

Project Name:	<p style="text-align: center;"><i>ENVIRONMENTAL MANAGEMENT PLAN FOR FOR THE TOWNSHIP ESTABLISHMENT IN NKURENKURU</i></p>
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## 1. INTRODUCTION

In line with the Environmental Management Act (No 7 of 2007), *Enviro Management Consultants Namibia* has been appointed to conduct an Environmental Management Plan for the proposed township establishments in Kahenge and Nkurenkuru. The MET indicated that they will consider the Environmental Clearance of the above named activities upon the submission of an Environmental Management Plan (EMP).

The proponent appointed *Enviro Management Consultants Namibia* to prepare an Environmental Management Plan (EMP) to guide the operations and activities of the project. The EMP was prepared from information gathered from the proponent; knowledge of the site and the region, as well as from experience with EIA's and EMP's conducted for other similar operations. The assessment concluded that the project will not pose any long term or irreversible threats to the receiving and surrounding environment if the operations are conducted along the guidelines of this EMP.

The EMP included in this document contains practical measures that should be taken and maintained by the developer and manager of the proposed project in order to prevent potentially negative impacts on the environment, both from the ecological and social perspective. The EMP assigns rules, regulations and responsibilities and can be used by the MET and other relevant authorities as checklist to monitor compliance at the site. The idea is to minimize any negative impacts or to completely avoid it if possible in the operation the proposed township establishment.

The actions stated in this document (EMP) should be diligently followed in order to maintain a safe, healthy and sustainable environment for future generations residing on the site and immediate environment. The proponent is responsible to oversee that the EMP is implemented and adhered to at all time. MET is kindly requested to consider and approve the EMP below and to issue a Clearance Certificate.

## 2. BACKGROUND AND SITE INFORMATION

The EMP included in this document is based on the principle that the relevant authorities with the MET as responsible Ministry, through their Environmental Control Officer's (ECO) with the proponent as responsible person, should ensure that:

- The necessary environmental authorizations and permits have been obtained and are in use;
- Open and direct communication between the developer and Interested and Affected Parties (I&APs) with regards to environmental and ecological matters are maintained;
- Regular site inspections of constructed areas and operations is conducted to ensure compliance with the EMP of the site;
- By complying with the guidelines of the EMP, the impact on the receiving environment is kept to a minimum or avoided;
- Immediate action is taken if EMP specifications are not followed or adhered to;
- All new personnel or workers should be informed on the stipulations of the EMP and that environmental awareness is regarded as a high priority;
- Level of implementation and adherence to the EMP is audited on a regular basis.

There should be a clear message to the management of the township that non-adherence to or non-compliance with the EMP can lead to the withdrawal of the Clearance Certificate and might lead to the closure of the project's operations. It is against this background that the EMP had been drafted.

### 3. RECOMMENDATION

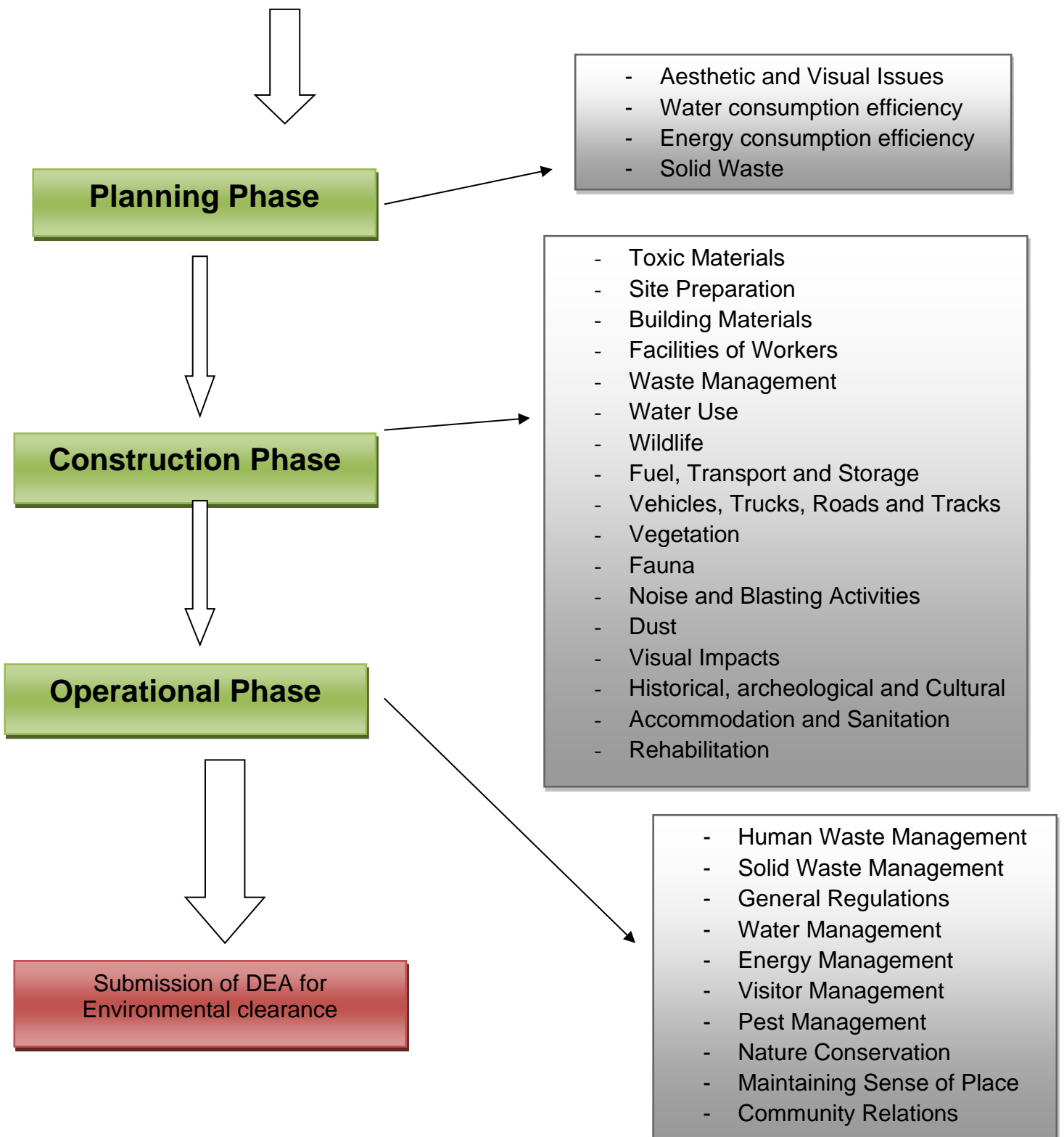
The following measures are recommended:

- That the township establishment be granted approval by the DEA given that no detailed information on the project planning development or activities is available at this stage. In addition it is also essential that the environmental assessment of the proposed development continue as a remainder of the project even after approval.
- This Environmental Management Plan (EMP) should be implemented to mitigate potential impacts which are associated with the construction and operational phase of the project.
- Sensitive zoned areas or plant life on the project site that was identified in the biophysical assessment should be avoided during the construction and operational phase of the project. However, the identified sensitive zones should be incorporated into the development on the site, but it should remain protected and preserved.
- An assessment can be done on the engineering services that the site may make use of namely potable water and electrical supply, etc., and also service delivery of waste removal and sewage disposal.

- When building the township, consider green building designs and environmentally sustainable design principles in the layout plans of the development for example make use of solar panels, rainwater tanks, recycling depots, etc.
- All developments on the site should be undertaken in such a way as to enhance the natural landscape and considers the visual impacts and benefits.
- Any activities that could potentially contribute to the pollution of any river systems will have to be directed away from these sensitive zones such as drainage lines.
- Specific consideration should be given to services such as police and fire brigades especially in areas identified for development.

An Environmental Management Plan (EMP) will have to be conducted in order for the recommendations to be fully stated and taken in consideration by the proponent, developer and manager of the project.

# Environmental Management Plan



## 4. ENVIRONMENTAL MANAGEMENT PLAN (EMP)

The proposed EMP has been drawn to give guidance to:

- Planning of future extensions or replacing of infrastructure, equipment and services (**Planning Phase**);
- Constructing and developing the infrastructure on the site (**Construction Phase**);
- Operations concerning the daily management and running of the township and associated activities (**Operational phase**);

### 4.1. PLANNING PHASE

The location and design must fit into the natural environment. The manager of the project and the leaseholder must ensure that the sense of place be kept in accordance with the surrounding areas.

Specific actions are required to ensure the negative effects or impacts are minimized on the site. The following measures should be followed:

#### 4.1.1. Vegetation

Responsible Person	Measures
The Builders, Contractors and Workforce	<ul style="list-style-type: none"><li>a. The important trees in the four sub-sites should surveyed and mapped.</li><li>b. The proposed infrastructure should be examined to see what proportion of the trees of concern will be affected, and what tweaking of the plan can be done to retain as many trees as possible.</li><li>c. Town planning staff members are already aware of the value of these trees to enhance the appearance their towns and retain their uses, but every effort should be made to encourage them and support them in their efforts to prevent loss of large trees in urban areas by giving them some form of legal authority to prevent such losses as far as possible.</li><li>d. There must be an overall preservation of vegetation communities to ensure minimal disruption of important vegetation communities and valuable plant specimens.</li></ul>



**4.1.2. Ensuring energy consumption efficiency**

<b>Responsible Person</b>	<b>Measures</b>
The Developer/Builder	<ul style="list-style-type: none"><li>a. Preference must be given to the implementation of energy conserving and efficient systems if and when the existing facilities is extended or replaced. Renewable energy sources like gas produced from household waste or solar should be considered to replace the current commercially supplied electricity.</li><li>b. Devices or equipment which conserves energy must be introduced and used in the operations of the township areas.</li></ul>

## 4.2. CONSTRUCTION PHASE

The construction phase is characterized by various activities that will take place on the project site namely landscaping of the site, earthworks for the construction of bulk services and infrastructure, construction of buildings, removal, relocation and planting of trees and shrubs etc. All these activities have an unavoidable effect on the natural environment. Various actions must thus be undertaken to minimize the effect on the receiving and surrounding natural environment. The responsible persons in the entire process will be the proponent, the developer, project manager, etc. The developer takes the ultimate responsibility during the construction phase.

The Environmental Control Officer (ECO) can ensure that the developer adhere to the EMP stipulations through regular site inspections. The manager must ensure that the developer are aware of the EMP stipulations and enforces it on site. Throughout the construction phase it will be the project manager's and architect's / town planner obligation to inspect the site at least once per month to make sure that all the mitigations measures are followed, adhered to and implemented. The project manager must do a final inspection and evaluation once the projects are completed. The project manager must also issue the construction contractor with a completion letter once he/she are satisfied that the project has been done in accordance with the Environmental Management Plan. A copy of the final letter must be sent to the Director of Environmental Affairs (DEA).

Damage to the environment during the construction phase has a few origins that differ to large degree: accidental, negligent, spillage, vehicles, earthmoving equipment, generators, workshops and plant areas. There are mitigation measures that must be followed in order to minimize or avoid pollution. The following measures are based on the Ministry of Environment and Tourism (MET) regulations and must strongly be adhered to:

**4.2.1. Spillages of potentially toxic materials**

<b>Responsible Person</b>	<b>Measures</b>
The Developer, Builders and Workforce	<ul style="list-style-type: none"> <li>a. Any spillages of potentially toxic materials, whether by accident or through negligence, must be reported and the corrective action must be undertaken to 'clean' and to remove the evidence of the spillage.</li> <li>b. Make use of design structures and transfer equipment so as to avoid spillage as far as possible.</li> <li>c. Train the staff members on how to make use of diesel/fuel transfer and to avoid spillage.</li> <li>d. Any spill must be cleaned up immediately by removing the spill together with the polluted soil and disposing of it at a recognized dumping site or facility.</li> <li>e. When there is made use of diesel generators on site it must be placed on concrete slabs.</li> <li>f. When a workshop is introduced, the entire work area must be lined by concrete.</li> <li>g. Any runoff from the work areas either arising from wash downs or rainfall must be channeled into a pollution control pond.</li> <li>h. There must be a weekly monitoring of all equipment namely a visual check; there must also be a weekly monitoring of work areas.</li> </ul>

#### 4.2.2. Site Preparation

Responsible Person	Measures
The Developer, Builders and Architect	<ul style="list-style-type: none"><li>a. Before any workers, equipment or building materials are brought in; the developer must set out the entire plan. The corners of every building, walkway, driveway, parking area, water installations, power generator, etc must clearly be marked.</li><li>b. The marked out area must be inspected and approved by the architect before any construction is started.</li><li>c. The building contractor must demarcate the area with metal droppers and hazard tape so that there will be no confusion about which area may be disturbed for development and which areas will strictly be off-limits.</li></ul>

#### 4.2.3. Building Materials/Equipment

Responsible Person	Measures
The Developer, Builders and Workforce	<ul style="list-style-type: none"><li>a. All the materials needed in the construction process namely bricks, sand, cement, poles, roofing, etc., must be brought into the site from outside and not sourced from the natural surroundings.</li><li>b. In the case of items that are not brought from a registered shop for example poles, the contractor must ensure that the harvesting of these materials did not cause any serious impacts at the place which they came from.</li><li>c. Sand that will be used for building may only be collected from a site that is not visible to tourists and preferably a nearby farm, but not from the rivers nearby.</li><li>d. However, if rocks will be used for cladding it may be collected from the site.</li></ul>

	<p>e. No materials, including rocks for building purposes may be collected from the environmentally sensitive areas pointed out in the Scoping report.</p>
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<b>4.2.4. Facilities for Workers</b>	
<b>Responsible Person</b>	<b>Measures</b>
<p>The Proponent, Developer and Builders</p>	<ul style="list-style-type: none"> <li>a. All workers that need to reside on the site while the construction is in progress will have to be housed in temporary structures like tents or caravans to limit the impact on the environment. The majority of the workforce will consist of people already living in the Nkurenkuru area and therefore minimum impact on the environment is expected.</li> <li>b. The workforce residing on the site must be provided with water, proper toilets and washing facilities.</li> <li>c. The toilets established on the site must preferably be flush type toilets that are mounted over a septic tank or a dry toilet system that is similar to the units used during road construction projects.</li> <li>d. Cooking on the site must be done on gas or open fires. When the workers make use of open fires, these must be made in a designated spot so that there will be no possibility for a veldt fire occurring.</li> <li>e. Although the surrounding settlers collect wood in the area, construction workers working or residing on site should not be allowed to collect wood for cooking purposes. The manager or developer must provide them with wood/charcoal preferably from intruder bush from outside sources.</li> </ul>

#### 4.2.5. Waste Management

Responsible Person	Measures
The Developer and Builders	<ul style="list-style-type: none"> <li>a. Should the developer and builders make use of combustible waste for example empty cement bags, it must be burnt in a drum and the necessary care must be taken to avoid any possibility of starting a veldt fire.</li> <li>b. Any waste that is stored temporarily on the proposed township site must be secured in refuse bags stored in a fenced in area to avoid it being blown into the veldt.</li> </ul>

#### 4.2.6. Water Use

Responsible Person	Measures
The Developer, Builders and Workforce	<ul style="list-style-type: none"> <li>a. Water must at all times be used sparingly in the construction phase as well as in the operational phase.</li> <li>b. All tapes, pipes and tanks that will be constructed must be maintained and managed so that they do not leak.</li> <li>c. Water pipelines laid to the project site shall be done in such a manner that the surface and natural vegetation are not unduly disturbed.</li> <li>d. Weekly visual checks on possible spillages must be conducted.</li> <li>e. Effluent water from washing facilities must be disposed of in a properly constructed French drain/storage tank that must be located as far as possible, but not less than 50 meters from a stream, river, pan, dam or borehole.</li> <li>f. French drains may only collect domestic type wash water, any effluent containing oil, grease or other industrial substances must be collected in a suitable receptacle and must be removed from the site, it</li> </ul>

	<p>could either be for resale or for appropriate disposal at a recognized facility.</p> <p>g. There must be weekly inspections of drains.</p> <p>h. These drains must be demolished after construction and the sites must be cleaned and restored to its natural state.</p> <p>i. When reservoirs are built, it must be covered to reduce evaporation.</p> <p>j. No reservoirs must be visible from the main road.</p> <p>k. There must also be weekly visual checks of the reservoirs and it must be supervised on site by the managers.</p> <p>l. Water must be recovered if used for cutting, cooling or washing.</p> <p>m. The workforce must be advised to use water sparingly for human consumption.</p> <p>n. Water consumption must be checked on a three monthly basis.</p>
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#### 4.2.7. Wildlife

Responsible Person	Measures
The Workforce, Builders, Contractors and Employees	a. No wild animals on the site may be trapped or killed for any reason whatsoever by the workers, builders, contractors or employees.

#### 4.2.8. Fuel, Transport and Storage

Responsible Person	Measures
The Vehicle Drivers,	a. Vehicles that transport materials to and from the site must be road worthy.

Builders and Contractors	<ul style="list-style-type: none"> <li>b. All drivers that transport materials must have a valid driver's license and must at all times adhere to traffic rules and regulations.</li> <li>c. Vehicles carrying loads must be properly secured in order to completely avoid items falling off the vehicle at any time.</li> <li>d. The materials used in the construction process for example cement, bricks, poles, etc., must be stored at a central storage area on the site in order that the site be neat and orderly and to avoid a situation where materials are lying all over the place.</li> <li>e. Fuels, paints, solvents and chemicals must be stored in watertight containers that will ensure it cannot react with each other or be spilled onto the ground.</li> </ul>
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4.2.9. Vehicles, Trucks, Roads and Tracks	
Responsible Person	Measures
The Vehicle Drivers, Builders and Contractors	<ul style="list-style-type: none"> <li>a. Any haphazard driving of any vehicles across the veldt where there are no existing routes must be avoided.</li> <li>b. Minimize the use of fix routes that will reduce the visual impact and decrease the need for the rehabilitation of tracks.</li> <li>c. Vehicles, trucks and earthmoving equipment with headlights must switch their headlights on at all times.</li> <li>d. No vehicles or trucks that move in the area may exceed 40km/h with warning, and speed signs must be positioned at relevant locations.</li> <li>e. All the personnel responsible for the driving of transport vehicles must be in possession of a valid driver's license.</li> </ul>



	<ul style="list-style-type: none"> <li>f. Any access points off the gravel roads must be well signposted in advance.</li> <li>g. No littering is allowed along the road, dumping of waste and scrap, etc. and all drivers must be made aware of this.</li> <li>h. Daily or weekly visual checks are required and all drivers must be supervised.</li> <li>i. The safety of surrounding residents and land users, other motorists and animals should not be compromised by the vehicle associated with the constructional operation.</li> </ul>
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4.2.10. Vegetation	
Responsible Person	Measures
The Builders, Contractors and Workforce	<ul style="list-style-type: none"> <li>e. The important trees in the four sub-sites should surveyed and mapped.</li> <li>f. The proposed infrastructure should be examined to see what proportion of the trees of concern will be affected, and what tweaking of the plan can be done to retain as many trees as possible.</li> <li>g. Construction staff should be educated and informed of their environmental obligations. Meaningful penalties for damages should be stipulated, and the main contractor should be held responsible for all transgressions.</li> <li>h. Town planning staff members are already aware of the value of these trees to enhance the appearance their towns and retain their uses, but every effort should be made to encourage them and support them in their efforts to prevent loss of large trees in urban areas by giving them some form of legal authority to prevent such losses as far as possible.</li> <li>i. There must be an overall preservation of vegetation communities to ensure minimal disruption of</li> </ul>

	<p>important vegetation communities and valuable plant specimens.</p> <ul style="list-style-type: none"> <li>j. At all times, clearance of vegetation for firewood must be avoided.</li> <li>k. Alternative fuel and/or power sources must be made available namely paraffin stoves and diesel-driven generators if workers are accommodated on the site.</li> <li>l. Daily inspections must be carried out and weekly checks whether the stock of alternative sources is sufficient.</li> <li>m. The developers and manager must ensure the maximum use of local plant material for rehabilitation processes.</li> <li>n. Before new site construction begins, the upper level of the soil must be stripped and stockpiled separately so that this layer can be utilized in the rehabilitation process.</li> <li>o. There must also be a visual check on the wind erosion on a monthly basis.</li> </ul>
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4.2.11. Noise Activities	
Responsible Person	Measures
The Workforce, Developer and Builders	<ul style="list-style-type: none"> <li>a. If a generator is used, it must be positioned away from neighboring residential developments and must have boarding to help suppress noise.</li> <li>b. There must be limited impacts on adjacent settlements and on the workforce.</li> <li>c. There must be a weekly noise check of the generator and other equipment namely of trucks and construction machinery.</li> </ul>

<b>4.2.12. Dust</b>	
<b>Responsible Person</b>	<b>Measures</b>
The Developers, Contractors and Builders	<ul style="list-style-type: none"> <li>a. The impact of dust on the air quality in general and on the fauna and flora must be limited.</li> <li>b. The general speed limit on the gravel roads and construction site must be kept below 40km/h to limit dust generated by construction traffic.</li> <li>c. There must be daily visual monitoring of transport activities and dust generation in the area.</li> </ul>

<b>4.2.13. Visual Impacts</b>	
<b>Responsible Person</b>	<b>Measures</b>
The Proponent, Developer, Contractors and Builders	<ul style="list-style-type: none"> <li>a. The height of the buildings must be in line with the urban design proposal to ensure that the development is aesthetically pleasing. Waste and stockpile dumps must not be visible from the road or neighboring developments.</li> <li>b. The developer must ensure that all structures on site are blending with the surrounding landscape.</li> <li>c. The urban design and architectural concepts proposed in the planning phase must be adhered to and implemented to ensure that the development is in harmony with the surrounding natural environment.</li> </ul>

#### 4.2.14. Historical, archaeological and cultural heritage

Responsible Person	Measures
The Contractors, Developer and Builders	<ul style="list-style-type: none"><li>a. No archaeological or cultural heritage sites had been identified or observed during the environmental assessment. However the developer and the workers must carefully examine the area before any construction is undertaken.</li><li>b. If any archaeological or cultural heritage sites are found on the site, the manager must immediately advise the National Monuments Council to ensure that steps are taken for the preservation of the site or artefacts.</li></ul>

#### 4.2.15. Accommodation and Sanitation

Responsible Person	Measures
The Contractors, Developers and Builders	<ul style="list-style-type: none"><li>a. There must be no camp or office site located closer than 50 meters from any water course (spring, river, dam or pan).</li><li>b. If space is required for a camp or office site, it must be kept to a minimum.</li><li>c. Chemical toilet facilities are preferred by the Ministry of Environment and Tourism. Other approved toilet facilities such as a septic drain must be used and located on the camp site in a way that it does not cause any water or other pollution.</li></ul>

**4.2.16. Rehabilitation of site after completion of construction phase**

Responsible Person	Measures
<p>The Builders, Workforce, Contractors, Developers and Employees</p>	<ul style="list-style-type: none"> <li>a. Before any final rehabilitation is started on the site, the Ministry of Environment and Tourism must be advised to set certain terms and conditions.</li> <li>b. Qualified or accredited personnel from the constructing and developing companies must refill pits alternately with waste and not saleable stockpiled blocks and smaller fragments of larger blocks.</li> <li>c. Refilled rock waste must be covered with saved topsoil and complemented if necessary by scraping the area adjoining the pit on the condition that no vegetation is cleared for this operation.</li> <li>d. All rehabilitated areas must be monitored over a 4 year time period from the onset of the rehabilitation procedures. (The frequency of monitoring suggested is dependent on satisfactory performance. If however the requirements are not being met, the frequency of the monitoring must be increased).</li> <li>e. Unwanted materials must be collected and remaining domestic waste on site must be collected and transported to a recognised disposal facility.</li> <li>f. All weedy species present on the site must manually be removed.</li> <li>g. Monitoring must be conducted when grasses are flowering.</li> <li>h. Upon the completion of all construction activities, remove workshops, surrounding fencing, generators and any scrap materials in the vicinity of the work area.</li> <li>i. Seal all petrol, diesel, oil and grease containers and remove it from the site to a recognised storage facility.</li> <li>j. Break up all unnecessary concrete slabs and structures on the site and transport the fragments to a suitable site for disposal or dump it in one of the pits.</li> </ul>

There must be photographic evidence at different rehabilitated places with a camera providing dates on the prints. These photographs must be taken every year around the same period at the same places.

### 4.3. THE OPERATIONAL PHASE

Steps to be taken in the daily management and running of the township establishment and associated activities are stated in the following section. To ensure that the project is operated on an environmentally sustainable manner the following **general guidelines** are included in the EMP:

- a. The townships must be managed with minimal disturbance to the surrounding natural environment.
- b. It must be ensured that guests to the sites behave in an appropriate manner that does not impact negatively on the environment and local communities.
- c. The conservation of the natural and human environment must be regarded as high priority.
- d. An "environmental friendly behavior" must be cultivated and maintained amongst all people involved in the operation of the townships.
- e. The entire operation on the site must ideally conform to the standards usually ascribed to "eco-tourism" since tourists may make use of the facilities as well.
- f. The job description for the manager of the project must include his/her responsibilities and duties towards the implementation and adherence to the EMP.

The following specific environmental management issues which require daily operational attention from management and staff are included in the EMP:

#### 4.3.1. Human Waste Management

<b>Responsible Person</b>	<b>Measures</b>
The Proponent, Developer, Contractor and Builders	<ul style="list-style-type: none"><li>a. All the toilets must be flush-type toilets and must drain into septic tanks.</li><li>b. The overflow from the septic tank must be into a reed-bed soak-away or stone bed.</li><li>c. The proposed township must make use of biodegradable toilet cleaners that do not kill the bacteria in the septic tanks.</li></ul>

**4.3.2. Solid Waste Management (namely kitchen scraps, tins, bottles, paper, etc.)**

<b>Responsible Person</b>	<b>Measures</b>
The Proponent, Manager and Employees	<ul style="list-style-type: none"> <li>a. The proponent/manager's first priority must be to reduce waste therefore they must buy supplies in large biodegradable containers in order to avoid too many empty bottles, tins, etc.</li> <li>b. At the end of each day waste at the township site must be taken to a dedicated waste management area.</li> <li>c. The waste bins or drums must be washed after having been emptied. The bins must return to the site clean and dry.</li> <li>d. Cans, bottles or beverage containers must either be recycled or reused, or taken to the waste management area. The cans, bottles and containers must not accumulate on the site either near the buildings or anywhere on the site.</li> </ul>

**4.3.3. General Regulations**

<b>Responsible Person</b>	<b>Measures</b>
The Proponent, Manager and Residents	<ul style="list-style-type: none"> <li>a. No waste of any kind may be burned at the site.</li> <li>b. All the chemicals used to clean the surfaces namely basins, floors, tables, etc., must be biodegradable.</li> </ul>



4.3.4. Water Management	
Responsible Person	Measures
The Proponent, Manager and Residents	<ul style="list-style-type: none"> <li>a. Vehicles must be washed with a bucket and not with a hosepipe.</li> <li>b. Driveways on the site must be cleaned with brooms and not with water.</li> <li>c. All pipes must be well maintained and leaks must be repaired immediately.</li> <li>d. All taps must be turned off after it had been used.</li> <li>e. Floors must be cleaned with mops and not with a hosepipe.</li> <li>f. A water meter must be installed and it must be checked regularly to keep a register of water consumption and to monitor trends.</li> </ul>

4.3.5. Energy Management	
Responsible Person	Measures
The Proponent, Contractor, Builders, Manager and Employees	<ul style="list-style-type: none"> <li>a. Electricity must be obtained from approved electrical suppliers like NamPower to ensure efficiency of generation and use as well as sustainability of supply.</li> <li>b. Gas must be used as alternative to electricity in kitchens due to its efficiency and low pollution factor.</li> <li>c. The developers may only use a generator as emergency source of electricity as continues operation thereof normally creates additional noise, require the bulk storage of fuel and oil which can have a negative impact on the environment if not managed properly.</li> <li>d. When fires are used on the site, the workforce must make use of alien-invasive wood that is readily available for example wood that comes from bush encroaching species for example <i>Acacia melifera</i>.</li> </ul>

	<p>The workers must avoid using species that might be harvested unsustainably.</p> <p>e. The township operators may not buy wood from the local people since that might lead to increased deforestation by cutting down protected species or the natural forests</p>
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<b>4.3.6. Nature Conservation</b>	
<b>Responsible Person</b>	<b>Measures</b>
The Proponent, Manager and Employees	<p>For the proposed townships to sustain the natural attributes it needs to be preserved and protected to the best of their abilities. The manager of the projects has a key responsibility in protecting the environment on the site and the following measures should be taken:</p> <ol style="list-style-type: none"> <li>a. They must have adequate waste management control.</li> <li>b. They must have adequate water management control.</li> <li>c. The manager of the project must adopt and encourage responsible behavior on the site.</li> <li>d. The workforce must refrain from planting alien plants.</li> <li>e. A general environmental awareness must be established amongst staff members and visitors.</li> </ol>

<b>4.3.7. Maintaining Sense of Place</b>	
<b>Responsible Person</b>	<b>Measures</b>
The Proponent, Manager and Residents	<p>Sense of place is seen as the style of the area or site, the atmosphere present when entering the site and the general "vibe" of the place. The "sense of place" normally differentiates one area from the other and</p>

therefore management at the proposed township areas must avoid the following:

- a. They may not make use of any inappropriate décor for example bright or clashing colors, unattractive murals or art, unnecessary statues, etc.
- b. No shabbiness may be experienced on the site; management must make sure that they abstain from untidiness, un-emptied ashtrays, rubbish bins etc.
- c. The manager at the project site must repair and maintain all infrastructure since un-repaired infrastructure creates a poor impression.
- d. Waste must be properly managed on the site; visitors and residents may not smell rubbish bins. The manager must keep drains clean in order to avoid unpleasant smells.
- e. The sites may not have many signs or objects that distract tourists driving past the site from the natural beauty of the area.
- f. No scrap metal for example old vehicles or equipment may lie around in various states of disrepair, the site must be clean and neat.
- g. The manager may not allow overcrowding at the site since this will destroy sense of place in a way that it will take away the feeling of exclusivity.
- h. There may be no people loitering around at the site, whether visiting staff or looking for work.

## 5. ENVIRONMENTAL STATEMENT/AGREEMENT

After all assessing was done and information available was reviewed, the conclusion was reached that **the site allocated to township establishments are suitable to be used for these activities as it will have a low significance impact rating.** The activities associated with the development will exert a low impact on the environment and are easily manageable **as long as the impact on the environment is mitigated through the implementing of the Environmental Management Plan (EMP)** as proposed in this document. Management actions prescribed and recommended in this EMP are especially designed to minimize or manage the impacts exerted by the development and the staff members working on the site.

It should however be noticed that the management activities should further be strengthened with continuous and well-orchestrated monitoring of the implementation of the given EMP. The manager on the proposed site needs to understand the severity of the situation and all efforts should be made to ensure that the message is conveyed to the workforce and visitors.

It should further be noted the proposed EMP will have little or no value in managing the impact of the proposed development on the environment if it is not implemented by the proponent and not monitored by the responsible authorities. **It is thus suggested that the level of implementation of the EMP is audited at regular intervals by the Environmental Control Officer of the MET in order to ensure that remedial actions are taken on time and on a continues basis.**

The Ministry of Environment and Tourism is herewith requested to accept and approve the EMP of the proposed township establishment in Nkurenkuru and Kahenge and to issue the developments with an Environmental Clearance Certificate.