



Proposed Water Abstraction, Supply and Storage Infrastructure, Haib Draft Environmental Management Plan

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ABBREVIATIONS

AP	Acid Potential
APP	Atmospheric Pollution Prevention (Ordinance)
ARD	Acid Rock Drainage
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEO	Chief Executive Officer
CMSA	Copper Mines of Southern Africa
Cu	Copper
DAS	Dust-a-Side
DSM	Deep-South Mining Company
DTH	Down-the-hole (drilling)
EAP	Environmental Assessment Practitioner
EAPAN	Environmental Assessment Professionals of Namibia
EBRD	European Bank for Reconstruction and Development
ECC	Environmental Clearance Certificate
EHS	Environmental Health and Safety
EP	Equator Principle
EPL	Exclusive Prospecting License
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GDP	Gross Domestic Product
GFM	Great Fitzroy Mines NL
GISTM	Global Industry Standard on Tailings Management
GN	General Notice
HIV	Human Immunodeficiency Virus
HM	Haib Minerals
I&APs	Interested and Affected Parties
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
IEMA	Institute of Environmental Management and Assessment (UK)
IFC	International Finance Corporation
IGF	Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
ILO	International Labour Organization
IPP	Independent Power Producer
ISEP	Institute of Sustainability and Environmental Professionals
KIRLUP	Kharas Integrated Regional Land Use Plan
KP	Knight Piésold Consulting (Pty) Ltd
KRC	King Resources of South Africa (Pty) Ltd
LDV	Light Delivery Vehicle
LOM	Life of Mine
MAFWLR	Ministry of Agriculture, Fisheries, Water and Land Reform
mamsl	Metres above mean sea level
mbgl	Metres below ground level
MEFT	Ministry of Environment, Forestry and Tourism
MFMR	Ministry of Fisheries and Marine Resources (Namibia)
MIME	Ministry of Industries, Mines and Energy

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ML	Mining License
Mtpa	Million tonnes per annum
NamPort	Namibian Ports Authority
NamPower.....	Namibia Power Corporation
NamWater	Namibia Water Corporation
NCE	Namibia Chamber of Environment
NCJV	Namibian Copper Joint Venture
NCM	Namibian Copper Mines Inc.
NDP	National Development Plan
NHC.....	National Heritage Council of Namibia
NNP	Net Neutralising Potential
OHTL.....	Overhead Transmission Line
ORASECOM	Orange-Senqu River Commission
PEA	Preliminary Economic Assessment
Project	Haib Copper Project
ROM	Run-of-Mine
RTZ	Rio Tinto Zinc (former name of Rio Tinto plc)
SADC	Southern African Development Community
SEA	Strategic Environmental Assessment
TCu.....	Total Copper
TSF.....	Tailings Storage Facility
UNAM.....	University of Namibia
UNFCCC	United Nations Framework Convention on Climate Change
WHO.....	World Health Organisation
XRD	X-Ray Diffusion

1.0 INTRODUCTION

1.1 Project Overview

Namibia Water Corporation Ltd (NamWater) is Namibia's national bulk water utility and water resource management authority, established to ensure a sustainable, safe, and reliable water supply for domestic, industrial, and commercial use across the country. NamWater is a recognised and licensed authority for the abstraction and distribution of bulk water in Namibia, ensuring that water use is sustainable, legally compliant, and environmentally responsible.

NamWater seeks to apply for an Environmental Clearance Certificate (ECC) for the development of water abstraction, supply and storage infrastructure to support the proposed Haib Copper Mine on Exclusive Prospecting License (EPL) 3140 in the extreme south of Namibia. The Haib Copper Mine (Haib) is being developed by Haib Minerals (Pty) Ltd (Haib), a subsidiary of Koryx Copper (Koryx). The Haib Copper Mine is a porphyry copper exploration project located in the ǀKharas Region of southern Namibia. Haib holds EPL 3140, which allows for the exploration of base, rare and precious metals over an area of 36,571 hectares (ha).

The development of the proposed Haib Copper Mine requires a sustainable water source to support its operational and processing activities. NamWater intends to provide this service through the abstraction of water from the Orange River and conveyance to the off-channel water storage dam (hereby referred to as the 'Project'). The Project triggers listed activities under the Environmental Management Act (EMA), 2007, and requires an Environmental Clearance Certificate (ECC) from the Ministry of Environment, Forestry and Tourism (MEFT). Note the combined water abstraction, supply and storage infrastructure together with the Haib Copper Mine is termed the Haib Copper Project in this document. "The Project" however refers to the proposed water abstraction, supply and storage activities.

Knight Piésold Consulting (Pty) Ltd Namibia (KP) was appointed by Koryx to support the development of environmental scoping and impact studies associated with the application for an ECC for Haib Copper Mining Project, as well as the application for an ECC for water abstraction, supply and storage on behalf of NamWater.

The Project includes the development and operation of water abstraction, supply and storage infrastructure required to support the Haib Copper Mines' annual water demand of 20 million cubic meters per annum (Mm³/a). This is inclusive of the development of water abstraction works along the Orange River, a water supply pipeline with booster pump stations, an off-channel water storage dam (concrete face rockfill with capacity up to 25 million m³), and associated infrastructure (roads, transmission lines, etc.).

The Project would support the proposed Haib Copper Mine which comprises an open pit mine, a 37 Million tonnes per annum (Mtpa) crushing, milling and flotation concentrator, a hydrometallurgical plant consisting of an 3 Mtpa heap leach, copper solvent extraction, impurity removal and copper electrowinning plant, as well as infrastructure on and off site necessary to support these operations (waste rock dumps, stockpiles, tailings storage facilities, pipelines and abstraction works, power infrastructure, roads, offices, etc.). The operation will achieve a combined throughput of 40 Mtpa. The mining schedule indicates a total material movement of approximately 87.5 Mtpa, providing approximately 23 years' supply of mineralised material. This equates to a total of 1.58 billion tonnes of material to be mined.

The Haib Copper Mine is currently in the exploration and studies phase, whereby the feasibility of the mine is being defined through ongoing investigations and analysis. This means the Project is not a guarantee and remains under development towards assessing feasibility. The broad schedule expected before construction works indicates that investigations and financing will continue into the early part of 2028.

1.2 Project Location

The water abstraction, supply and storage infrastructure is strategically positioned along the Orange River and closely associated with the Haib Copper Mine development and operational infrastructure on EPL 3140 (Figure 1-1). The Orange River runs immediately to the south of the EPL, and a number of farms surround the EPL.

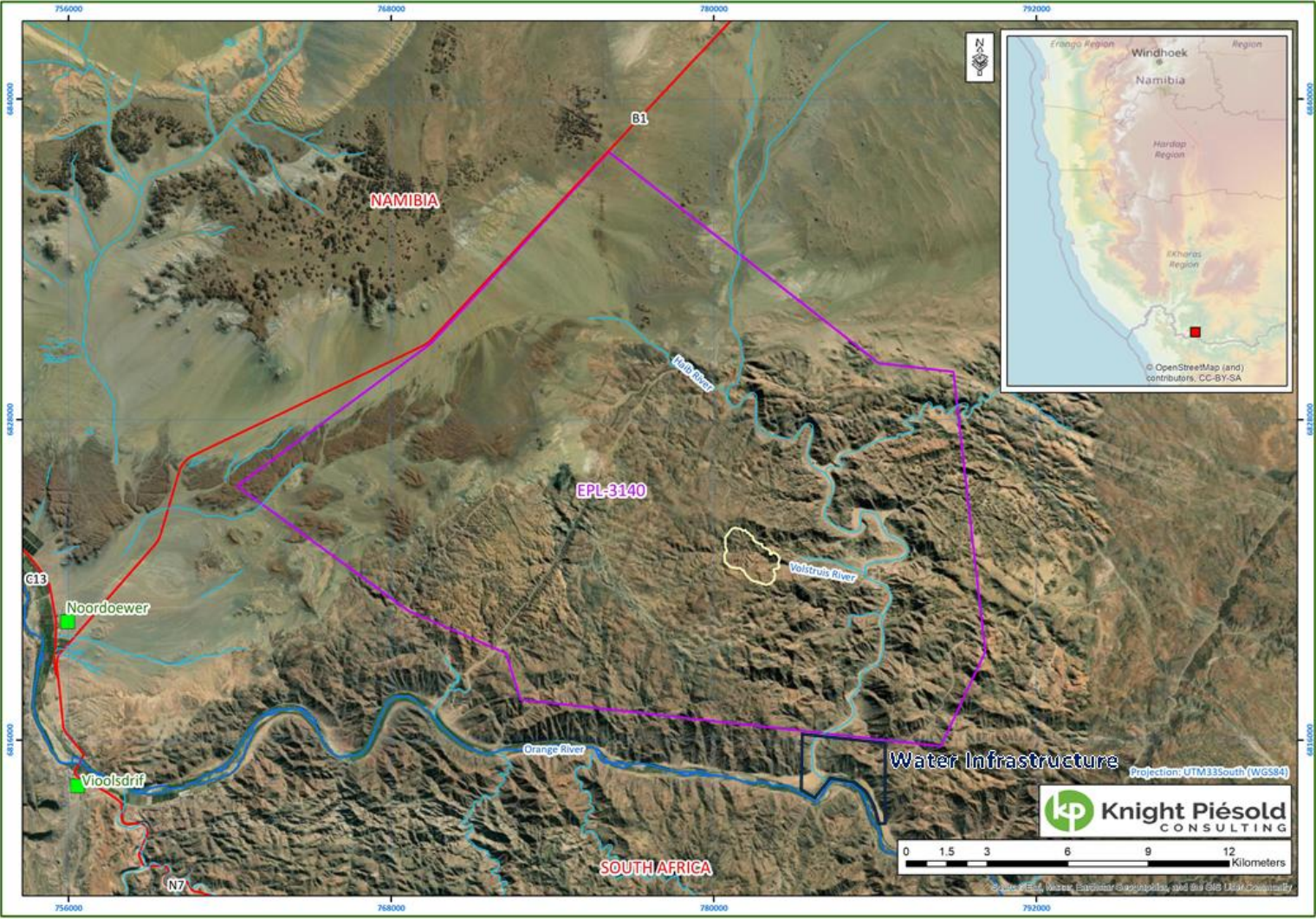


Figure 1-1: Location of EPL 3140 in southern Namibia

2.0 ROLES AND RESPONSIBILITIES

This EMP and subsequent ECC will constitute a formal and binding agreement between NamWater and the Government of Namibia once approved and issued by the Office of the Environmental Commissioner. NamWater is accountable for ensuring compliance with the EMP and for allocating adequate resources to meet all environmental management commitments. Effective implementation of the EMP relies on the clear assignment of roles and responsibilities for each management action. The key roles and associated responsibilities relevant to the EMP are outlined below.

Table 2-1: Applicable Roles and Responsibilities

Roles	Responsibilities
General Manager	Overall responsibility for the implementation of and compliance with the EMP. Ensures adequate resources and integration of EMP requirements into contracts and engages regulators (MEFT/MAWLR) on significant compliance matters.
Environmental Manager	Provides support to various departments to implement the EMP commitments throughout all project phases, managing the Environmental Control Officer and Contractor and tending to any grievances raised. Maintains legal/permit compliance (e.g., ECC conditions, abstraction limits), oversees monitoring and reporting, and drives corrective/preventive actions.
Resident Engineer	Provides engineering, planning and maintenance support for infrastructure, machinery and equipment requirements. Reviews and enforces method statements and designs to incorporate environmental controls (bundling, erosion/sediment control, intake protection) and verifies as-built compliance.
Environmental Control Officer (ECO)	Responsible for compliance with the requirements of the EMP during the construction phase, as well as undertaking training of site personnel. Conducts regular inspections/audits, issues non-conformance reports with follow-up actions, and exercises stop-work authority for serious environmental risks.
Operations Manager: Business Unit South (BUS)	Responsible for the operational activities undertaken for the project, including the successful implementation of the EMP, managing stakeholder expectations and tending to grievances lodged.
Contractor	Responsible for financial management of the construction phase activities, management of contractor personnel and ensuring environmental and social awareness is undertaken by contractor personnel on site. Prepares and implements approved environmental method statements (spill prevention/response, waste handling, erosion control), keeps records and reports performance to the ECO/Resident Engineer.

3.0 AUDITING AND REPORTING

3.1 Purpose of the EMP

The EMP details the actions required to effectively implement the mitigation measures identified in the EIA. These actions are required to minimise negative impacts and enhance positive impacts associated with the construction, operation and decommissioning of water abstraction, supply and storage from the Orange River to support the Haib Copper Mine by NamWater Ltd.

The EMP sets out the commitments as required by Section 8(j) of the Environmental Management Act Regulations as governed by the Government of the Republic of Namibia's Ministry of Environment, Forestry and Tourism (MEFT). Those requirements include the following:

- (j)(aa) information on any proposed management, mitigation, protection or remedial measures to be undertaken to address the effects on the environment that have been identified including objectives in respect of the rehabilitation of the environment and closure;
- (bb) as far as is reasonably practicable, measures to rehabilitate the environment affected by the undertaking of the activity or specified activity to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development; and
- (cc) a description of the manner in which the applicant intends to modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation remedy the cause of pollution or degradation and migration of pollutants.

An EMP is a living document and will be updated by NamWater or their consultant(s) and amended as new information (e.g. environmental and social data from ongoing studies), policies, authority guidelines and technologies develop. The EMP will also be reviewed and updated, if required, based on the findings and recommendations of periodic internal and external audits and performance assessments Should listed activities) as defined in the Environmental Impact Assessment Regulations: Environmental Management Act, 2007 (Government Gazette No. 4878) be triggered (as a result of future modifications/changes at the Smelter), this EMP will be updated as a result of another EIA process as stipulated in the Regulations.

3.2 Auditing

To ensure effective implementation of management measures and compliance with the EMP and environmental and social legislative requirements an auditing and reporting programme is proposed for the water abstraction, supply and storage (Table 3-1). The purpose of auditing is to ensure continual improvement in environmental and social performance.

Table 3-1: Auditing requirements

Audit	Reporting Requirements	Action Plan	
		Responsibility for Audit	Frequency of Audit
Quarterly EMP Inspections Auditing compliance of the construction/ operations contractor to this EMP and any other legal requirements e.g.	Internal report to managers discussion for	Environmental Manager	Construction Phase: Monthly Operational Phase: Quarterly

Audit	Reporting Requirements	Action Plan	
		Responsibility for Audit	Frequency of Audit
licenses, authorisations, NHC consent etc			
Management Review of EMP	Internal Report	General Manager and senior management	Annually
Internal (Bi-annual) EMP Compliance Audit Auditing compliance to this EMP and any other relevant legal requirements e.g. licenses, authorisations, NHC consent etc.	Internally produced to be submitted to MEFT and environmental Authorities	Environmental Manager	Twice a year (Bi-annual)
External EMP Compliance Audit	Externally produced report to environmental authorities and distributed internally	Environmental Manager	Every two years (Biennial)

3.3 Reporting

Reporting requirements are presented in Table 3-2.

Table 3-2: Reporting Requirements

Report	Description	Action Plan	
		Responsibility	Frequency
Water Abstraction Reporting	Reporting on water abstracted from the Orange River as per Water Abstraction License conditions to MAFWLR	Environmental Manager	Monthly and Annually
Stakeholder / Community Feedback Report	Periodic feedback to key stakeholders including following: <ul style="list-style-type: none"> • Compliance with the EMP • Abstraction volumes and rates • Results of monitoring programmes • Incidence reports • Grievances 	Environmental Manager	Quarterly
Training and Awareness	Maintenance of records for all training and awareness specifically relating to: <ul style="list-style-type: none"> • Environment • Heritage • EMP • Employee wellbeing 	Environmental Manager	Ongoing / As it happens

Report	Description	Action Plan	
		Responsibility	Frequency
Incidence recording and adaptive management	<p>The recording of incidences and non-compliances with EMP and appropriate management to be included in bi-annual reporting including such as, not limited to:</p> <ul style="list-style-type: none"> • Non-compliances with EMP • Plant / animal death/injury • Spills (water and contaminants) • New roads/ infrastructure • Damage to sites of heritage importance • Employee injury etc. 	Environmental Manager	Ongoing / As it happens
Maintenance of records	<p>Maintenance of records as per the EMP including, not limited to:</p> <ul style="list-style-type: none"> • Rehabilitation photographic records • Safe disposal of waste • Volumes of water abstracted for use • Results of air and water monitoring programmes • Agenda, minutes of meetings under the stakeholder engagement plan • Grievances lodged and feedback 	Environmental Manager	Ongoing / As it happens

4.0 ENVIRONMENTAL MANAGEMENT PLAN

4.1 Environmental Management Plan

The Environmental Management Plan (EMP) summarises the mitigation and management actions required to manage impacts identified in the Environmental Impact Assessment (EIA) for the water abstraction, supply and storage activities. The EMP guides the streamlining the implementation and monitoring of management efforts. The applicant is to ensure full compliance not only with this EMP but also with all Namibian legislation, and as far as possible all best practice guidelines.

4.1.1 Pre-Construction and Construction Phase

Table 4-1: Construction Phase EMP

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
Administrative				
Legal / Permitting	Legal non-compliance	Obtain the ECC before commencing any listed activities.	NamWater GM, Environmental Manager	Pre-construction and ongoing
		Obtain the Water Abstraction License and any permits for river works, Overhead Transmission Lines (OTL), roads and laydowns.		
		Obtain National Heritage Council consent where required for works near heritage resources.		
		Incorporate all permit and license conditions into contractor contracts and site induction packs.		
Project establishment and training	Weak implementation and non-compliance	Conduct site induction for all personnel and contractors on the EMP, spill response, chance-finds, biodiversity and alien control, grievance and incident reporting.	Contractor, NamWater's ECO	Pre-construction
		Provide refresher training quarterly and upon personnel or scope changes.		During onboarding and quarterly
		Keep signed attendance registers and training materials on file.		Throughout life of project
Climate				
Climate Management	Generation of GHGs	Limit vegetation clearing to the essential construction footprint.	Contractor, NamWater's ECO	During construction
		Maintain vehicles and equipment according to manufacturer schedules.		
		Prohibit unnecessary idling and enforce idling limits.		
		Use low-sulphur diesel where available.		
Waste				
Waste Management	Waste Generation	Suitable receptacles with lids for waste disposal will be provided at appropriate locations on site.	Contractor, NamWater's ECO	

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
		Hazardous waste (including hydrocarbon contaminated material/soil) and domestic waste will be disposed of at an appropriate waste disposal facility.		
		Prohibit the burning of waste material.		
		Segregate and recycle waste to reduce disposal emissions.		
Material and Spoil				
Material Spoil	Material Spoil contributing to impact footprint	Situate spoil rock from construction and pipeline installation within the dam inundation area or within existing infrastructure footprints on the Haib Copper Mine site (i.e. Waste Rock Dumps (WRD) etc)	Resident Engineer, Contractor	Design and during construction
		Spoil locations must not contribute to the impact footprint		
Material sources	Material sources / quarries contributing to impact footprint	Source material for concrete batching or construction (off channel storage dam, or bedding for the pipeline etc) must be sourced from within the dam inundation zone or within existing infrastructure footprints on the Haib Copper Mine site (i.e. the pit, Waste Rock Dump (WRD), Tailings Storage Facility (TSF) etc)		
		Material sources / quarries must not contribute to the activity impact footprint		
Topography				
Topography and Drainage Management	Drainage alteration and erosion	Maintain natural drainage patterns where practicable.	Resident Engineer, Contractor	Design and during construction
		Install temporary cut-off drains, silt fences and energy dissipaters before earthworks.		
		Separate clean and dirty water and stabilise discharge points.		
Soil				
Site Clearance	Soil erosion and loss of topsoil	Clear only areas of topsoil if required for construction purposes and keep development footprint areas as small and compact as possible.	Contractor, NamWater's ECO	Throughout construction
		Strip and stockpile, together with any vegetation cover present, the usable soil (typically the top 150 millimetres (mm) of soil or until hard rock is encountered where soil depths are <150 mm).		
		Avoid mixing topsoil and subsoil.		
		Maintain topsoil stockpiles for use in rehabilitation efforts.		

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
Hazardous Materials Management	Soil contamination	Rehabilitate temporary tracks immediately after use.		
		Bund hazardous chemical / fuel storage to 110% of the largest container volume.		
		Refuel only on impermeable surfaces or drip trays.		
		Undertake vehicle maintenance on bunded or impenetrable areas and not on bare soil.		
		Provide spill kits and train staff in the use thereof.		
		Restrict the mixing of concrete and the cleaning of mixing equipment to lined or impermeable surfaces.		
		If a spillage occurs, clean it up immediately and dispose of contaminated soil at an appropriate hazardous waste disposal site.		
		Implement proper pollution control measures to prevent accidental spillages, such as keeping hazardous materials in bunded areas to prevent spillages through runoff.		
Surface Water				
Surface water – quality	Pollution and contamination of surface water and the surrounding environment	Schedule in-channel works for the dry season.	Resident Engineer, Contractor, NamWater's ECO	Pre-construction
		Design all stormwater interventions to allow uncontaminated stormwater to bypass the construction areas.		Throughout construction
		Install and maintain silt fences and settlement ponds downstream of disturbed areas.		
		Implement proper pollution control measures to prevent accidental spillages, such as keeping hazardous materials in bunded areas to prevent spillages through runoff.		
		Use drip trays for all refuelling and maintenance near watercourses.		
		Prohibit equipment washing and materials mixing within the Orange River and tributaries.		
		Provide serviced ablutions and remove wastewater to approved facilities.		
		Contractor to develop routine monitoring programme for water quality within the Orange River to be undertaken during the construction of the abstraction facility, inclusive of upstream, downstream and project site monitoring locations.		

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
		Keep temporary works narrow and aligned along banks to maintain connectivity.		
		Maintain a low-flow bypass channel during construction.		
Surface water – quantity	Reduction in surface water quantity	Develop a water abstraction protocol and operating procedure that is guided by the classification of surplus flow towards avoiding impacts on downstream users.	Environmental Manager, Operations Manager: Business Unit South (BUS)	Pre-construction
		Ensure availability of water storage infrastructure or equipment required to effectively implement the water abstraction plan and risk periods therein (water bladders, holding dams etc)		
		Develop routine monitoring programme for abstraction and flow within the Orange River.		
		Monitor and manage water loss (spills, overflow etc).		
		Prohibit abstraction before the licence and operating rules are in place.		
		Install flow meters and effectively record abstraction volumes and rates		
		Groundwater		
Groundwater Management	Contamination of groundwater resources	Train construction crews in groundwater protection and spill response.	Contractor, NamWater's ECO	Pre-construction and onboarding
		Develop and implement spill prevention measures and emergency response plans to address accidental spills of fuel, hazardous substances and waste.	Resident Engineer, Contractor	Pre-construction
		Undertake vehicle maintenance and refuelling on bunded or impenetrable areas and not on bare soil		Throughout construction
		Bund hazardous chemical / fuel storage to 110% of the largest container volume.		
		Develop and implement spill prevention measures and emergency response plans to address accidental spills of fuel, hazardous substances and waste.		
Terrestrial Biodiversity				

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
Biodiversity – terrestrial	Habitat loss, fauna injury and protected flora removal	Minimise the construction footprint and use directional clearing.	Contractor, NamWater's ECO	Pre-construction
		Clearly demarcate and fence off the boundaries of the construction footprint areas, to limit migration across the area, prioritising any temporary laydown areas into low and medium sensitivity areas.		
		Implement a zero-tolerance policy on fishing, hunting, plant collection and firewood gathering.		Pre-construction and onboarding
		All staff must undergo Environmental Awareness Training. Training shall include information on sensitive environmental receptors within the Project area, species identification, conservation status, habitat requirements and management obligations.		
		Enforce strict track discipline by using only existing tracks / access roads when travelling in the area and do not go offroad.		Pre-construction and construction
		Avoid leaving open trenches overnight or install escape ramps and inspect daily.		
		Obtain permits for the removal and relocation of protected species.		
		Prohibit the use of herbicides and pesticides within the project area.		
		Prohibit open fires within the project area.		
		Avoid restricting movement of faunal species through the appropriate design and placement of linear infrastructure (pipelines, fences, roads etc)		
		Remove and relocate all protected species with a good relocation/survival potential, e.g., <i>Aloe</i> spp., <i>Commiphora</i> spp., <i>Hoodia</i> spp., <i>Lithops</i> spp., <i>Tylecodon</i> spp., etc. and fauna under valid permits.	NamWater's ECO	Pre-construction
		Undertake concurrent rehabilitation, where feasible, using indigenous vegetation.	Contractor, NamWater's ECO	Construction

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
		Clearing of large trees, shrubs and other biotic sources from the dam inundation area to avoid the formation of methane (GHG) prior to inundation.		
Biodiversity - Avifauna	33 kV OHTL – Avifauna collisions, fauna injury	Install Bird Flight Diverters along sensitive spans of the entire line.	Resident Engineer, Contractor	During line construction
		Avoid routing on ridge crests where practicable.		
		Backfill and secure pole holes at the end of each shift.		
Biodiversity – alien control	Proliferation of invasive alien species	Develop and implement an alien and invasive species management plan.	Contractor, NamWater's ECO	Pre-construction Throughout construction
		Clean vehicles and equipment before entry to prevent seed transfer.		
		Remove <i>Prosopis</i> spp. and other invaders by manual or semi-mechanised methods, avoiding the use of herbicides.		
		Implement follow-up clearing after floods to prevent coppicing and thickening.		
Biodiversity – Aquatic ecosystems	Riparian and aquatic habitat disturbance, loss of fauna	Incorporate preventative measures, such as access restriction cages, around offtake pumps to prevent kills of ichthyofauna or semi-aquatic species such as otters or waterfowl.	Resident Engineer, Contractor, NamWater's ECO	Pre-construction
		Establish a 50 m buffer from riparian edges for all non-essential activities.		
		Restrict in-channel works to the dry season and maintain baseflow connectivity.		
		Direct stormwater runoff from access roads and all construction areas to buffer zones before reaching rivers and streams.		
		Provide drip trays for all construction vehicles and spill kits should be made readily available to reduce potential for hydrocarbon mobilisation into surface water courses.		Throughout construction
		Restore streambed substrate and banks to pre-disturbance condition after works.		

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
		Establish and undertake aquatic biomonitoring to monitor construction phase impact on the receiving environment.		
Air Quality				
Air quality	Dust from construction activities and vehicle movement	Implement regular dust control or dust suppression measures for roads and work areas.	Contractor, NamWater's ECO	Throughout construction
		Reduce speed limits, truck weights and the number of vehicles using unpaved roads and surfaces as far as practicable.		
		Minimise surface areas of stockpiled material (i.e. avoid sharp edges) to reduce the surface area exposed to wind erosion.		
Noise				
No mitigations required				
Land Use and Land Capability				
No mitigations required.				
Visual				
Visual aesthetics management	Generation of negative visual views	Restrict vegetation clearing to the minimum area required and undertake progressive rehabilitation at the earliest opportunity.	Contractor, NamWater's ECO	Throughout construction
		Maintain a clean and orderly construction site through regular removal of rubble and waste materials.		
		Ensure surface infrastructure remains within approved footprint sizes and heights.		
		Direct lights downwards and away from habitats to reduce light pollution.		
		Implement progressive rehabilitation of disturbed areas.		
Archaeology and Cultural Environment				
Heritage Resource Management	Damage to / loss of heritage sites	Develop a Cultural Heritage Management Plan, drawn directly from the Cultural Heritage Specialist Report, demarcating buffer zones and “no-go” zones for existing/known heritage resources.	Contractor, NamWater's ECO, Archaeologist	Pre-construction
		Demarcate all heritage sites as “No go” zones on site maps and physically demarcate with visible flagging and fencing.		

Aspect	Project phase potential impacts	Management action	Responsibility	Timeframe
		Features requiring signage and demarcation include QRS 10/4, 10/3, 10/1, 10/2, 249/132, 249/133) which are closely associated with abstraction works and the pipeline route		
		Implement the Chance-Find Procedure for all ground-breaking activities. Train all contractors and employees in the Chance Find Procedure for chance find or unrecorded discoveries		Throughout construction
Socio-Economic				
Social and Economic Performance	Employment opportunities	Develop local procurement and retention policies.	Contractor	Prior to construction
	Economic benefit to national (GDP) and local economies	Source goods and services locally (e.g. contractors, accommodation, equipment and perishable goods) during construction, wherever practicable.		
	Social pathologies	Develop an employee and contractor code of conduct, inclusive of behaviour, substance abuse, harassment and transactional sexual relationships, and provide training thereof.		
		Develop and maintain a community level grievance mechanism and act on reported grievances.	Environmental Manager, Contractor	Throughout construction

4.1.2 Operation Phase

The measures below should be undertaken throughout the operational phase.

Table 4-2: Operational Phase EMP

Aspect	Operational phase impacts	Management action	Responsibility
Administrative			
Legal / Permitting	Non-compliance with licences	Maintain valid Water Abstraction Licence and ECC.	Operations Manager: BUS,
		Ensuring all permits are valid and renewal applications undertaken as required.	

Aspect	Operational phase impacts	Management action	Responsibility
		Comply with all licence conditions and statutory reporting timelines.	Environmental Manager
		Review and update the EMP annually and when activities change.	
Climate			
Climate Management	Greenhouse gas (GHG) emissions and climate change	Maintain and service mechanical equipment, such as the abstraction pumps, to reduce combustion emissions and particulate matter.	Environmental Manager
		Use low sulphur diesel.	
Waste			
Waste Management	Waste Generation	Suitable receptacles with lids for waste disposal will be provided at appropriate locations on site.	Environmental Manager
		Hazardous waste (including hydrocarbon contaminated material/soil) and domestic waste will be disposed of at an appropriate waste disposal facility	
		Prohibit the burning of waste material.	
		Segregate and recycle waste to reduce disposal emissions.	
Topography			
No mitigations required.			
Soil			
Soil	Soil erosion	Conduct erosion maintenance after each rainy season.	Environmental Manager
Hazardous Materials Management	Soil contamination	Provide spill kits and ensure that personnel are trained in their use.	
		Store and handle hydrocarbons and chemicals safely to prevent soil contamination.	
		Undertake maintenance activities of vehicles or mechanical equipment on an impervious layer to prevent soil contamination.	
		Ensure all spills are cleaned up immediately and reported with records kept and dispose of contaminated soil at an appropriate hazardous waste disposal site.	
Surface Water			
Surface Water – quality		Operate surface water management facilities (berms, channels, dams, erosion protection) to prevent cross-contamination with mining waters.	Environmental Manager

Aspect	Operational phase impacts	Management action	Responsibility
	Pollution/contamination of surface water and the surrounding environment	Store hydrocarbons in bunded, impermeable areas with traps and oil-water separators; maintain tanks, pipes, and pumps; provide spill kits and ensure that staff is trained in the use; remediate spills within 24 hours.	
		Inspect and de-sludge settling basins and storage dam routinely.	
		Prohibit any sewage discharge to the environment.	
		Provide spill kits and ensure that personnel are trained in their use.	
		Implement the surface water monitoring programme.	
Surface Water – quantity	Reduced surface water availability	Implement the Water Abstraction Management Protocol which guides periodic abstraction with explicit surplus-flow thresholds and enforce strict compliance with established protocols, including immediately reporting over-abstraction activities.	Operations Manager: BUS, Environmental Manager
		Operate pumps only within approved surplus-flow windows.	
		Monitor and record rates and volumes daily and reconcile to licence limits.	
		Monitor and record flow rates upstream and downstream of abstraction works.	
		Maintain minimum bypass flows according to operating rules.	
		Stagger pump operation to avoid rapid drawdowns near the bank.	
		Monitor and record seepage flows and water quality at collection points.	
		Undertake routine maintenance and inspections of all infrastructure to reduce water losses through leakages.	
		Train and sensitise project contractors and employees on the impacts of over abstraction and enforce strict compliance with established protocols.	
		Participate in Orange River water user forums and implement feedback.	Environmental Manager
Biodiversity			
Terrestrial Biodiversity and Habitat Management	Habitat loss, injuries or fatalities of terrestrial biodiversity	Enforce zero-tolerance rule for poaching and illegal resource collection.	Operations Manager: BUS, Environmental Manager
		Prevent bird collisions with powerlines using deterrents (spiral markers, flappers, LED devices).	
		Remove, eradicate Alien Invasive Plants	

Aspect	Operational phase impacts	Management action	Responsibility
Biodiversity – aquatic ecosystems		Prohibit herbicide/pesticide use near the river.	
		Monitor offtake equipment and restrictive caging/meshes for damage and replace where necessary to prevent ichthyofauna or semi-aquatic species from access to offtakes.	
Air Quality			
Air quality	Dust from operational/maintenance activities and vehicle movement	Enforce speed limits on all site roads.	Environmental Manager
		Maintain vehicles and equipment according to manufacturer schedules.	
Noise			
Noise	Increase in ambient noise levels affecting sensitive receptors	Maintain equipment and fit mufflers or silencers where practicable	Environmental Manager
		Provide hearing protection and monitor occupational exposure.	
		Implement acoustic mitigation measures at noise sources exceeding 85 dBA.	
		Schedule noise intensive maintenance during daytime hours.	
		Provide PPE and respond to noise complaints promptly.	
Land Use and Land Capability			
No mitigations required.			
Visual			
No mitigations available			
Archaeology and Cultural Environment			
Heritage Resources Management	Damage to / loss of heritage sites	Maintain buffer zones, “no go” zones and all demarcations around all identified features.	Environmental Manager
	Chance finds during maintenance	Maintain the Chance-Find Procedure and report any new finds to NHC.	
Socio-Economic			
Social Performance	Social pathologies	Maintain a community level grievance mechanism and act on reported grievances.	Environmental Manager

Aspect	Operational phase impacts	Management action	Responsibility
	Local employment	Prioritise the employment of local personnel in line with the local employment and retention policies.	General Manager
	Education, training and skills development	Facilitate further capacity development of personnel to ensure that skills are further developed to improve retention or remobilization of employees.	
	Water abstraction influencing downstream users	Participate in Orange River water user forums and implement feedback.	Environmental Manager
		Develop and maintain grievance mechanism for downstream users to raise grievances related to abstraction.	
		Install flow rate monitors upstream and immediately downstream of the abstraction point, as well as downstream in Noordoewer to monitor changes in flow as a result of abstraction.	
		Establish an accessible data platform allowing downstream users to access flow rate monitoring data.	

4.1.3 Rehabilitation, Decommissioning and Closure

As decommissioning is currently unclear, this phase has been included in the impact assessment and mitigation measures for the currently identified impacts are included below. An updated EIA and EMP will be developed once further decisions on the decommissioning of infrastructure have been concluded.

Table 4-3: Rehabilitation, Decommissioning and Closure Phase EMP

Aspect	Decommissioning phase impacts	Management action	Responsibility	Timeframe
Administrative				
Closure Plan	Legal compliance	Prepare a Decommissioning and Closure Plan covering assets, final land use, design options, rehabilitation, monitoring and costs.	Environmental Manager	Prior to closure
		Establish strict procedures for draining, dismantling and cleaning all equipment, using impermeable work areas equipped with retention facilities.		
		Secure financial provision and obtain necessary permits and approvals.		
		Consult stakeholders on closure schedule, risks and post-use options.		

Aspect	Decommissioning phase impacts	Management action	Responsibility	Timeframe
		Notify MEFT, MAFWLR, ORASECOM, other relevant stakeholders and landowners of closure timelines.		
		Update or surrender licences according to requirements.		
		Maintain the grievance mechanism through closure.		Pre-closure and ongoing
	Infrastructure Opportunities	Investigate opportunities for retaining infrastructure in place of decommissioning.		Prior to closure
		Assess the opportunity to retain subterranean infrastructure (pipelines) within the ground.		
Climate				
Climate Management	Generation of GHGs	Revegetate footprint areas with local vegetation.	Environmental Manager	Rehabilitation
		Undertake erosion and rehabilitation monitoring.		Rehabilitation, decommissioning and closure
		Maintain vehicles and equipment according to manufacturer schedules.		
		Prohibit unnecessary idling and enforce idling limits.		
		Use low-sulphur diesel where available.		
		Prohibit the burning of waste material.		
Waste				
Waste Management	Waste Generation	Suitable receptacles with lids for waste disposal will be provided at appropriate locations on site.	Environmental Manager	Decommissioning and closure
		Hazardous waste (including hydrocarbon contaminated material/soil) and domestic waste must be disposed of at an appropriate waste disposal facility.		
		Prohibit the burning of waste material.		
		Segregate and recycle waste to reduce disposal emissions.		
Topography				

Aspect	Decommissioning phase impacts	Management action	Responsibility	Timeframe
Topography and Drainage Management	Drainage alteration and erosion	Maintain natural drainage patterns where practicable.	Environmental Manager	Rehabilitation
Soil				
Soil Management	Soil rehabilitation	Rip compacted areas and apply a 150-millimetre (mm) layer of topsoil recovered from topsoil stockpiles for rehabilitation and revegetation of the disturbed footprint area.	Environmental Manager	Rehabilitation
	Soil contamination	Store and handle hydrocarbons and chemicals safely to prevent soil contamination.		Decommissioning and rehabilitation
		Avoid mixing topsoil and subsoil.		
Surface Water				
Surface Water Management	Watercourse rehabilitation	Preserve and maintain permanently the vegetated buffer zones along all watercourses.	Environmental Manager	Decommissioning, rehabilitation and closure
		Reshape the land to eliminate steep slopes and create stable terrain that is suitable for natural drainage without erosion.		
		Monitor restoration of water levels within the Orange River post-decommissioning of abstraction points.		
	Pollution and contamination of surface water and the surrounding environment	Use drip trays for all refuelling and decommissioning near watercourses.		
		Prohibit equipment washing within the Orange River and tributaries.		
		Provide serviced ablutions and remove wastewater to approved facilities.		
		If a spillage occurs, clean it up immediately and dispose of contaminated soil at an appropriate hazardous waste disposal site.		
		Implement monitoring to determine decommissioning impacts on the receiving Orange River.		
Biodiversity				

Aspect	Decommissioning phase impacts	Management action	Responsibility	Timeframe
Biodiversity – Terrestrial and Aquatic	Habitat loss, injuries or fatalities of terrestrial biodiversity	Monitor the proliferation of alien invasive vegetation	Environmental Manager	Rehabilitation, decommissioning and post-closure
		Prohibit the destruction or death of any flora and fauna, report any deaths as incident reports.		
	Habitat restoration	Implement the Rehabilitation Plan and undertake rehabilitation using local flora, undertake progressive monitoring of rehabilitation efforts.		
Air Quality				
Air Quality Management	Dust from decommissioning activities and vehicle movement	Manage wind erosion through the successful rehabilitation of exposed surfaces to reduce or prevent dust generation.	Environmental Manager	Rehabilitation, decommissioning and post-closure
		Restrict demolition activities requiring blasting to typical daytime hours only.		
		Vegetate capped areas to reduce the potential for wind-blown dust.		
Noise				
Noise	Increase in ambient noise levels affecting sensitive receptors	Restrict demolition activities requiring blasting to typical daytime hours only.	Environmental Manager	Rehabilitation, decommissioning and post-closure
		Maintain all vehicles and machinery used during rehabilitation and decommissioning activities.		
Land Use and Land Capability				
Land Use	Obtaining final land use	Undertake rehabilitation activities in line with desired final land use as determined by the Closure Plan and Rehabilitation Action Plan.	Environmental Manager	Rehabilitation, decommissioning and post-closure
Visual				
Visual aesthetics management	Visual aesthetics restoration	Undertake rehabilitation activities in line with desired final land use as determined by the Closure Plan and Rehabilitation Action Plan.	Environmental Manager	Rehabilitation, decommissioning and post-closure

Aspect	Decommissioning phase impacts	Management action	Responsibility	Timeframe
Archaeology and Cultural Environment				
Heritage Resource Management	Maintenance and preservation of heritage resources	Maintain all protective infrastructure and demarcations for all identified archaeological sites.	Environmental Manager	Rehabilitation, decommissioning and post-closure
	Damage to / loss of heritage resources	Maintain the Chance-Find Procedure for all excavation and demolition activities.		
		Arrange archaeologist call-out for subsurface works as needed.		
		Report any finds to the NHC and follow directives.		
Socio-Economic				
Closure and decommissioning activities	Loss of employment	Assess opportunities to mobilise personnel to other NamWater facilities	General Manager	Prior to closure
	Revenue to NamWater	Assess opportunities to incorporate the abstraction facilities into other NamWater operations, such as the proposed Noordoewer Dam.		
	Cessation of water abstraction improving accessible water quantities for downstream users	Participate in Orange River water user forums, inform the relevant stakeholders of the cessation of abstraction and implement feedback.	Environmental Manager	

4.2 Procedures, Plans, Protocols and Mechanisms

4.2.1 Management Plans and Protocols

NamWater will need to implement the following plans and protocols for the successful impact management of the Project.

- **Spill Prevention and Emergency Response Plan:** To prevent, contain and remediate fuel/chemical spills that could contaminate soil, surface water and groundwater, especially near watercourses. A conceptual plan is provided within Section 4.2.5.
- **Grievance mechanism:** To capture, investigate and resolve community and worker complaints promptly, providing early warning of impacts and demonstrating accountability. The Grievance Mechanism is provided within Section 4.2.6.
- **Cultural Heritage Chance Finds Procedure:** To identify and record any additional findings throughout the life of the project. The chance finds procedure is presented within Section 4.2.7.

4.2.2 Training and Awareness Programme

Conduct site induction and awareness training for all contractors and employees. The induction training should be inclusive of the following:

- The contents of the EIA and EMP
- The importance of cultural heritage, their sensitivity, avoidance of no-go zones, the Chance Find Procedure and the management procedures herein
- Spill management and protocols/procedures
- Wildlife conservation and species of conservation importance with established protocols
- Risks of erosion and procedure for reporting incidences
- Alien species management requirements and reporting of colonisation/proliferation.
- The impacts of contamination on groundwater and surface water resources and mitigation measures to prevent contamination
- The impacts of over abstraction from the Orange River.

4.2.3 Incident Reporting

An incident reporting programme should be implemented that records all noncompliance's with the EMP as well as other relevant incidences that may be of material value. The following aspects are key to include in the incidence reporting mechanism under this EMP:

- Non-compliances with the contents of the EMP
- Spills (hydrocarbons, hazardous chemicals, etc), remediation measures and outcome
- Fauna: Loss, injury, death, relocation
- Flora: Relocation, damage, destruction
- Water: Spillages, leakages or over-abstraction events

4.2.4 Monitoring Programme

Monitoring requirements for successful implementation of this EMP and for obtaining legal compliance is presented within Table 4-4. The monitoring described below is appropriately aligned to requirements of the Haib Copper Mine throughout construction and operational phases.

Table 4-4: Monitoring Requirements

Aspect / Type	Monitoring Parameter	Monitoring Method / Description	Frequency
Stormwater and Soil Erosion	Erosion of rehabilitated slopes	Visual inspections for formation of gullies, soil loss, and removal of vegetation.	Monthly during concurrent rehabilitation and decommissioning
	Storage dam leakage	Inspection of drainage pathways and erosion control measures.	
Rehabilitation	Vegetation establishment	Visual and photographic assessment of planted vegetation on rehabilitated slopes.	Monthly
	Vegetation cover	Assessment of vegetative cover on rehabilitated areas.	Annual inspection during seasonal period of peak biomass
Biodiversity – Terrestrial	Alien invasive plant species	Inspection for the presence and spread of alien invasive plant within project footprint.	Monthly, Annual inspection during seasonal period of peak biomass
	Wildlife mortality	Recording of any wildlife mortality incidents.	Monthly, or as incidents occur
Biodiversity – Aquatic Ecosystems	Community Assemblages – Aquatic Biomonitoring	Monitor aquatic biodiversity for alterations in community assemblages.	Bi-annually for construction period
Heritage Resources	Heritage site buffers and demarcation	Visual inspection to ensure no-go areas are maintained and demarcations remain visible.	Monthly
Surface water	Surface water quality parameters	Sampling and analysis against the Namibian Drinking Water Quality Guidelines (Ministry of Agriculture, Water and Land Reform, 2023), including the below parameters.	Quarterly

Aspect / Type	Monitoring Parameter	Monitoring Method / Description			Frequency
		Parameter	Ideal Drinking Water Quality	Acceptable Drinking Water Quality	
		pH	6 – 8.5	6 – 9	
		EC (mS/m)	80	300	
		Turbidity (NTU)	0.5	2	
		TDS (mg/l)	1 000	2 000	
		Total Hardness (mg/l)	400	1 000	
		Cl ⁻ (mg/l)	100	300	
		F ⁻ (mg/l)	0.7	1.5	
		SO ₄ ²⁻ (mg/l)	100	300	
		NO ₃ ⁻ (mg/l)	6	11	
		NO ₂ ⁻ (mg/l)	0.1	0.15	
		NH ₃ (mg/l)	0.3	0.5	
		PO ₄ ³⁻ (mg/l)	25	100	
		Na (mg/l)	100	300	
		K (mg/l)	25	100	
		Mg (mg/l)	30	70	
		Ca (mg/l)	80	150	
	Surface water quantity	Monitoring flows, depth at abstraction and abstraction volumes from the Orange River			Daily

Aspect / Type	Monitoring Parameter	Monitoring Method / Description	Frequency
		Monitoring flow rates at Blouputs station	
Groundwater Quality and Levels	Groundwater infiltration	Monitor borehole network for signs of alterations in groundwater levels.	Monthly
	Monitoring borehole network coverage	Monitoring of boreholes within proposed Project area, particularly those associated with the proposed dam as well as along the Orange River to monitor subterranean flow close to the river.	Initiate pre-construction, then quarterly throughout abstraction
Environmental Management Plan (EMP)	EMP implementation and compliance	Monitoring of EMP implementation	Ongoing
	Bi-annual review	Compilation and submission of bi-annual environmental monitoring reports to the Office of the Environmental Commissioner.	Bi-annual, as per ECC requirements
	Management review	Formal review of environmental performance and EMP effectiveness.	As part of EMS management review

4.2.5 Spill Prevention and Emergency Response Plan

A preliminary / conceptual spill prevention and emergency response plan is provided below. NamWater will need to update the below with any additional site specific information required for site personnel and contractors.

4.2.5.1 Scope

The procedure covers the actions to be taken immediately upon discovery of a hydrocarbon spill, from first response and protection of the Orange River intake, through to containment, recovery, notification and waste management.

4.2.5.2 Compliance

The procedure is intended to ensure compliance with applicable Namibian legislation and permit conditions, including the Environmental Management Act (No. 7 of 2007) and water protection requirements as administered by MEFT and MAWLR. Significant spills and any discharge to the Orange River must be reported without delay to the competent authorities. Only approved absorbents are to be used; detergents or dispersants are not permitted. All contaminated media must be managed as hazardous waste by licensed contractors.

4.2.5.3 Responsibility

- Construction Foreman (Contractor): To secure the site, cease nearby works, isolate ignition sources, and advise management timeously.
- Construction Superintendent (Contractor): To determine a safe working boundary, decide on temporary abstraction shutdown, and request inspection/support.
- Environmental Control Officer / Environmental Manager (NamWater): To inspect, classify spill, direct containment and recovery, coordinate notifications, and arrange waste disposal and remediation.

4.2.5.4 Procedure

Upon identification of a hydrocarbon spill, personnel need to undertake the following actions:

- If operating machinery or equipment stop work; stop fuel transfer and hit emergency stop where provided.
- Identify the area with flag tape; keep untrained persons out; eliminate ignition sources.
- Protect water first: cover nearby drains; place oil-only absorbent socks/booms to divert flow away from channels and the riverbank/intake.
- Contain at source using absorbent socks/soil; upright/plug leaking containers; place small leaking containers in an overpack.
- Determine GPS position if possible and report product, estimated volume and location to the foreman.
- Actions by foreman:
 - Cease any works in the immediate vicinity; suspend abstraction if there is potential risk to the intake.
 - Confirm deployment of spill kit(s) and request additional resources if required.
 - Report findings, site location and actions taken to the superintendent.
- Actions by superintendent:

- Visit the site and determine whether work can proceed without risk to water resources; determine and mark an exclusion boundary.
- Direct additional containment/recovery on land and, if on-water sheen is present, instruct deployment of oil-only river booms in a U or V configuration upstream of the intake and downstream of the release; anchor to banks; recover free product with pads; do not use detergents or high-pressure water.
- Request inspection and support from the Environmental Control Officer / Environmental Manager; initiate notifications as per contacts below.
- Actions by Environmental Control Officer / Environmental Manager:
 - Inspect site, confirm spill tier and addition to incident register/GIS; verify that drains and the intake are protected; advise on shutdown and restart criteria (no visible sheen at intake).
 - Advise and liaise with MEFT Regional Office and MAWLR Department of Water Affairs for Tier 2 – 3 spills or any entry to water; liaise with Police/Fire if required.
 - Arrange recovery, packaging and labelling of contaminated media for collection by a licensed hazardous waste contractor; oversee remediation of any impacted soil.
 - Close out incident with root-cause corrective actions and restocking of spill kits.

4.2.5.5 Emergency Contacts

The list below provides contact details for emergency contacts, however this list must be further updated based on appointments by NamWater.

- General emergency (Namibia, mobile): 112
- Ambulance (if subscribed): E-Med Rescue 24 Namibia – 081 924
- Namibian Police – Noordoewer Police Station – 063 297 132
- Fire/Rescue – Karasburg Town Council Emergency Contact – 063 271 100
- Nearest health facilities:
 - Noordoewer Clinic – 063 297 109
 - Karasburg District Hospital – 063 270 167
- Environmental reporting:
 - MEFT Regional Office (Keetmanshoop) – 063 221 077
 - MAWLR Department of Water Affairs – 061 208 7604
- Licensed hazardous waste/spill response contractor (24/7, pre-contracted): To be included once NamWater has appointed a contractor.

4.2.6 Grievance Redress Mechanism

The conceptual grievance procedure for the NamWater Project compiled below is based on the grievance procedure provided by NamWater.

4.2.6.1 Introduction

The impacts (both positive and negative) of the proposed water abstraction, supply and storage development can potentially affect the lives of surrounding communities, thus giving rise to grievances. These potential grievances may relate to any aspect of the project. They might be felt and expressed by a variety of parties including individuals, groups, communities, entities, or other parties affected or likely to be affected by the social or environmental impacts of the project.

With this in mind, and in following international best practices trends, the Proponent (in this case the NamWater) is required to establish suitable mechanisms, resources, personnel and budget to manage Project-related grievances, via a Grievance Management Procedure.

4.2.6.2 Notification

Directly and indirectly affected communities will be notified of the Grievance Management Procedure. Notification of the Grievance Management Procedure will take place at all information sharing meetings.

4.2.6.3 Key Elements

The key elements of the Grievance Management Procedure are the following:

- An agreed and disclosed grievance submission and response procedure
- Clear rules, performance criteria and lines of accountability
- A hierarchy of response and resolution
- Fair, objective and consistent application of the Grievance Management Procedure
- The mechanism ensures that women, vulnerable groups or minorities are considered, and privacy is ensured.

4.2.6.4 Responsibilities

- Contractor (construction) / Scheme Superintendent (O&M): Receive, register, and screen grievances; initiate local action or referral.
- Project Manager: Take appropriate local action to resolve grievances and ensure implementation of corrective measures.
- Head Office Line Manager: Decide on referred cases and determine further referral where necessary.

4.2.6.5 Procedure

- Receive and register
 - The Contractor (construction) or Scheme Superintendent (O&M) receives the grievance, assigns a case number, records the date, and files the form.
- Screen and assess
 - The receiving party screens the grievance to determine scope, urgency, and whether it can be resolved locally or requires referral.
- Act to resolve locally
 - If resolvable at site level, the Project Manager takes appropriate action. Outcomes are recorded.
- Refer to Head Office
 - If not resolvable locally, refer to Head Office. The Line Manager reviews and decides on resolution pathway or further referral (as appropriate).
- Reject complaint (where applicable)
 - If outside project scope or manifestly unfounded, the complaint may be rejected with written reasons and guidance on available recourse.
- Communicate decision and close-out
 - The decision (resolution, referral, or rejection) is communicated to the complainant. Corrective actions, responsibilities, and timelines are documented. The case is closed when actions are complete and acknowledged.

4.2.6.6 Organisation

The grievance management structure and procedure might be organised as follows:

- It is recommended that the Grievance Management Office adopts a monthly turn-over rate for complaints in which receipt of the complaint/suggestion will be acknowledged within 15 days and issues will be resolved within 30 days.
- Where required, the Grievance Management Officer needs to be available to visit the site within short notice to address grievances that are more urgent and/or pressing in nature.
- Verbal submissions may be made to the traditional authorities first, but the grievance must then be directed to the Grievance Management Officer, whom will record the grievance on a Grievance Report Form that includes the following information:
 - Case number
 - Date the complaint was reported
 - Complainant's name and contact details
 - Nature of the complaint
 - Department designated to investigate and resolve complaint
 - Follow-up action / corrective action
 - The final outcome
 - Any information on the case closure, including the date
- A register of grievances is to be maintained by the Grievance Management Officer
- Where possible, grievances will be addressed directly by NamWater. If wider consultation is necessary, grievances will be forwarded to a third party. This third party should be neutral, well-respected, and agreed upon by both NamWater and the affected parties. These may include public defenders, legal advisors, legal Non-Governmental Organisations (NGOs), or university personnel. In cases where further arbitration is necessary, appropriate government involvement will be requested.
- As a last resort, aggrieved parties have a right to take legal action.

4.2.6.7 Records

The record of grievances will be held electronically and in hard copy in NamWater's offices. This will be available for scrutiny by interested and affected parties. The record will reflect the following based on the Grievance Registration Form:

- Case No.
- Date
- Name of complainant
- Cell number
- Email address
- Details of grievance (date, location, persons involved, frequency of occurrence, effects, etc.)
- Name of person recording grievance
- Cell number (recorder)
- Proposed date of response
- Signature of recording person
- Signature of complainant
- Date of redress/closure.

4.2.6.8 Monitoring and reporting

NamWater management will monitor grievances routinely as part of the broader management of the project. This means that there must be good record keeping of complaints raised throughout the life of the project.

4.2.7 Archaeological Chance Find Procedure

A conceptual chance find procedure for cultural heritage resources is provided.

4.2.7.1 Scope

The “chance finds” procedure covers the actions to be taken immediately upon the discovery of a heritage site or item (such as stone tools, human remains, historical wartime artefacts, etc.), to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

4.2.7.2 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 objectmust 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.

4.2.7.3 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, advise management, and recover remains.

4.2.7.4 Procedure

- Actions by person identifying archaeological or heritage material:
 - If operating machinery or equipment stop work
 - Identify the site with flag tape
 - Determine GPS position if possible
 - Report findings to foreman.
- Actions by foreman:
 - Report findings, site location and actions taken to superintendent
 - Cease any works in immediate vicinity.
- Actions by superintendent:
 - Visit site and determine whether work can proceed without damage to findings
 - Determine and mark exclusion boundary
 - Site location and details to be added to project GIS for field confirmation by archaeologist.
- Actions by archaeologist:
 - Inspect site and confirm addition to project GIS
 - Advise NHC and request written permission to remove findings from work area
 - Recovery, packaging and labelling of findings for transfer to National Museum
- In the event of discovering human remains:
 - Actions as above

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- Field inspection by archaeologist to confirm that remains are human
- Advise and liaise with NHC and Police
- Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.

Monitoring and reporting should include the following:

- Monitor compliance with this EMP and record any chance finds or incidences related to heritage features through incident reporting.
- Report findings and compliance updates to the National Heritage Council (NHC) every six months.

5.0 CONCLUSION

This Environmental Management Plan was developed for NamWater as part of the application for ECC for the proposed water abstraction, supply and storage activities to support the Haib Copper Project in Southern Namibia.

Successful implementation depends on sustained leadership commitment, adequate resourcing, competency-based training, and disciplined execution through the site Environmental Management System. Routine monitoring, audits, and transparent reporting will verify performance and trigger timely corrective actions where required. Ongoing engagement with regulators, neighbouring land users and communities, and the maintenance of an accessible grievance mechanism, will support accountability and continuous improvement.

With approval of the ECC by MEFT and MAFWLR and adoption of this EMP, NamWater can proceed with activities in a manner that minimises environmental harm, protects people and biodiversity, and supports a responsible socio-economic development.

6.0 CERTIFICATION

This report was prepared and reviewed by the undersigned.

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