UPDATED ENVIRONMENTAL MANAGEMENT PLAN

FOR

THE ESTABLISHMENT OF MINING ACTIVITIES ON MINING CLAIMS: 75647, 76489, 76490, 76491 & 76492, OMAO VILLAGE, OPUWO DISTRICT, KUNENE REGION, NAMIBIA

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1 INTRODUCTION

1.1 Purpose of this Environmental Management Plan

This Environmental Management Plan (EMP) has been prepared for the proposed small-scale copper mining activities on Mining Claims; 75647, 76489, 76490, 76491 and 76492, located at Omao village within the Opuwo rural constituency in Kunene Region. The EMP is linked directly to the Environmental Scoping Report and should be read in conjunction with that document. While the Scoping Report provides detailed information on:

- The project description and operational scope;
- The receiving biophysical and socio-economic baseline environment;
- The applicable legal and regulatory framework;
- The public consultation process and stakeholder concerns; and
- The impact assessment methodology and significance ratings;

this EMP focuses specifically on the practical implementation of mitigation, monitoring and management measures required to manage identified impacts.

The EMP does not repeat baseline data or regulatory analysis already contained in the Scoping Report. Instead, it translates the assessed mitigation scenarios into clear operational requirements, monitoring actions and accountability structures.

1.2 Relationship to the Scoping Report

The impact assessment concluded that several biophysical and socio-economic impacts associated with small- to medium-scale mining would be of Medium to High significance in the absence of mitigation but would reduce to Low significance with appropriate management measures.

This EMP therefore serves as the mechanism through which those mitigation measures are implemented. It operationalises the commitments reflected in the “with mitigation” scenarios of the impact assessment table.

The EMP should be considered:

- An implementation framework;
- A compliance tool;
- A monitoring reference document; and
- A practical management guide for site personnel.

It does not alter the findings of the Scoping Report but provides the structured approach required to ensure impacts remain within acceptable residual significance levels.

1.3 Scope of the EMP

This EMP applies to:

- Site establishment and construction activities;
- Small- to medium-scale mining, crushing and associated operational activities;
- Temporary infrastructure;
- Transport and handling of materials;
- Blasting activities (where applicable);
- Decommissioning and progressive rehabilitation.

In terms of personnel the EMP also applies to:

- The Proponent;
- The designated Proponent Representative;
- Contractors and subcontractors;
- All personnel working onsite.

1.4 Management Philosophy

Given the location of the project within a rural communal landscape characterised by:

- Borehole-dependent water use;
- Grazing systems and shared access routes;
- Semi-arid climatic conditions;
- Limited infrastructure redundancy;

this EMP adopts a risk-based and proportionate management approach.

The focus is on:

- Preventing groundwater contamination;
- Controlling disturbance footprint;
- Managing dust, noise and traffic;
- Protecting community safety;
- Maintaining transparent communication.

Monitoring and adaptive management mechanisms are incorporated to ensure that mitigation measures remain effective throughout the duration of the small- to medium-scale mining phase.

2 ROLES AND RESPONSIBILITIES

Effective implementation of this Environmental Management Plan (EMP) requires clear assignment of responsibilities across all parties involved in the Omao small- to medium-scale mining project.

Environmental compliance forms part of the overall operational governance structure and does not operate separately from mining management. Accountability is structured to ensure that environmental obligations identified in the Scoping Report and subsequent EMP are implemented during construction and operational phases.

2.1 Proponent

The Proponent (Omao River Investments (Pty) Ltd) retains overall legal responsibility for environmental compliance under the Environmental Management Act and any associated licence or permit conditions.

The Proponent is accountable for:

- Ensuring compliance with the Environmental Clearance Certificate (ECC);
- Ensuring this EMP is implemented;
- Securing all required permits (e.g., water abstraction, explosives, waste disposal where applicable);
- Allocating adequate financial and operational resources for environmental management;
- Ensuring rehabilitation obligations are fulfilled.

Environmental accountability ultimately rests with the Proponent.

2.2 Proponent Representative

A designated Proponent Representative shall oversee environmental management across all project phases. This role functions as the central coordination point for environmental compliance. Key responsibilities are to include:

- Oversee implementation of all EMP measures;
- Integrate environmental requirements into daily operations;
- Ensure contractors comply with EMP provisions;
- Maintain monitoring and incident records;
- Coordinate community engagement and grievance handling;
- Liaise with regulatory authorities;

- Initiate corrective action where non-compliance is identified.

Table 1: Summary of Proponent-Level Responsibilities

Function	**Accountable Party**
Legal compliance (ECC & licences)	Proponent
EMP implementation oversight	Proponent Representative
Monitoring & record keeping	Proponent Representative
Contractor compliance verification	Proponent Representative
Community grievance coordination	Proponent Representative

2.3 Contractors and Subcontractors

Contractors engaged in site establishment, extraction, blasting, crushing, hauling, or related services are required to comply with the provisions of this EMP.

Contractor responsibilities include:

- Operating within approved disturbance areas;
- Implementing dust, waste, fuel and safety controls;
- Ensuring licensed handling of explosives (where applicable);
- Reporting incidents immediately;
- Attending induction and toolbox talks.

Table 2: Contractor Environmental Obligations

Area	**Contractor Obligation**
Vegetation clearing	Restrict to approved footprint
Fuel handling	Use designated bunded areas only
Explosives use	Certified personnel only
Waste management	Store and dispose appropriately
Traffic control	Adhere to speed limits
Incident reporting	Immediate notification

2.4 Employees

All employees working onsite share responsibility for environmental protection.

Employees must:

- Follow site rules and environmental procedures;
- Use designated refuelling and waste areas;
- Respect blast exclusion zones;
- Report spills, unsafe conditions, or community concerns;
- Adhere to code of conduct requirements when interacting with community members.

Environmental compliance is a shared operational responsibility.

2.5 Regulatory Authorities

Relevant regulatory authorities may include:

- Ministry responsible for Environmental Management (ECC oversight);
- Ministry responsible for Mining;
- Water authorities (where abstraction applies);
- Explosives regulatory authority (where blasting applies).

Authorities may:

- Conduct inspections;
- Request monitoring records;
- Enforce compliance conditions;
- Require corrective measures.

The Proponent Representative shall serve as the primary contact point during inspections.

2.6 Traditional Authority and Community Liaison

The project operates within communal land under Traditional Authority oversight.

While Traditional Authorities do not assume operational responsibility, they form a critical stakeholder interface.

Engagement will include:

- Communication regarding blasting activities (where applicable);
- Discussion of access or grazing concerns;
- Receipt or referral of community grievances;
- Consultation prior to any expansion beyond approved footprint.

Table 4: Accountability Structure Overview

Level	**Primary Responsibility**
Proponent	Legal and regulatory accountability
Proponent Representative	Operational environmental oversight
ECO (if appointed)	Compliance verification
Contractors	Implementation of site-level controls
Employees	Daily compliance adherence
Authorities	Regulatory oversight
Traditional Authority	Community interface

3 EMP MANAGEMENT FRAMEWORK

This section establishes the governance and management philosophy guiding implementation of the EMP for the Omao small- to medium-scale mining project. It is directly informed by the Scoping Report findings and reflects the specific sensitivities of the Omao receiving environment, namely:

- Dependence on communal grazing land;
- Strong reliance on borehole-based groundwater;
- Shared access routes used by people and livestock;
- Low rainfall, high evaporation, and erosion-prone soils;
- Limited infrastructure redundancy.

Management measures are therefore designed to prevent localised impacts from becoming disproportionate within a semi-arid communal landscape.

3.1 Environmental Management Principles

3.1.1 Avoidance and Footprint Minimisation

Disturbance will be limited to approved mining areas. Drainage lines, erosion-prone areas, and high-use grazing routes will be avoided where practicable. Existing access tracks will be used preferentially to prevent unnecessary land clearing.

3.1.2 Groundwater Protection as a Priority

Given community reliance on boreholes and the strong regional water deficit:

- No refuelling within recommended distance from boreholes and/or drainage features;
- Fuel storage will be bunded to appropriate capacity;
- Water abstraction volumes will be recorded;
- No contaminated discharge to soil or water is permitted.

Groundwater protection is treated as a primary environmental constraint.

3.1.3 Progressive Rehabilitation

Where topsoil is present and practicable to recover, it shall be stripped separately from subsoil and stockpiled for reuse in rehabilitation. Topsoil stockpiles shall be located outside drainage lines and managed to minimise erosion. Disturbed areas that are no longer required for active small- to medium-scale mining, and which present erosion risk, shall be contoured or stabilised in a manner proportionate to the scale of disturbance.

Rehabilitation measures will be proportionate to the scale and duration of disturbance associated with the small- to medium-scale mining phase.

3.1.4 Community and Livestock Safety

Active mining and crushing areas will be demarcated and access controlled. Operations will respect communal land-use systems and livestock mobility patterns.

3.1.5 Proportionality to small- to medium-scale mining

Controls are robust but proportionate to a small - scale mining operation.

3.2 Risk-Based Management Approach

Management actions in this EMP are derived directly from the key risk drivers identified in the Omao Scoping Report and are structured around targeted controls rather than generic mitigation.

No.	Key Risk Driver	Targeted Management Approach
1	Land disturbance and vegetation clearance	Strict footprint control, progressive rehabilitation, and erosion prevention
2	Groundwater abstraction and contamination risk	Monitoring of abstraction volumes, borehole performance tracking, spill prevention and response
3	Dust, noise, and traffic	Speed control, dust suppression, transport management, and community notification
4	Waste and fuel handling	Controlled storage, licensed disposal, bunded refuelling areas
5	Community and livestock safety	Physical access control, signage, worker conduct management, Traditional Authority engagement

3.3 Integration with Mining Licence Conditions

Environmental management will be integrated with obligations arising from:

- Environmental Clearance Certificate (ECC);
- Mining licence issued under the Minerals (Prospecting and Mining) Act;
- Water abstraction permits;
- Explosives permits (if applicable);
- Communal land consent agreements.

The Proponent Representative will ensure that:

- Environmental mitigation is incorporated into operational planning;
- Blasting (if undertaken) complies with explosives licensing conditions;
- Water abstraction remains within permitted volumes;
- Rehabilitation obligations are implemented progressively.

Environmental compliance will not operate in isolation from mining compliance but will form part of an integrated operational governance structure.

3.4 Adaptive Management

Given climatic variability in Omao (drought cycles and episodic heavy rainfall), management will be adaptive.

Adaptive triggers include:

- Increased dust complaints → increased watering frequency.
- Borehole yield changes → abstraction review.
- Heavy rainfall event → inspection of erosion controls.
- Community complaint → formal response within defined timeframe.

EMP measures may be adjusted based on monitoring findings, provided that regulatory approval is sought where required.

3.5 Communication and Stakeholder Engagement

The Scoping Report confirmed general community support, with concerns focused on:

- Water protection,
- Traffic safety,
- Waste management,
- Ongoing communication

Accordingly, the project will implement:

- Designated Community Liaison Contact;
- Quarterly engagement with Traditional Authority;
- Immediate notification if blasting is scheduled;
- Public display of grievance contact information.

Community communication will prioritise transparency around:

- Water abstraction,
- Transport schedules,
- Safety zones,

- Employment processes.

3.6 Grievance Mechanism

A formal grievance mechanism will be established to ensure concerns are addressed systematically.

3.6.1 Access to Mechanism

Complaints may be submitted via:

- Telecommunication (designated number),
- Written submission,
- Verbal submission to site office,
- Through Traditional Authority structures.

3.6.2 Registration

All grievances will be logged in a register including:

- Date received,
- Nature of complaint,
- Complainant details (if provided),
- Investigation outcome,
- Corrective action,
- Date resolved.

3.6.3 Response Timeline

The project will ensure that:

- Grievances are acknowledged within a reasonable timeframe following receipt;
- Investigations are initiated as soon as practicable, taking into account the nature and urgency of the complaint;
- Appropriate corrective actions are implemented in a timely manner; and
- Complainants are informed of the outcome once the matter has been assessed.

Complaints relating to health, safety, groundwater contamination, or livestock injury will be prioritised and addressed with urgency.

4 CONSTRUCTION AND OPERATIONAL PHASE MANAGEMENT ACTIONS

The following management measures apply to both the construction (site establishment, clearing, infrastructure setup) and operational (extraction, crushing, hauling, stockpiling) phases of copper ore at the small- scale mining operation at Omao village.

Each subsection directly reflects the mitigation scenario used in the impact assessment to reduce residual significance to Low.

4.1 Vegetation and Habitat Management

4.1.1 Objective

To minimise vegetation loss, prevent unnecessary habitat disturbance, and ensure progressive rehabilitation within the approved mining footprint.

Table 4: Vegetation and Habitat Management Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Demarcation of approved footprint	All disturbance areas (pits, stockpiles, laydown areas, access tracks) to be clearly marked prior to clearing	Proponent Representative / Site Supervisor	Before clearing
Limit clearing to approved areas	No vegetation removal outside demarcated footprint	Proponent Representative / Site Supervisor	Throughout
Avoid drainage corridors	No clearing or stockpiling within ephemeral drainage lines unless technically unavoidable and approved	Proponent Representative / Site Supervisor	Planning & operational
Topsoil stripping and separate stockpiling	Topsoil removed separately and stored for rehabilitation	Proponent Representative / Site Supervisor	During clearing
Progressive rehabilitation	Disturbed areas no longer in use to be contoured and stabilised	Proponent Representative / Site Supervisor	Operational phase

Management Measure	Implementation Requirement	Responsibility	Timing
Protection of protected species (if encountered)	Any protected tree species to be identified and managed in accordance with permit requirements	Proponent Representative / Site Supervisor	Prior to clearing

Performance Indicators

- Disturbance footprint does not exceed approved area.
- No unauthorised clearing recorded.
- Topsoil stockpiles present and protected.
- No stockpiling within drainage corridors.

4.2 Soil Management, Erosion and Drainage Control

4.2.1 Objective

To prevent soil erosion, sediment mobilisation, and alteration of natural drainage patterns in the semi-arid Omao landscape.

Table 5: Soil and Erosion Control Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Minimise exposed surfaces	Limit area of open excavation at any one time	Proponent Representative / Site Supervisor	Throughout
Stabilise stockpiles	Locate away from drainage lines; shape to prevent runoff concentration	Proponent Representative / Site Supervisor	Operational
Maintain natural drainage	Do not obstruct natural flow paths unless engineered crossing is required	Proponent Representative / Site Supervisor	Planning
Inspect after heavy rainfall	Visual inspection of disturbed slopes and drainage crossings	Proponent Representative / Site Supervisor	After major rainfall events

Management Measure	Implementation Requirement	Responsibility	Timing
Re-contour disturbed slopes	Shape slopes to reduce runoff velocity	Proponent Representative / Site Supervisor	As required

Performance Indicators

- No visible uncontrolled erosion channels.
- No sediment deposition into drainage lines.
- Post-rainfall inspections recorded.

4.3 Groundwater Protection and Water Management

4.3.1 Objective

To prevent contamination of groundwater resources and manage abstraction responsibly in a borehole-dependent communal setting.

Table 6: Groundwater Protection Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Record abstraction volumes	Maintain abstraction log where water is sourced; periodically review abstraction trends against operational needs	Proponent Representative / Site Supervisor	Ongoing
Efficient water use practices	Use water only for operational requirements (e.g., dust suppression); avoid unnecessary discharge or wastage; adjust dust suppression frequency based on actual conditions	Proponent Representative / Site Supervisor	Continuous
Leak prevention and maintenance	Regular inspection of hoses, tanks, and fittings to prevent water loss	Proponent Representative / Site Supervisor	Weekly / Ongoing

Management Measure	Implementation Requirement	Responsibility	Timing
Bunded fuel storage	Fuel stored in bunded areas (≥110% capacity) to prevent soil and groundwater contamination	Proponent Representative / Site Supervisor	Prior to storage
Controlled refuelling	Refuelling only in designated, bunded areas; avoid overfilling	Proponent Representative / Site Supervisor	Operational
Fuel efficiency awareness	Encourage minimisation of unnecessary idling and proper vehicle maintenance to reduce fuel consumption	Proponent Representative /Site Supervisor/Drivers	Continuous
Spill kits onsite	Spill response kits available, accessible and maintained	Proponent Representative / Site Supervisor	Continuous
Immediate spill response	Any spill contained and cleaned promptly to prevent soil or groundwater contamination	All personnel	As required
No discharge to soil or drainage	Wastewater not discharged to the environment; collect and manage appropriately	Proponent Representative / Site Supervisor	Continuous
Waste minimisation	Avoid over-ordering of materials; manage consumables to reduce unnecessary waste generation	Proponent Representative / Site Supervisor	Operational

Performance Indicators

- No fuel storage outside bunded areas.
- No evidence of uncontrolled spills.
- Abstraction records maintained.
- No contamination complaints recorded.

4.4 Dust Management

4.4.1 Objective

To control dust emissions arising from excavation, blasting (if applicable), crushing, hauling, and exposed surfaces under dry semi-arid conditions.

Table 7: Dust Management Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Speed control	Low speeds near settlements and on communal roads	All drivers	Continuous
Cover loads	All haul trucks to cover ore during transport	Proponent Representative / Site Supervisor	Operational
Watering of haul roads	Dust suppression during peak dry periods	Proponent Representative / Site Supervisor	As required
Minimise exposed surfaces	Avoid unnecessary stripping	Proponent Representative / Site Supervisor	Continuous

Performance Indicators

- No excessive dust complaints recorded.
- Speed limits observed.
- Haul loads covered.

4.5 Noise and Blasting Management

4.5.1 Objective

To manage operational noise and blasting impacts to protect those in site, nearby settlements and livestock.

Table 8: Noise and Blasting Management Measures

Management Measure	**Implementation Requirement**	**Responsibility**	**Timing**
Controlled blasting schedule	Blasting only during daytime hours unless otherwise authorised	Site Manager	As required
Advance notice of blasting	Inform Traditional Authority and nearby community members where practicable prior to blasting	Proponent Representative	Before blasting
Establish blast exclusion zones	Demarcate and secure exclusion zones prior to detonation to prevent unauthorised access	Proponent Representative / Site Supervisor / Blasting Contractor	Before each blast
Licensed transport of explosives	Explosives transported to site only by licensed and authorised suppliers in accordance with applicable explosives legislation	Licensed Supplier / Proponent Representative / Site Supervisor	As required
Secure storage of explosives	Explosives stored only in approved and secure facilities (if stored onsite), compliant with regulatory requirements	Proponent Representative / Site Supervisor / Licensed Blasting Contractor	As required
Restricted access to explosives	Handling and access limited to authorised and certified blasting personnel only	Proponent Representative / Site Supervisor	Continuous
Explosives inventory control	Maintain delivery and usage records for explosives received and used onsite	Proponent Representative / Site Supervisor / Blasting Contractor	As required

Management Measure	Implementation Requirement	Responsibility	Timing
Safe handling and charging procedures	Charging of blast holes undertaken by certified personnel in accordance with approved safety procedures	Proponent Representative / Site Supervisor /Licensed Blasting Contractor	As required
Post-blast inspection	Inspect blast area for misfires and secure area before allowing access	Licensed Blasting Contractor/ Proponent Representative / Site Supervisor	After each blast
Equipment maintenance	Maintain vehicles and machinery to minimise excessive noise	Contractor/ Proponent Representative / Site Supervisor	Ongoing
Limit unnecessary idling	Avoid prolonged engine idling near settlements	Drivers	Continuous
Protective clothing	Provide personal protective clothing to employees	Proponent Representative / Site Supervisor	Operational

Performance Indicators

- No unresolved noise complaints.
- Personal protective clothing for employees and those on site
- No blasting conducted outside approved daytime hours unless authorised.
- No blasting undertaken without prior notification where applicable.
- No unauthorised access within established blast exclusion zones.
- No explosives delivered to site by unlicensed or unauthorised suppliers.
- No explosives stored outside approved and secure facilities.
- No discrepancies in explosives inventory records.
- No unresolved misfires or blasting-related safety incidents recorded.

4.6 Waste and Hazardous Materials Management

4.6.1 Objective

To ensure solid and hazardous waste generated during construction and small- to medium-scale mining does not contaminate soil, water resources, or communal land.

Table 9: Waste and Hazardous Materials Management Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Designated waste area	Establish clearly demarcated waste storage area onsite	Proponent Representative / Site Supervisor	Before operations
Waste segregation	Separate general, recyclable and hazardous waste	Proponent Representative / Site Supervisor	Ongoing
Secure hazardous storage	Store used oils, filters, contaminated rags in sealed containers	Proponent Representative / Site Supervisor	Ongoing
Licensed disposal	Engage authorised waste service providers for offsite disposal	Proponent Representative / Site Supervisor	As required
No open dumping or burning	Prohibited onsite	All personnel	Continuous
Spill management	Implement procedures outlined in Section 4.3	Proponent Representative / Site Supervisor	Continuous

Performance Indicators

- No visible uncontrolled waste.
- Waste containers secure and labelled.
- Disposal records maintained where applicable.

4.7 Traffic and Road Safety Management

4.7.1 Objective

To manage increased vehicle movement on shared rural access roads and minimise safety risks to community members and livestock.

Table 10: Traffic and Road Safety Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Speed control	Reduced speed near settlements and communal roads	All drivers	Continuous
Road signage	Install temporary warning signage where appropriate	Proponent Representative / Site Supervisor	Before hauling
Transport scheduling	Avoid peak community activity periods where feasible	Proponent Representative / Site Supervisor	Operational
Driver induction	All drivers briefed on livestock and pedestrian awareness	Proponent Representative / Site Supervisor	Before mobilisation
Incident reporting	Any traffic incident recorded and investigated	Proponent Representative / Site Supervisor	As required

Performance Indicator

- No repeated traffic complaints.
- No preventable vehicle–livestock collisions.
- Speed control observed.

4.8 Community Health and Safety Management

4.8.1 Objective

To minimise potential health and safety risks to nearby residents and communal land users.

Table 11: Community Health and Safety Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Dust control implementation	As per Table 4.4	Proponent Representative / Site Supervisor	Ongoing
Blasting notification	Inform Traditional Authority where applicable	Proponent Representative / Site Supervisor	Prior to blasting
Maintain safe buffer zones	Ensure operational areas are clearly demarcated	Proponent Representative / Site Supervisor	Continuous
Restrict public access	Control entry into active mining areas	Proponent Representative / Site Supervisor	Continuous
Complaint handling	Address concerns through grievance mechanism	Proponent Representative / Site Supervisor	Ongoing

Performance Indicator

- No unauthorised access to active areas.
- Complaints addressed through formal mechanism.
- No reported injuries linked to operations.

4.9 Grazing and Access Management

4.9.1 Objective

To minimise disruption to communal grazing patterns and access routes.

Table 12: Grazing and Access Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Micro-siting of infrastructure	Locate facilities to avoid key livestock pathways where practicable	Proponent Representative / Site Supervisor	Planning stage

Maintain access corridors	Ensure community access routes remain open or are safely redirected	Proponent Representative / Site Supervisor	Continuous
Minimise footprint expansion	No expansion beyond approved footprint without engagement	Proponent Representative / Site Supervisor	Continuous
Engagement with Traditional Authority	Consultation prior to any operational changes affecting access	Proponent Representative / Site Supervisor	As required

Performance Indicator

- No sustained obstruction of communal access.
- No unresolved grazing disputes linked to operations.

4.10 Heritage and Chance-Find Procedure

4.10.1 Objective

To prevent irreversible disturbance of archaeological or heritage resources.

Table 13: Heritage Management Measures

Management Measure	**Implementation Requirement**	**Responsibility**	**Timing**
Pre-disturbance awareness	Inform workers about potential heritage sensitivity	Proponent Representative / Site Supervisor	Before clearing
Stop-work procedure	Immediate cessation of work if artefacts uncovered	All personnel	As required
Notify authorities	Report findings to relevant heritage authority	Proponent Representative / Site Supervisor	Immediately
Resume work only after clearance	Await formal instruction before proceeding	Proponent Representative / Site Supervisor	As directed

Performance Indicator

- No unreported heritage disturbance.

- All finds formally recorded and managed.

4.11 Employment and Local Participation

4.11.1 Objective

To promote local economic participation where feasible within the scope of a small- to medium-scale mining project.

Table 14: Employment and Local Participation Measures

Management Measure	Implementation Requirement	Responsibility	Timing
Local employment consideration	Preference given to suitably qualified local candidates where available	Proponent Representative / Site Supervisor	Recruitment phase
Local procurement	Use local suppliers where feasible and practical	Proponent Representative / Site Supervisor	Operational
Transparent communication	Clearly communicate employment scope and duration	Proponent Representative / Site Supervisor	Ongoing

Performance Indicator

- Evidence of local employment where feasible.
- No unresolved grievances relating to employment transparency.

4.12 Health, Safety and Security

4.12.1 Objective

To ensure safe working conditions and prevent community exposure to operational hazards.

Table 15: Health, Safety and Security Measures

Management Measure	Implementation Requirement	Responsibility	Timing
OHS Plan	Implement basic occupational health and safety procedures	Proponent Representative / Site Supervisor	Before operations

Management Measure	Implementation Requirement	Responsibility	Timing
PPE use	Provide appropriate protective equipment	Proponent Representative / Site Supervisor	Continuous
Emergency preparedness	Maintain first aid kits and emergency contact information	Proponent Representative / Site Supervisor	Continuous
Secure storage	Secure fuel, explosives (if used) and equipment	Proponent Representative / Site Supervisor	Continuous
Incident reporting	Record and investigate safety incidents	Proponent Representative / Site Supervisor	As required

Performance Indicator

- No preventable injuries.
- Emergency supplies available onsite.
- Incident register maintained.

5 ENVIRONMENTAL MONITORING PLAN

The Environmental Monitoring Plan establishes procedures for verifying that mitigation measures described in Section 4 are implemented effectively and that residual impacts remain within the significance levels assessed in the Scoping Report.

Monitoring is designed to:

- Confirm compliance with the Environmental Clearance Certificate (ECC);
- Detect emerging risks early;
- Support adaptive management (Section 3.4);
- Provide accountability in a communal land setting;
- Prevent cumulative impact escalation.

Monitoring requirements are proportionate to the small- to medium-scale mining scale of operations.

5.1 Monitoring Principles

Monitoring at Omao will follow these principles:

- *Risk-based focus* – Priority given to groundwater, dust, traffic and community safety;
- *Visual and practical verification* – Appropriate to small- to medium-scale mining scale activity;
- *Incident-driven response* – Triggered action where required;
- *Record-based compliance* – Simple but auditable documentation.

5.2 Environmental Monitoring Matrix

Table 16: Biophysical Monitoring Requirements

Aspect	Indicator	Method	Frequency	Responsibility	Trigger / Action
Vegetation disturbance	Disturbance within approved footprint	Visual inspection	Monthly	Proponent Representative / Site Supervisor	Stop unauthorised clearing; rehabilitate area
Topsoil management	Separate stockpiles present	Visual inspection	During clearing	Proponent Representative / Site Supervisor	Correct stockpiling method

Aspect	Indicator	Method	Frequency	Responsibility	Trigger / Action
Erosion control	No active erosion channels	Post-rainfall inspection	After major rainfall	Proponent Representative / Site Supervisor	Implement slope stabilisation
Groundwater abstraction	Abstraction records maintained	Logbook review	Ongoing	Proponent Representative / Site Supervisor	Review if abnormal volumes recorded
Fuel storage	Bund integrity	Visual inspection	Weekly	Proponent Representative / Site Supervisor	Repair bund immediately
Spills	Spill register	Incident log	As required	Proponent Representative / Site Supervisor	Immediate containment & clean-up
Dust generation	Visible excessive dust / complaints	Visual observation & complaint log	Weekly & as needed	Proponent Representative / Site Supervisor	Increase suppression measures
Noise/blasting	Compliance with schedule	Operational log	As required	Proponent Representative / Site Supervisor	Investigate complaints

Table 17: Socio-Economic Monitoring Requirements

Aspect	Indicator	Method	Frequency	Responsibility	Trigger / Action
Traffic safety	Speed compliance; incident log	Spot checks & log review	Monthly	Proponent Representative	Reinforce driver briefing

Aspect	Indicator	Method	Frequency	Responsibility	Trigger / Action
				/ Site Supervisor	
Grazing access	No blocked access routes	Visual inspection & community feedback	Monthly	Proponent Representative / Site Supervisor	Adjust micro-siting
Community complaints	Grievance register entries	Register review	Ongoing	Proponent Representative / Site Supervisor	Investigate and respond
Waste management	No uncontrolled waste	Site inspection	Weekly	Proponent Representative / Site Supervisor	Immediate clean-up
Employment transparency	Recruitment records	Document review	As required	Proponent Representative / Site Supervisor	Clarify communication
Health & safety	Incident register	Record review	Monthly	Proponent Representative / Site Supervisor	Implement corrective action

5.3 Incident Reporting and Corrective Action

Any environmental or safety incident shall:

1. Be recorded in an incident register;
2. Be investigated by the responsible site authority;
3. Have corrective measures identified;
4. Be closed once corrective action is implemented.

Serious incidents involving groundwater contamination, injury, or livestock mortality shall be prioritised and addressed without delay.

5.4 Reporting

Monitoring information will be retained onsite and made available to regulatory authorities upon request.

Where required under ECC conditions:

- Periodic compliance reporting will be submitted;
- Non-compliance events will be documented and corrective actions recorded.

5.5 Adaptive Management Link

Monitoring outcomes may trigger adjustments to operational practices in accordance with Section 3.4 (Adaptive Management). This ensures that:

- Dust suppression frequency may be increased;
- Water abstraction may be reviewed;
- Traffic management may be adjusted;
- Erosion controls may be strengthened.

5.6 Cumulative Impact Safeguard

Monitoring measures collectively ensure that:

- Vegetation loss remains site-specific;
- Groundwater risks remain controlled;
- Traffic and dust do not escalate;
- Community interaction remains manageable.

Effective implementation of this monitoring plan supports the cumulative impact conclusion that overall significance remains Low.

6 DOCUMENT CONTROL, TRAINING AND RECORD KEEPING

This section establishes procedures for ensuring that the Environmental Management Plan (EMP) remains an active management tool rather than a static document. It provides for document control, training, awareness, and maintenance of environmental records in support of regulatory compliance and adaptive management.

The systems described below are scaled to the small- to medium-scale mining nature of the Omao project and are intended to ensure accountability without imposing unnecessary administrative burden.

6.1 EMP Document Control

6.1.1 Objective

To ensure that the EMP remains current, accessible, and implemented in accordance with approved conditions.

6.1.1.1 Version Control

- The EMP shall be assigned a version number and date.
- Any revisions shall be documented and recorded.
- Updated versions shall replace outdated copies onsite.

6.1.1.2 Availability

- A copy of the approved EMP shall be kept onsite.
- The EMP shall be accessible to supervisory staff and contractors.
- Regulatory authorities may request access during inspections.

6.1.1.3 Review and Updates

The EMP may be reviewed:

- Following significant operational changes;
- Following environmental incidents;
- If monitoring indicates recurring non-compliance;
- If required by regulatory authorities.

Revisions, where required, shall be undertaken in accordance with applicable regulatory procedures.

6.2 Training and Environmental Awareness

6.2.1 Objective

- To ensure that personnel understand their environmental responsibilities and the key risks identified in the impact assessment.
- Training requirements are proportionate to the scale of the project and focus on practical awareness.

6.2.2 Site Induction

All personnel (including contractors and drivers) shall receive basic environmental induction prior to commencing work. Induction shall include:

- Approved disturbance footprint boundaries;
- Groundwater protection measures;
- Waste management procedures;
- Spill response procedures;
- Traffic and livestock awareness;
- Heritage chance-find procedure;
- Grievance mechanism awareness.

6.2.3 Toolbox Talks

Periodic toolbox talks may be conducted to reinforce:

- Dust control practices;
- Safe refuelling procedures;
- Speed limits;
- Community interaction conduct;
- Emergency response procedures.
- Occupational Health and Safety

6.2.4 Specialist Training

Where applicable (e.g., blasting, hazardous material handling), personnel shall comply with legally required certifications and training standards.

6.3 Record Keeping

6.3.1 Objective

To maintain adequate documentation demonstrating compliance with the EMP and supporting monitoring activities.

The following records shall be maintained onsite:

- Disturbance footprint maps;
- Water abstraction log (where applicable);
- Fuel storage inspection records;
- Waste disposal records (where applicable);
- Incident register;
- Grievance register;
- Post-rainfall erosion inspection notes;
- Safety incident records.
- Explosive storage, use and blasting logs

Records may be maintained in electronic or hard copy format and shall be retained for inspection upon request by regulatory authorities.

6.4 Compliance Audits and Inspections

Internal inspections shall be undertaken periodically to verify implementation of:

- Vegetation and footprint controls;
- Fuel storage and spill prevention measures;
- Waste management practices;
- Traffic and safety measures.

Where required under ECC conditions, external or regulatory inspections may occur. Corrective actions identified during inspections shall be documented and tracked to closure.

6.5 Integration with Operational Management

Environmental responsibilities shall be integrated into site supervision and daily operational decision-making. Environmental compliance will not operate separately from operational management but will form part of the overall governance structure described in Section 3.

7 ESTIMATED ENVIRONMENTAL MANAGEMENT AND MONITORING COSTS

Because the project is still in the planning and pre-operational stage, and detailed design elements are still being refined, the costing of environmental management and monitoring measures is necessarily indicative. At this phase, most mitigation and operational controls described in the EMP rely on standard practices that will be integrated into normal construction and operational procedures once the project commences. As such, the majority of environmental management actions do not yet translate into discrete, standalone environmental expenditures.

7.1 Operational Absorption of EMP Actions (Planning Assumption)

Many EMP measures—such as dust control, demarcation of work areas, basic safety buffer zones, access control, and complaint handling—are expected to be carried out by personnel and equipment that will already be in place during construction and operation. These are typically funded through general operational budgets, which cannot yet be itemised because the project design and staffing plans are still under development.

Therefore, most EMP activities at this stage are categorised as “operationally absorbed”, and specific costing will only be possible once the project moves closer to mobilisation and site establishment.

7.2 Design-Dependent Costs

Certain mitigation measures may require additional resources—for example, enhanced dust suppression, specialised monitoring equipment, or additional site signage. The need and scale for such measures depend entirely on final site layout, production levels, and operational methodologies, none of which are confirmed at the EIA stage.
These potential costs are thus flagged as design-dependent and will be defined during the detailed design or pre-construction phase.

7.3 Engagement of an Environmental Consultant

To ensure that the EMP requirements are correctly aligned to real site conditions once the project commences, the Proponent will engage an Environmental Consultant during the early stages of project implementation. At the planning stage, this is the only cost that can be estimated with reasonable certainty.

The consultant will be responsible for:

- early-stage environmental oversight and compliance guidance
- verifying practical on-site implementation of EMP measures
- contextualising and adjusting the EMP based on actual field conditions
- conducting initial monitoring, inspections, and reporting
- advising on any additional resources or costs that may be required during the first months of operation

7.3.1 Estimated Cost: Environmental Consultant

The estimated cost for the consultant is NAD 30,000 per month. This cost will form the baseline budget for environmental management during the initial project implementation period

It covers early-stage environmental monitoring, site inspections, EMP implementation training, capacity-building sessions, and mentoring of the designated Environmental and Safety personnel. The consultant will also support reporting obligations and conduct performance evaluations of EMP compliance during the initial implementation period. Once on-site personnel demonstrate sufficient competency to manage environmental and safety responsibilities independently, the consultant's role will gradually be phased out.

Any subsequent project-specific costs identified by the consultant (e.g., enhanced monitoring, additional mitigation infrastructure) will be incorporated into the monthly environmental management and monitoring budget once the project becomes operational.

8 CONCLUSION AND RECOMMENDATIONS

This Environmental Management Plan (EMP) has been developed to operationalise the mitigation measures identified in the Environmental Scoping Report for the proposed small- to scale copper mining operation at Omao village, Opuwo rural constituency in the Kunene region. The impact assessment concluded that, in the absence of mitigation, several biophysical and socio-economic impacts would be of Medium to High significance. However, with implementation of the management measures outlined in this EMP, residual impacts are reduced to Low significance, and are expected to remain:

- Site-specific;
- Short-term;
- Reversible (with the exception of unmanaged heritage disturbance);
- Non-escalatory at a cumulative level.

The EMP is therefore the primary mechanism through which the project transitions from inherent risk to managed, acceptable residual impact.

8.1 Environmental Safeguards in a Communal Landscape

The Omao project is located within a rural communal setting characterised by:

- Dependence on borehole-based groundwater;
- Livestock grazing systems and shared access routes;
- Semi-arid climatic conditions with episodic rainfall;
- Limited infrastructure redundancy.

In this context, particular emphasis has been placed on:

- Groundwater protection as a primary environmental constraint;
- Controlled disturbance and progressive rehabilitation;
- Traffic and livestock safety;
- Clear community communication channels;
- Practical grievance management.

The EMP recognises that even short-term, localised impacts may have disproportionate consequences in a resource-constrained environment. Accordingly, the measures prescribed are precautionary but proportionate to the scale of small- to medium-scale mining operation.

8.2 Cumulative Impact Position

The cumulative impact assessment determined that, given:

- The spatially limited footprint;
- The temporary nature of the activity;
- The absence of long-term abstraction;

Cumulative impacts are unlikely to exceed Low significance, provided that mitigation measures are effectively implemented.

This EMP therefore serves as the key safeguard ensuring that:

- Vegetation disturbance does not expand beyond approved areas;
- Groundwater risks remain controlled;
- Dust and traffic impacts do not escalate;
- Community interaction remains manageable.

8.3 Adaptive and Proportionate Management

The EMP adopts a risk-based and adaptive management approach. Monitoring measures are designed to detect early warning signs of environmental stress or community concern, allowing for responsive adjustments where necessary.

Management systems described herein are intentionally scaled to a small- to medium-scale mining activity and avoid unnecessary complexity, while remaining compliant with regulatory expectations.

Should the project evolve beyond the scope of small- to medium-scale mining, or should operationally scale increase materially, a revised environmental assessment and updated EMP may be required in accordance with applicable legislation.

8.4 Overall Conclusion

Based on the findings of the impact assessment and the implementation of the management and monitoring measures set out in this EMP, the proposed small- to medium-scale mining at Omao are not expected to result in significant adverse environmental or socio-economic effects.

Impacts are anticipated to remain:

- Low in residual significance;
- Localised in extent;
- Temporary in duration; and
- Manageable within the framework provided.

Effective implementation of this EMP, combined with responsible site management and ongoing community engagement, will ensure that the project proceeds in a manner consistent with environmental protection principles and communal land stewardship.