved haul roads and the active mining face during dry and windy conditions — minimum twice daily in the dry season (May to October); frequency determined by ECO.<br>• Cover all loaded tipper trucks with tarpaulins or secure nets before leaving the site.<br>• Enforce a maximum vehicle speed of 20 km/h on all unpaved surfaces within and adjacent to the borrow pit.<br>• Provide all on-site personnel with SABS-approved particulate dust masks (minimum FFP2 rating) and enforce use during all extraction, loading, and dry-condition activities.<br>• Cease or suspend mining activities during periods of wind speed exceeding 40 km/h where practicable.<br>• Maintain existing vegetation buffers around the perimeter where possible to provide natural dust screening. |
| **Monitoring Indicators** | No visible dust plume beyond the site fence; 100% PPE compliance; road wetting logs maintained; no unresolved community dust complaints. |
| **Responsibility** | ECO (monitoring); Site Manager (daily operations); all personnel (PPE compliance) |
| **Monitoring Frequency** | Daily visual dust check during dry season; monthly PPE audit. |
| **Reporting** | Dust complaints log maintained on-site; monthly ECO report; quarterly compliance report. |

## 4.3 Biodiversity: Fauna and Flora

**Table 6: Biodiversity: Fauna and Flora**

| | |
|---|---|
| **Project Phase** | Pre-Commencement, Operational, Decommissioning |
| **Management Objective** | Minimise disturbance to indigenous vegetation and fauna; ensure progressive rehabilitation of all disturbed areas. |
| **Required Mitigation Measures** | • Restrict all vegetation clearing strictly to the approved active mining footprint; no clearing beyond the designated boundary under any circumstances.<br>• Conduct a pre-clearing survey to identify and, where practicable, relocate fauna before operations commence. |

| | |
|---|---|
| | • Prohibit removal or cutting of trees or shrubs outside the approved operational area — any breach constitutes a serious non-conformance.<br>• Progressively rehabilitate mined sections by replacing stockpiled topsoil and re-seeding or replanting with locally indigenous species as extraction moves to new areas.<br>• Monitor rehabilitated areas every six months for invasive alien plant establishment; implement manual removal immediately upon detection.<br>• Prohibit hunting, trapping, collection of plants, or any disturbance to wildlife by on-site personnel. |
| **Monitoring Indicators** | Area cleared does not exceed approved footprint; rehabilitation plan current and being implemented; no unmanaged invasive alien plants in rehabilitated areas; no wildlife disturbance incidents. |
| **Responsibility** | ECO (quarterly inspection and certification); Site Manager (operational compliance) |
| **Monitoring Frequency** | Quarterly biodiversity and rehabilitation inspection; six-monthly invasive alien plant survey. |
| **Reporting** | Rehabilitation progress with photographic evidence in quarterly compliance report. |

## 4.4 Health and Safety

**Table 7: Health and Safety**

| | |
|---|---|
| **Project Phase** | Pre-Commencement, Operational, Decommissioning |
| **Management Objective** | Protect the health and safety of all on-site workers and the surrounding community, with specific measures for child safety. |
| **Required Mitigation Measures** | • PRIORITY — Erect a suitable perimeter fence around the entire borrow pit before any sand extraction begins; maintain the fence in good repair throughout the operational phase.<br>• Erect clear, bilingual (English and Oshiwambo) safety signage at all entry points and at intervals along the fence, warning of the excavation hazard and prohibiting unauthorised entry.<br>• Provide all personnel with SABS-approved PPE: hard hats, high-visibility vests, steel-capped safety boots, gloves, dust masks, and hearing protection where required.<br>• Maintain a minimum of two fully stocked first aid kits on-site at all times; designate and train at least two personnel as first aiders.<br>• Conduct a mandatory safety and environmental induction for all workers before they commence any on-site activity.<br>• Implement and strictly enforce a zero-tolerance no-alcohol and no-drugs policy on-site.<br>• Conduct a daily toolbox talk before work commences, covering the day's activities, associated hazards, and required controls.<br>• Report all injuries, near-misses, and incidents to the ECO within 4 hours; serious incidents must be reported to DEAF within 24 hours. |

| | |
|---|---|
| **Monitoring Indicators** | Perimeter fence complete and intact prior to commencement; 100% PPE compliance; no unresolved safety incidents; first aid records current; zero alcohol incidents. |
| **Responsibility** | ECO (inspection and reporting); Site Manager (daily enforcement) |
| **Monitoring Frequency** | Daily PPE and safety check by Site Manager; weekly safety audit by ECO. |
| **Reporting** | Incident register on-site; serious incidents reported immediately; monthly safety report. |

## 4.5 Vehicular Traffic and Road Safety

**Table 8: Vehicular Traffic and Road Safety**

| | |
|---|---|
| **Project Phase** | Operational |
| **Management Objective** | Minimise road deterioration and traffic safety risks from heavy vehicle haulage operations. |
| **Required Mitigation Measures** | • Limit heavy vehicle movements to designated hours: 07:00–17:00, Monday to Saturday; no heavy vehicles outside these hours without prior written ECO approval.<br>• Ensure all vehicles are roadworthy, validly licensed, and operated only by persons holding the appropriate driver's licence category.<br>• Enforce a maximum speed of 30 km/h on public roads adjacent to the site and 20 km/h within the site boundary.<br>• Erect clearly visible traffic warning and speed restriction signs on the access road and at the site entrance.<br>• Obtain all required road transport permits from the Road Traffic Inspectorate before commencing haulage.<br>• Inspect the designated access road monthly; arrange prompt repair of any damage attributable to project vehicles. |
| **Monitoring Indicators** | No traffic incidents or road authority complaints; all vehicles roadworthy and licensed; speed limits observed; monthly road inspection completed. |
| **Responsibility** | ECO (compliance oversight); Site Manager (daily traffic management) |
| **Monitoring Frequency** | Monthly road inspection; vehicle licence check at induction and six-monthly thereafter. |
| **Reporting** | Traffic incident log maintained; monthly ECO compliance report. |

## 4.6 Visual Impact

**Table 9: Visual Impact**

| | |
|---|---|
| **Project Phase** | Operational, Decommissioning |
| **Management Objective** | Minimise the visual intrusion of the borrow pit on the surrounding landscape and community. |
| **Required Mitigation Measures** | • Maintain the site in a clean and orderly condition at all times: no litter, excess stockpiles, abandoned equipment, or unsightly waste.<br>• Screen the perimeter fence with fast-growing, locally indigenous vegetation where practicable and site conditions allow establishment. |

| | |
|---|---|
| | • Progressively rehabilitate mined sections to restore the natural ground surface using stockpiled topsoil and indigenous plant material.<br>• Keep sand and topsoil stockpiles compact and neatly shaped to minimise their visual footprint.<br>• Remove all infrastructure, equipment, and stockpiles from the site upon decommissioning; restore the site to a condition acceptable to the ECO and DEAF. |
| **Monitoring Indicators** | Site inspection confirms orderly condition; progressive rehabilitation evident in mined-out sections; no unresolved visual complaints from community. |
| **Responsibility** | ECO (quarterly inspection); Site Manager (daily housekeeping) |
| **Monitoring Frequency** | Quarterly site tidiness and rehabilitation inspection with photographic record. |
| **Reporting** | Visual amenity progress included in quarterly compliance report. |

## 4.7 Noise

**Table 10: Noise**

| | |
|---|---|
| **Project Phase** | Operational |
| **Management Objective** | Control noise from mining operations to protect worker hearing and minimise disturbance to nearby residents. |
| **Required Mitigation Measures** | • Restrict all mining operations and heavy machinery to approved hours: 07:00–17:00, Monday to Saturday; no operations outside these hours without prior ECO written approval.<br>• Provide all personnel working within 10 m of machinery with SABS-approved hearing protection (earplugs or earmuffs, minimum SNR 25 dB) and enforce use at all times.<br>• Maintain all machinery and vehicles in good mechanical condition to minimise noise from defective mufflers, loose parts, or worn components.<br>• Avoid stationary idling of heavy machinery for more than 5 minutes when not in productive use.<br>• Position the noisiest operations (excavation, loading) as far as practicable from the nearest residential structures. |
| **Monitoring Indicators** | No operations outside approved hours; 100% hearing PPE compliance near machinery; no unresolved noise complaints; maintenance records current. |
| **Responsibility** | ECO (inspection); Site Manager (daily enforcement) |
| **Monitoring Frequency** | Monthly noise compliance inspection and hearing PPE audit. |
| **Reporting** | Noise complaints log on-site; monthly ECO report; quarterly compliance report. |

## 4.8 Waste Management

**Table 11: Waste Management**

| | |
|---|---|
| **Project Phase** | Operational, Decommissioning |
| **Management Objective** | Ensure all waste is minimized, correctly classified, stored, and disposed of in accordance with applicable legislation. |

| | |
|---|---|
| **Required Mitigation Measures** | • Provide clearly labelled, colour-coded waste containers at all operational areas: general waste (black), recyclables (yellow), hazardous waste (red).<br>• Remove solid waste to the nearest approved municipal waste disposal facility at a minimum of once per week; no waste to be buried, burned, or left on-site.<br>• Store hazardous waste (used oil, lubricants, contaminated materials) in sealed, UN-approved containers within a designated bunded storage area.<br>• Dispose of hazardous waste at an approved facility; retain all disposal manifests and certificates on file for inspection.<br>• Strictly prohibit burning of any waste on-site.<br>• Conduct a weekly waste audit to verify quantities, correct segregation, and compliance.<br>• Ensure portable sanitation facilities are regularly serviced; no sewage to be discharged to ground or any watercourse. |
| **Monitoring Indicators** | No waste accumulation beyond designated areas; disposal records on file; no evidence of illegal burning or burial; ablution facilities serviceable. |
| **Responsibility** | ECO (monthly audit); Site Manager (daily oversight) |
| **Monitoring Frequency** | Weekly waste audit; hazardous waste records checked monthly. |
| **Reporting** | Waste disposal records filed; monthly ECO report; quarterly compliance report. |

## 4.9 Archaeological and Cultural Heritage

**Table 12: Archaeological and Cultural Heritage**

| | |
|---|---|
| **Project Phase** | Pre-Commencement, Operational |
| **Management Objective** | Prevent damage to any archaeological, cultural, or heritage resources encountered during excavation. |
| **Required Mitigation Measures** | • Formally consult with the National Heritage Council of Namibia (NHC) before commencement of operations; obtain any required permits or clearance letters and keep copies on-site.<br>• Include heritage awareness and a chance finds training module in the mandatory induction programme for all personnel.<br>• CHANCE FINDS PROCEDURE: If any archaeological material, artefact, grave, human remains, or structure of cultural significance is discovered: (a) cease all work in the affected area immediately; (b) cordon off and protect the area from disturbance; (c) notify the ECO within 2 hours; (d) notify the NHC and DEAF within 24 hours; (e) only resume work in the affected area with written authority from the relevant authority.<br>• Document and photograph all chance finds before any further disturbance.<br>• Do not remove, handle unnecessarily, or relocate any found material without explicit written NHC authority. |
| **Monitoring Indicators** | NHC consultation record on file; all personnel trained; any finds reported and managed per procedure; no instances of undisclosed discoveries. |

| | |
|---|---|
| **Responsibility** | ECO (training oversight and compliance); Site Manager (operational response) |
| **Monitoring Frequency** | Heritage training verified at induction; ECO checks compliance during monthly audits. |
| **Reporting** | NHC consultation records filed; chance finds documented and reported within required timeframes; quarterly compliance report. |

# 5. Monitoring and Reporting Framework

## 5.1 Monitoring Schedule

**Table 13: Monitoring Schedule**

| Impact Area | Monitoring Activity | Frequency | Responsible Party |
|---|---|---|---|
| **Soil & Water** | Spill kit and fuel storage inspection | Weekly | ECO |
| **Soil & Water** | Hazardous waste disposal records check | Monthly | ECO |
| **Air Quality** | Visual dust assessment and road wetting log review | Daily (dry season) | Site Manager |
| **Air Quality** | PPE dust mask compliance audit | Monthly | ECO |
| **Biodiversity** | Vegetation clearance boundary verification | Quarterly | ECO |
| **Biodiversity** | Rehabilitation progress and invasive alien plant check | Six-monthly | ECO |
| **Health & Safety** | PPE compliance and first aid kit inspection | Weekly | Site Manager |
| **Health & Safety** | Full safety audit (fence, signage, incidents) | Weekly | ECO |
| **Traffic** | Road condition inspection; vehicle license check | Monthly | ECO |
| **Visual** | Site tidiness and rehabilitation photographic record | Quarterly | ECO |
| **Noise** | Operating hours compliance and hearing PPE check | Monthly | ECO |
| **Waste** | Waste audit — segregation, quantities, disposal records | Weekly | Site Manager |
| **Heritage** | Chance finds register reviewed | Monthly | ECO |
| **General Compliance** | Full EMP compliance audit | Quarterly | ECO + Proponent |

## 5.2 Reporting Requirements

**Table 14: Reporting Requirements**

| Report Type | Frequency | Submitted To | Prepared By |
|---|---|---|---|
| Environmental Register (incidents, complaints, non-conformances) | Ongoing (on-site) | Available to DEAF on request | ECO |
| Monthly Compliance Report | Monthly | Proponent | ECO |

| | | | |
|---|---|---|---|
| Quarterly Environmental Compliance Report | Quarterly | Proponent; DEAF on request | ECO |
| Serious Incident Notification | Within 24 hours of incident | Proponent and DEAF | ECO / Site Manager |
| Decommissioning and Rehabilitation Completion Report | Upon closure | DEAF | ECO / EAP |

# 6. Non-Conformance and Incident Management

## 6.1 Non-Conformance Procedure

**Table 15: Non-Conformance Procedure**

| Step | Action | Responsibility |
|---|---|---|
| **1** | Identify and document the non-conformance in the environmental register (date, nature, location). | Any person on-site |
| **2** | Notify the ECO within 4 hours of identification. | Site Manager / any personnel |
| **3** | ECO assesses the non-conformance and assigns severity rating (minor, moderate, serious). | ECO |
| **4** | ECO instructs Site Manager to implement immediate corrective or containment measures. | ECO / Site Manager |
| **5** | Develop and document a Corrective Action Plan (CAP) with resolution timeframes. | ECO |
| **6** | Implement the CAP and verify effectiveness. | Site Manager |
| **7** | ECO closes the non-conformance once resolved and records closure in the register. | ECO |
| **8** | Serious non-conformances: notify Proponent immediately and notify DEAF within 24 hours. | ECO / Proponent |

## 6.2 Incident Management

An environmental incident is an unplanned event that results in, or has the potential to result in, an adverse effect on the environment, human health, or safety. All incidents must be reported immediately to the ECO and Site Manager. Serious incidents (including fuel spills to drainage features, injury, or discovery of heritage material) must be reported to DEAF within 24 hours. The ECO must investigate all incidents and document findings, root cause, and preventive measures in the environmental register within 5 working days.

# 7. Decommissioning and Rehabilitation

Decommissioning will occur when excavation reaches the depth of the underlying clay substrate, or when the Proponent permanently ceases operations. The following requirements are mandatory:

**Table 16: Decommissioning and Rehabilitation**

| Requirement | Detail |
|---|---|
| **Notification to DEAF** | Proponent must notify DEAF in writing at least 30 days before permanent decommissioning commences. |
| **Cessation at clay depth** | All extraction must cease immediately upon encountering the clay substrate to prevent pit wall instability. |
| **Topsoil reinstatement** | Stockpiled topsoil must be progressively spread across rehabilitated areas to restore soil profiles. |
| **Vegetation re-establishment** | Indigenous vegetation must be re-established across all disturbed areas using locally sourced seed or plant material. |
| **Removal of infrastructure** | All equipment, infrastructure, waste, fuel, and hazardous materials must be removed and disposed of appropriately. |
| **Perimeter fence** | Fence must remain in place until the rehabilitated surface is stable and the ECO certifies the site as safe for public access. |
| **ECO certification** | The ECO must inspect the rehabilitated site and issue written certification before the ECC is formally surrendered. |
| **Completion Report** | An Environmental Decommissioning and Rehabilitation Completion Report must be submitted to DEAF upon closure. |

# 8. EMP Amendments and Document Control

This EMP may be amended where required by changes to project scope, DEAF directives, monitoring findings, or new legislation. All amendments must be approved in writing by the ECO and the Proponent. Material amendments must be submitted to DEAF for review. The current version must be kept on-site at all times.

**Table 17: EMP Amendments and Document Control**

| Version | Date | Description | Approved By |
|---|---|---|---|
| 1.0 | March 2026 | Initial issue: EMP for Ondeihaluka Borrow Pit Sand and Aggregate Quarrying, Ohangwena Region | Malta Environmental Consulting Solutions cc |

## APPENDIX 1: CHANCE FINDS PROCEDURE (AFTER KINAHAN, 2020)

Areas of proposed development activity are subject to heritage survey and assessment at the planning stage. These surveys are based on surface indications alone, and it is therefore possible that sites or items of heritage significance will be found during development work. The procedure set out here covers the reporting and management of such finds.

**Scope**: The "*chance finds*" procedure covers the actions to be taken from the discovery of a heritage site or item to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

**Compliance**: The "chance finds" procedure is intended to ensure compliance with relevant provisions of the National Heritage Act (27 of 2004), especially Section 55 (4): "*a person who discovers any archaeological …. Object ……must as soon as practicable report the discovery to the Council*". The procedure of reporting set out below must be observed so that heritage remains reported to the NHC are correctly identified in the field.

Manager/Supervisor must report the finding to the following competent authorities:

- National Heritage Council of Namibia (061 244 375 / Technical Office +264 61 301 903)
- National Museum (061 276800),
- National Forensic Laboratory (061 240461).

Archaeological material must NOT be touched. Tempering with the materials is an offence under the heritage act and punishable upon conviction by the law.

**Responsibility:**

**Operator:** To exercise due caution if archaeological remains are found

**Foreman:** To secure site and advise management timeously

**Superintendent:** To determine safe working boundary and request inspection

**Archaeologist:** To inspect, identify, advice management, and recover remains

**Procedure:**

Action by person identifying archaeological or heritage material:

a) If operating machinery or equipment stop work

b) Identify the site with flag tape

c) Determine GPS position if possible

d) Report findings to foreman

Action by foreman

a) Report findings, site location and actions taken to superintendent

b) Cease any works in immediate vicinity

Action by superintendent

a) Visit site and determine whether work can proceed without damage to findings

b) Determine and mark exclusion boundary

c) Site location and details to be added to project GIS for field confirmation by archaeologist

Action by Archaeologist

a) Inspect site and confirm addition to project GIS

b) Advise NHC and request written permission to remove findings from work area

c) Recovery, packaging and labelling of findings for transfer to National Museum

In the event of discovering human remains

a) Actions as above

b) Field inspection by archaeologist to confirm that remains are human

c) Advise and liaise with NHC and Police

d) Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.