

Sand Mining Environmental Management Plan

Fish River at
Mariental, Hardap Region,
Namibia



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Environmental Management Plan (EMP)

1. Introduction

This Environmental Management Plan (EMP) has been drafted as part of the Scoping Report which was compiled in terms of the Environmental Assessment for the sand mining activities conducted by Kachas Industrial t/a Supersand. The content thereof has been tailored according to the Regulations of the Environmental Management Act, 2007 (Act No 7 of 2007) Regulation No 30 of 2011 listing No 8(j) (aa) (bb) (cc). The aim thereof is to provide management measures to address the effects on the environment that have been identified in the Scoping Report.

2. Roles and Responsibilities Concerning the Implementation of the EMP

The roles and responsibilities of all parties involved in effectively managing the environment are set out below:

Environmental Coordinator

The Environmental Coordinator (EC) will inspect operational areas on a three monthly basis and at the onset of mining any new island, to ensure that all specifications are met. The duties of the environmental coordinator will be the following:

- Advise the operations team in respect of implementation of the environmental specifications,
- Conduct visits to ensure all work is aligned to the EMP,
- The environmental coordinator shall inspect the site during the three monthly visits. All rehabilitation results will be included in the quarterly report,
- Conduct inspections of the rehabilitation area and give guidance regarding rehabilitation measures if any.

The Operations Manager

The duties of the Operations Manager (OM) or his nominated authority are as follows:

- Familiarize themselves with the requirements of the EMP,
- Monitor employees' and contractors' compliance with the environmental specifications and enforce adherence,
- Communicate all environment related incidents with the environmental coordinator and distribute internally to avoid repeats,
- Maintain a record of activities relevant to environmental management,
- The Operations Manager shall be responsible for monitoring and the enforcement of the environmental management specifications on a day-to-day basis. Any violation of

the environmental specifications shall be recorded and the agreed on disciplinary measures taken.

Senior personnel and contractors

The duties of the senior personnel/contractors are as follows:

- Familiarize themselves with the requirements of the EMP,
- Comply with the environmental management specifications,
- Ensure that all team members are familiar with the environmental management specifications.

3. Environmental Management Requirements

The following are management actions that should be adhered to by the proponent, Supersand, at all times. These management actions cover the operational and decommissioning phases of sand mining. All activities should be carried out in line with this Environmental Management Plan (EMP), as may be applicable to the specific phase and activities carried out.

This section of the EMP details the various management processes, from where the operations are currently to its end, concerning the effective management of all operational areas. Please refer to Appendix D (of the Scoping Report) for legislative and permit requirements considered during this EMP. The EMP is laid out as follows:

- Planning and Design;
- Operations Contract Preparation Management Requirements; and
- Operations Mitigation Requirements

Table 1: Legislation Framework and related contact person

THEME	LEGISLATION INSTRUMENT	MANAGEMENT REQUIREMENTS	CONTACT PERSON
Archaeology	National Heritage Act 27 of 2004	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before they may be relocated.	Rev Salomon April Tel: 061-244 375 / 385/594
Environmental	Environmental Management Act 7 of 2007 EIA Regulations (EIAR) GN 57/2007 (GG 3812)	The amendment, transfer or renewal of the Environmental Clearance three years thereafter	Dr Freddy Sikabongo/ Ms Saima Angula Tel: 061-284 2751

THEME	LEGISLATION INSTRUMENT	MANAGEMENT REQUIREMENTS	CONTACT PERSON
Forestry	Forest Act 12 of 2001 Nature Conservation Ordinance 4 of 1975	Trees, shrubs and bushes within 100 m from a watercourse may not be cut, destroyed or removed without a permit. A Harvesting Permit is required if wood is to be collected (harvested) for use as fuel.	Mr Ambuga Tel: 061-265450
Labour	Labour Act 11 of 2007 Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).	Adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.	Labour Law Advice: Tel: 061-309 957
Water	Water Resources Management Act 13 of 2013	Water licences are required for water abstraction, use as well as river diversions	Elize Mbandeka Tel: 061-208 7141

3.1 Planning and Design Phase

This phase contains elements that should have been considered during the planning and design phase of the mining right holder, Supersand. However, as the operational phase already commenced, these measures herein pertain to every new sand island which may be embarked on. It is further suggested that the measures below be phased in into any current operations. These management requirements are important to ensure that safe managing of the environment is planned and for the sand mining activities which are proposed.

Table 2: Management requirements for the Planning and Design phase

ASPECT	MANAGEMENT REQUIREMENT
EMP IMPLEMENTATION	<ul style="list-style-type: none"> Develop an effective strategy to accurately carry out the mitigation actions relevant to the sand mining activities in this environment Establish an applicable internal disciplinary system for non-compliance
FINANCIAL PROVISIONS	<ul style="list-style-type: none"> Allocate appropriate budgetary allowances to develop proper sand mining planning and environmental rehabilitation actions through the compulsory development of plans and strategies to mitigate negative environmental and social impacts
RECRUITMENT	<p>For all new employees:</p> <ul style="list-style-type: none"> Adhere to the legal provisions for the recruitment of labour (target

ASPECT	MANAGEMENT REQUIREMENT
	<p>percentages for gender balance, optimal use of local labour and SME's, etc.) in the contract aiming for a 15% representation of women</p> <ul style="list-style-type: none"> • The recruitment process must be formal and organised • Preference should be given to recruit those who live within the project area and are fit to work
STAKEHOLDER COMMUNICATION	<ul style="list-style-type: none"> • Communicate planned activities with stakeholders through established community communication channels
HEALTH AND SAFETY	<ul style="list-style-type: none"> • Adhere to all legal requirements pertaining to health and safety; and • Compile health and safety plan (See Section B)

3.2 Sand mining Contract Preparation Management

This phase contains elements that should be considered whenever sand mining activities are contracted or sub-contracted to a company other than the holder of the mining right. It is further applicable to any related contract work which may be employed by Supersand as well as pertaining to the proponent themselves. These management requirements are important to ensure that safe managing of the environment takes place while sand mining activities are ongoing.

Table 3: Sand mining contract and operational preparation management requirements

ASPECT	MANAGEMENT REQUIREMENTS
EMP IMPLEMENTATION	<ul style="list-style-type: none"> • Relevant sections of this EMP should be included in the tender documents for all development so that tenderers can make provision for implementation of the EMP
FINANCIAL PROVISION	<ul style="list-style-type: none"> • Financial provision for the compilation of a Waste Management Plan should be included as a cost item within tenders concerning sand mining operations • Financial provision for the facilitation of an induction programme for senior and casual sand mining personnel as well as subcontractors and associated personnel should be included as a cost item within tenders concerning all sand mining activities • Financial provision for the compilation of a Vegetation Management Plan should be included as a cost item within sand mining tender documents • Financial provision for the drafting of a Communication Plan should be included as a cost item within sand mining tender documents
RECRUITMENT	<p>For all new employees;</p> <ul style="list-style-type: none"> • Provisions designed to maximise the use of local labour should be included within tenders concerning sand mining operations • A provision stating that all unskilled labour should be sourced from the area should be included within tenders concerning sand

ASPECT	MANAGEMENT REQUIREMENTS
	mining operations <ul style="list-style-type: none"> • Specific recruitment procedures ensuring local firms enjoy preference during tender adjudication should be included within tenders concerning sand mining operations

3.3 Sand mining Mitigation Details

The following table provides a large-scale overview of all the major environmental management themes pertaining to both generic and site-specific sand mining mitigation details. This table serves to act as quick reference (by colour), for the detailed mitigation details that follow below. The identified impacts in the Scoping Study are mitigated under these themes. In light of current operations and the fact that various additional management and mitigation measures may be provided, (once an integrated report has been compiled with all of the specialist recommendations), this EMP should be amended to reflect an integrated approach to the management of activities. These measures are therefore proposed as a minimum to be conducted for 3 years during which time the compilation of a operation specific plan may be drafted for Sand Mining in the Fish River.

Table 4: Generic and site-specific environmental management actions for sand mining phases

THEME	OBJECTIVE	MITIGATION DETAIL	
		GENERIC	SITE-SPECIFIC
Waste management	Avoid and where not possible minimise all pollution associated with sand mining	Section A	Section A
Health and safety	Safeguard health and safety of staff and the general public	Section B	Section B
Dust and noise	Avoid and where not possible minimise dust and noise associated with sand mining activities	Section C	Section C
Environmental training and awareness	Awareness creation regarding the provisions of the EMP as well as the importance of safeguarding environmental resources	Section D	N/A
Environmental conservation	Minimise sand mining activity footprint and safeguard biodiversity in ecologically sensitive areas	Section E	Section E
Employment/ Recruitment	Minimise negative conflict through legal and fair recruitment practices	Section F	Section F
Stakeholder communication	Provide a platform for stakeholders to raise grievances and receive feedback and hence minimise negative conflict	Section G	Section G
Social and Cultural Heritage	Ensure due consideration is given to matters regarding the cultural and general wellbeing of the affected community and matters incidental thereto	Section H	N/A

SECTION A: WASTE MANAGEMENT

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION DETAILS	
Waste Management Plan	The Proponent should compile a Waste Management Plan that should address as a minimum the mitigation measures included below
Hazardous waste	<ul style="list-style-type: none"> • All sand mining vehicles (4x4 vehicles and trucks) and equipment on site, should be provided with a drip tray/oil spill kit: <ul style="list-style-type: none"> ○ Drip trays and sealable containers are to be transported with vehicles wherever they go ○ Drip trays should be cleaned daily and spillage handled, stored and disposed of as hazardous waste • All sand mining machines and trucks should be maintained regularly to prevent oil leakages. Maintenance of vehicles is not permitted to occur on site as far as reasonably possible, but if maintenance is to be undertaken on site, measures need to be put in place to avoid hydrocarbon spillages • Maintenance and washing of sand mining machines and trucks should be conducted at a suitable site/facility which adhere to the following: <ul style="list-style-type: none"> ○ The work area/facility should be lined to be impermeable ○ The work area/facility should have an oil-water separator (oil trap) to collect any run-off from the washing and or maintenance activities, or be equipped with an oil and water separation system • Spilled oil or fuel should be treated as hazardous waste, disposed of as it occurs in the appropriate hazardous waste containers (sealable drums) on site, and removed off site at the end of each day to a secure location of site from where it should be disposed of at a appropriate hazardous waste disposal site \ as soon as possible. All such waste should be provided to specialists in the handing and treatment of such materials • All hazardous substances (e.g. fuel, grease, oil, drilling fluids etc.) or chemicals should be stored in a specific location at the sand mining off-site on an impermeable surface which is bunded
Sewage and grey water from temporary portable toilets on site	<ul style="list-style-type: none"> • Use of toilets instead of the veldt must be strictly adhered to
General waste	<ul style="list-style-type: none"> • The sand mining site should be kept tidy at all times. All domestic and general waste produced daily should be contained • No waste may be buried or burned • No waste is to be left uncontained, it should be stored in suitable containers, over night • Waste containers (bins) should be emptied regularly and removed from site to the nearest official waste disposal site. All recyclable waste needs to be taken to the nearest recycling depot if available

ASPECT	MITIGATION MEASURE
	<ul style="list-style-type: none"> • A sufficient number of separate waste containers (bins) for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such • Sand mining personnel should be sensitised to dispose of waste in a responsible manner and not to litter • No waste may remain on site after the completion of operations
SITE SPECIFIC MITIGATION	
Sewage and grey water from temporary portable toilets on site	<ul style="list-style-type: none"> • Portable toilets such as portable camping units, must be provided during sand mining (one for every 15 people) : <ul style="list-style-type: none"> ◦ At all operational sites where active mining is being conducted • Discharging of the portable units should to be conducted at an existing suitable facility
Waste rock boulders	<ul style="list-style-type: none"> • All heaps of large rocks / unusable aggregate should be removed from operational areas where active mining is being conducted
MONITORING REQUIREMENTS	
<ul style="list-style-type: none"> • Monitor whether the provisions set out in this EMP concerning waste management is being applied as per instructions • All non-compliances should be recorded and discussed at weekly site meetings and timeous remedial actions taken • All guilty parties that are in contravention of the provisions set out for managing waste should be given a penalty and according to the severity of the impact appropriate steps taken. 	

SECTION B: HEALTH AND SAFETY

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION MEASURES	
Health and Safety Plan	The Proponent should compile a Health and Safety Plan that should address as a minimum the mitigation measures included below, as well as the Regulations Pertaining to Health and Safety at the Workplace
Road Safety	<ul style="list-style-type: none"> • Demarcate roads clearly • Off-road driving should not be allowed unless roads have been approved by the affected landowner/occupant/ person or entity responsible for the road • All vehicles that transport sand and materials to and from the site must be roadworthy • Drivers that transport sand and materials should have a valid driver's license and should adhere to all traffic rules • Loads upon vehicles should be properly secured to avoid items falling off the vehicle • Drivers should not exceed a speed limit of 30km/ hour on all dirt roads
Safety around general work areas	<ul style="list-style-type: none"> • Demarcate the following areas with danger tape: <ul style="list-style-type: none"> ○ All excavation areas ○ Temporary breakdown areas • Provide additional warning signage in areas of movement and in "no personnel" areas where workers are not active • Demarcate general work area (that is the area adjacent to the actively mined area) with a suitable and visible marker • Only sand mining personnel will be allowed within these work areas • Fire extinguishers should always be available at the operational sites • Comply with all mitigation measures laid out in Section A (Waste Management mitigation details)
Ablutions	<ul style="list-style-type: none"> • Separate ablutions (toilet) should be available for men and women if required • Portable toilets (i.e. easily transportable camp toilets) should be available at every operational site where active mining is being conducted: <ul style="list-style-type: none"> ○ Sewage waste needs to be removed on a regular basis to Mariental's sewage disposal site. Alternatively, it is to be pumped into sealable containers and store until it can be removed to such sites ○ Workers responsible for cleaning the toilets should be provided with latex gloves and masks and any other related PPE
Open fires	<ul style="list-style-type: none"> • No open fires may be made anywhere on or around operational areas • No wood may be collected within or near the operational area without the required permit
General	<ul style="list-style-type: none"> • Dust protection masks should be provided to workers when working in dusty environments

ASPECT	MITIGATION MEASURE
	<ul style="list-style-type: none"> • No person should be allowed to smoke on or close to operational areas where active mining is being conducted • No workers should be allowed to drink alcohol or be under the influence of recreational drugs during work hours • No workers should be allowed on site if under the influence of alcohol or recreational drugs • Proper safety gear to be supplied to all personnel according to each one's level of risk exposure as per legal requirements • Provide at least 2 litres of fresh potable water during hot summer months) to each personnel member per day during work hours to prevent dehydration and promote productivity • Provide adequate shading accessories to personnel to prevent sunstroke • Frequent, short breaks in between work hours should be implemented
SITE SPECIFIC MITIGATION	
Road Maintenance	<ul style="list-style-type: none"> • All dirt roads used for sand transportation to be maintained by grading of the road • Collaboration with the Mariental Municipality regarding road maintenance of tar roads used for sand haulage to be reached
MONITORING REQUIREMENTS	
<ul style="list-style-type: none"> • Non-compliances should be recorded and discussed at the weekly meetings with the operations manager and coordinator and appropriate steps taken to rectify such recorded non-compliances 	

SECTION C: DUST AND NOISE

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION DETAILS	
Dust	<ul style="list-style-type: none"> • Appropriately rated and fitted dust masks should be given to personnel working in areas of dust exposure • All haul roads should be treated with a chemical surfactant • Grey water should be used for additional dust suppression on a if available and as required. When not available water abstracted from the Fish River should be conducted (as per requirements of the necessary approvals)
Noise	<ul style="list-style-type: none"> • Work hours should be restricted to between dawn and dusk where sand mining involving the use of heavy equipment, power tools, and the movement of heavy vehicles is within 500 m from sensitive receptors (such as homesteads). In the event that this is not possible, the affected community need to be consulted well in advance to agree on a mutually acceptable solution
SPECIFIC MITIGATION DETAILS	
Noise	<ul style="list-style-type: none"> • No work may be conducted on Sundays • Sand mining activities may only be conducted on public holidays with the permission of the relevant affected community • The movement of vehicles are restricted to working hours or times agreed upon between the team and affected community
MONITORING REQUIREMENTS	
<p>When complaints are received from farmers or affected communities regarding noise and dust nuisance, additional abatement in the form of water spraying and restricted work hours should be implemented. Communication with those that complained should be continued to determine whether the problem has been resolved</p>	

SECTION D: ENVIRONMENTAL TRAINING AND AWARENESS

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION DETAILS	
Environmental Induction (Training)	<p>All sand mining personnel are to undergo environmental induction (training) for both sand mining stages, which should include as a minimum the following:</p> <ul style="list-style-type: none"> • Detailed review of the current EMP to familiarize personnel with requirements • Explanation of the importance of complying with the EMP • Discussion of the potential environmental impacts of the sand mining activities • Employees' roles and responsibilities, including emergency preparedness • Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities • Explanation of the specific mitigation measures within this EMP especially unfamiliar provisions
MONITORING REQUIREMENTS	
Environmental Manager to request attendance registers be completed by all personnel attending induction training sessions	

SECTION E: ENVIRONMENTAL CONSERVATION

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION DETAILS	
Conservation of vegetation	<ul style="list-style-type: none"> The proponent should compile a Vegetation Management Plan which should include the following as a minimum: <ul style="list-style-type: none"> No trees occurring in this environment may be damaged or removed for any purpose without the required permit Protected trees need to be marked and their location recorded on a map (especially with regards to road creation)
Conservation of fauna (includes livestock)	<ul style="list-style-type: none"> Movements of staff are restricted to the operational sites and work areas only No hunting, trapping, fishing, setting of snares, or any other disturbance of any fauna species allowed without a required permit
Track / road creation	<ul style="list-style-type: none"> Do not remove trees which have been identified by a vegetation specialist for the purposes of track / road creation Access tracks and roads should not be wider than the normal width to accommodate an sand mining machines and trucks No tracks / roads must be created unless unavoidable
Rehabilitation	<ul style="list-style-type: none"> Remove all waste, and any other remains from the site Site should contoured as per desired shape (for river flow regime) Fill holes, rip up, rake track/ roads, and spread stockpiled topsoil back over the entire new track / roads made, to allow re-vegetation Make sure that the environmental coordinator has a site inspection to check rehabilitation efforts of sand island
SPECIFIC MITIGATION MEASURES	
Protection of crops and orchards	<ul style="list-style-type: none"> Buffer zones of at least 150m must be established around crops. In the event that this is not possible, the community need to be consulted well in advance to agree on mutually acceptable solution (which may include compensation)
Protection of flora	<ul style="list-style-type: none"> A vegetation specialist is to be employed to identify sensitive flora species on each island which should tie in with an integrated overall plan for the area Integrated recommendations regarding flora protection should be implemented as per the integration of a overall approach to conservation for the area.
River Ecosystem & River flow regime	<ul style="list-style-type: none"> No sand mining activities should be conducted in any tributaries of the Fish River Mining should be restricted to areas within the river itself and exclude the banks of the river Mining should be conducted systematically from one side along the length of the island. Mining and or any earth moving to be conducted in a systematic manner and in accordance with requirements of the Hydrology

ASPECT	MITIGATION MEASURE
	<p>assessment (which is to be completed as a separate study)</p> <ul style="list-style-type: none"> • No sand should be mined in areas identified to be retained for flood risk purposes • All mining should be conducted systematically in “lanes” opposed to “pocket” mining • No mining should be allowed in close proximity of the Hardap Dam wall – a buffer zone of 4km is to be maintained
General	<ul style="list-style-type: none"> • Mining activities should not impact or damage the drainage lines which run from the irrigation fields into the river. No drainage structures should be removed unless the purpose of removal is to be replaced. • Whenever sand is dumped next to the river – for later transportation – no additional soil from the holding area should be removed
MONITORING REQUIREMENTS	
<ul style="list-style-type: none"> • Monitor operational areas and all access tracks and roads. Record all negligent plant destruction sightings, and apply the penalty system to all guilty parties • Constant monitoring and record keeping of progress must be made until all rehabilitation is done, approved and signed off by the Environmental Coordinator at the decommissioning of sand mining in an area (after each island has been removed) 	

SECTION F: EMPLOYMENT/RECRUITMENT

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION DETAILS	
Legislation	Adhere to the legal provisions in the Labour Act for the recruitment of labour (target percentages for gender balance, optimal use of local labour and SME's, etc.) in the Contract.
Recruitment	<p>All new staff</p> <ul style="list-style-type: none"> • A formal recruitment process including the following provisions as a minimum should be adhered to for all new staff: <ul style="list-style-type: none"> ○ The authority (Regional Council) should assist with the recruitment process ○ Ensure that all are aware of recommended recruitment procedures and discourage any recruitment of labour outside the agreed upon process ○ Preference should be given in terms of recruitment of sub-contractors and individual labourers to those from the area ○ Clearly explain to all job-seekers the terms and conditions of their respective employment contract (e.g. period of employment etc) and make use of interpreters when necessary
SITE SPECIFIC MITIGATION	
Labour	<ul style="list-style-type: none"> • Any new employment opportunities should be filled with local employees
MONITORING REQUIREMENTS	
<ul style="list-style-type: none"> • The Operations Manager should monitor the effective implementation of the recruitment process of any new staff • Work should only continue until all requirements are met, with the submission of records 	

SECTION G: STAKEHOLDER ENGAGEMENT

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION DETAILS	
Communication plan	<ul style="list-style-type: none"> • The proponent should draft a Communication Plan, which should outline as a minimum the following: <ul style="list-style-type: none"> ○ How stakeholders, who require ongoing communication for the duration of the sand mining period, will be identified and recorded and who will manage and update these records (i.e. use the stakeholders list for this study as a basis); ○ How these stakeholders will be consulted on an ongoing basis ○ Make provision for grievance mechanisms – i.e. how concerns can/ will be lodged/ recorded and how feedback will be delivered as well as further steps of arbitration in the event feedback is deemed unsatisfactory.
SITE SPECIFIC MITIGATION DETAILS	
Access agreements	<ul style="list-style-type: none"> • An access agreement/ broad based community consent need to be made with affected communities • Broad based community consent and/or access agreements should be in a format which is culturally acceptable for the area • The affected community must be given an opportunity to negotiate the terms of the agreement • The following needs to be included in the agreement: <ul style="list-style-type: none"> • Operating hours • A commitment from the prospector to rehabilitate damage done and remove all waste from site • A commitment that this EMP will be adhered to • As appendices: A copy of the EMP and a short explanation of the Environmental Assessment that was conducted
Safety and Security	<ul style="list-style-type: none"> • Affected communities (Neighbours) should be given a list containing names and photographs of the sand mining team for identification purposes • Each member of the team needs to wear an ID tag (with a photo on) at all times when on site as well as a team uniform • Bright, reflective jackets need to be worn by each person on sites • All sand mining vehicles must be marked for easy identification
General	<ul style="list-style-type: none"> • Information regarding activities and related timing to be communicated through community communication channels • Implementation of a communication strategy and establishment of a community complaints mechanism • All personnel to wear identification badges
MONITORING REQUIREMENTS	

ASPECT	MITIGATION MEASURE
	<ul style="list-style-type: none">• Ensure that the necessary contracts are signed and in place• Keep constant updated records of all concerns and issues logged during the course of the sand mining operations• Monitor the speed and effectiveness of remedial actions taken upon concerns and issues raised by the public during sand mining and remedy all timeously

SECTION H: SOCIAL AND CULTURAL HERITAGE

ASPECT	MITIGATION MEASURE
GENERIC MITIGATION DETAILS	
Archaeology	<ul style="list-style-type: none"> • Should a heritage site or archaeological site be uncovered or discovered during sand mining, a “chance find” procedure should be applied in the order they appear below: <ul style="list-style-type: none"> ○ If operating machinery or equipment, stop work ○ Demarcate the site with danger tape ○ Determine GPS position if possible ○ Report findings to foreman ○ Report findings, site location and actions taken to superintendent ○ Cease any works in immediate vicinity ○ Visit the site and consult any potentially affected community to determine whether work can proceed without damage to findings ○ Determine and demarcate the exclusion boundary ○ Site location and details to be added to the project's Geographic Information System (GIS) for field confirmation by an archaeologist ○ Inspect site and confirm addition to project GIS ○ Advise the National Heritage Council (NHC) and request written permission to remove findings from work area ○ Recover, package and label findings for transfer to the National Museum • Should human remains be found, the following actions will be required: <ul style="list-style-type: none"> ○ Apply the chance find procedure as described above ○ Schedule a field inspection with an archaeologist to confirm that remains are human ○ Advise and liaise with the NHC and Police ○ Remains will be recovered and removed to either the National Museum or the National Forensic Laboratory. • Contact person at NHC: Rev. Solomon April; Tel: (061) 244 375/385/594
MONITORING REQUIREMENTS	
<ul style="list-style-type: none"> • Make sure no archaeological site is disturbed whilst excavation and recovery takes place • Make sure everything of importance, as identified by an appropriate specialist, is removed from site and declared safe by an archaeologist before sand mining can continue on the site 	

3.4 Rehabilitation and Decommissioning

This phase contains elements that should be considered when sand mining activities have been completed by the holder of the mining right. These management requirements are important to ensure that rehabilitation of the environment is optimised. It is important to note that ongoing rehabilitation initiatives have been captured and detailed in the various themes (as set out above).

Table 5: Management requirements for Rehabilitation and Decommissioning

ASPECT	MANAGEMENT REQUIREMENT
EMP IMPLEMENTATION RECORD	<ul style="list-style-type: none"> Filing and dating of all reports (including photographic documentation of successful rehabilitation initiatives) A final site inspection to be conducted and documented 3 months after all activities associated with the sand mining initiative has been completed for each sand island
FINANCIAL PROVISIONS	<ul style="list-style-type: none"> Allocate appropriate budgetary allowances for all possible rehabilitation activities and initiatives (including such requirements for a communication strategy)
LANDOWNER AND I&AP	<ul style="list-style-type: none"> Develop a communication strategy which will clearly indicate future operations (i.e. will further mining activities be conducted or Application for a Sand Mining Rights be made)

