



**ENVIRONMENTAL MANAGEMENT PLAN FOR  
THE PROPOSED TOWNSHIP ESTABLISHMENT  
TO BE SITUATED ON A PORTION OF THE  
REMAINDER OF PORTION 3 OF THE FARM  
NABOOMSPRUIT 348 KR, LIMPOPO PROVINCE**

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ESTABLISHMENT ON A PORTION OF THE REMAINDER OF PORTION 3 OF  
THE FARM NABOOMSPRUIT 348 KR, LIMPOPO PROVINCE**

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## **ENVIRONMENTAL ASSESSMENT PRACTITIONER DECLARATION**

I, **Mankaleme M. Magoro** in my capacity as an Environmental Assessment Practitioner, hereby declare that I-

- Act as an independent consultant;
- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed in terms of the National Environmental Management Act (No. 107 of 1998);
- As a registered member of the South African Council for Natural Scientific Professions (SACNASP) and Environmental Assessment Practitioners Association of South Africa (EAPASA), will undertake our profession in accordance with the Code of Conduct of the Councils
- Based on the information provided to us by the project proponent, and in addition to information obtained during this study, have presented the results and conclusion within the associated document to the best of our professional judgement.

## **LIST OF APPENDICES**

- Appendix A Environmental Code of Conduct
- Appendix B Environmental Complaints Registers
- Appendix C Environmental Incidents Registers
- Appendix D Environmental Training Register
- Annexure E Environmental Authorisation / Record of Decision
- Appendix F Details and Expertise of the EAP

## **ACRONYMS**

Limpopo Department of Economic Development, Environment and Tourism	LEDET
Environmental Management Plan	EMP
Environmental Authorisation	EA
Record of Decision	RoD
Independent Environmental Auditor	IEA
Environmental Control Officer	ECO
Environmental Officer	EO
Environmental Consultant	EC
Environmental Assessment Practitioner	EAP
Interested and Affected Parties	I&APs
Competent Authority	CA
Environmental Impact Assessment	EIA
National Environmental Management Act	NEMA
Hectares	Ha
Central Business District	CBD

## **DEFINITIONS**

### **Construction:**

*Construction means the building, erection or establishment of a facility, structure or infrastructure that is necessary for the undertaking of a listed or specified activity but excludes any modification, alteration or expansion of such a facility, structure or infrastructure and excluding the reconstruction of the same facility in the same location, with the same capacity and footprint.*

### **Township Establishment:**

*Township Establishment is a complex process of converting agricultural zoned land into residential, commercial or industrial properties/erven. A Township Establishment application is submitted to the relevant local authority*

### **Disturbance:**

*Any event or series of events that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment.*

### **Earth Works:**

*This involves construction machinery, dampening and general preparation of the site for construction purposes.*

### **Environmental Incident:**

- *Any action undertaken (or omitted) by the proponent or his duly appointed representatives (e.g. contractors) that results in overly/unnecessary disturbance or damage to the environment.*
- *Any action undertaken (or omitted) by the proponent or his duly appointed representatives (e.g. contractors) that could lead to (has potential for) overly/unnecessary disturbance or damage to the environment.*
- *Non-adherence to environmental legal requirements/laws (including the stipulations of authorisations issued in respect of a proposed activity e.g. those contained in a Record of Decision).*

### **Environmental Management Plan:**

*A guideline document/directive outlining the Plan (EMP) for mitigation, monitoring and institutional measures to be taken during project implementation and operation to avoid or control adverse environmental impacts, as well as the actions needed to implement these measures (World Bank, 1999:1).*

### **Environmental Officer:**

*Person / party appointed to monitor compliance with the Environmental Management Plan.*

### **Stakeholders, Interested & Affected Party:**

*A person, group of people, an organisation (public or private), a business, or other party that has an interest or is affected in terms of their health, property rights, or economy by a proposed activity.*

**Impact:**

*A description of the potential effect or consequence of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space.*

**Mitigation Measures:**

*Mitigation measures encompass all actions taken to eliminate, offset or reduce potentially adverse environmental impacts to acceptable levels (World Bank, 1999:1)*



## **I. INTRODUCTION**

### **I.1 Purpose of the Environmental Management Plan**

The purpose of the EMP is to proactively address the potential environmental impacts before they occur. This will ensure that unnecessary damage to the environment during the construction and operational phase is avoided. Moreover, mitigation measures will be implemented to minimise environmental degradation.

The purpose of the EMP is to ensure that impact prevention and mitigation measures identified in the Basic Assessment Report for the establishment of the proposed township are translated into practical impact management and monitoring actions during construction and operation. The conditions of authorisation will be used to refine this EMP and ensure that environmental management requirements are taken into account during various phases of the development (i.e. planning, construction and operation).

This Environmental Management Plan (EMP) was designed for the proposed township development on a Portion of the Remainder of Portion 3 of the Farm Naboomspruit 348 KR, Limpopo Province. This document considers the impacts that are likely to arise from the implementation of the project and the mechanisms that are recommended to minimise the severity of these impacts. The EMP covers principles, responsibilities and requirements applicable in order to implement effective environmental management, during the construction and operational phase of the proposed township.

Best practice principles require that every reasonable effort be made to reduce and preferably to prevent negative impacts, while enhancing positive impacts / benefits. Specialists have also identified measures whereby impacts can be avoided or mitigated.

It is necessary to highlight that this EMP is a living document that must be periodically reviewed and updated. It will also be publicly disclosed during the public participation process, and an opportunity will be offered to all participating stakeholders, interested and affected parties to comment on it.

### **I.2 Project Background**

Leago Environmental Solutions was appointed by Real Development Planning Company on behalf of the Modimolle - Mookgophong Local Municipality as an Independent Environmental Assessment Practitioner to undertake an Environmental Impact Assessment (Basic Assessment Reporting) for the proposed township establishment to be situated on a Portion of the Remainder of Portion 3 of the Farm Naboomspruit 348 KR, Limpopo Province.

### 1.3 Location of the Proposed Activity

The proposed development is located on a Portion of the Remainder of Portion 3 of the Farm Naboomspruit 348 KR, in Limpopo Province. The site is located approximately 51.7km away from Mokopane CBD. Figure 1 below indicates the locality map of the project area.

The proposed development site is located roughly at the following GPS coordinates:

**Longitude: 28°43'1.59" E; Latitude: 24°31' 25.52" S**

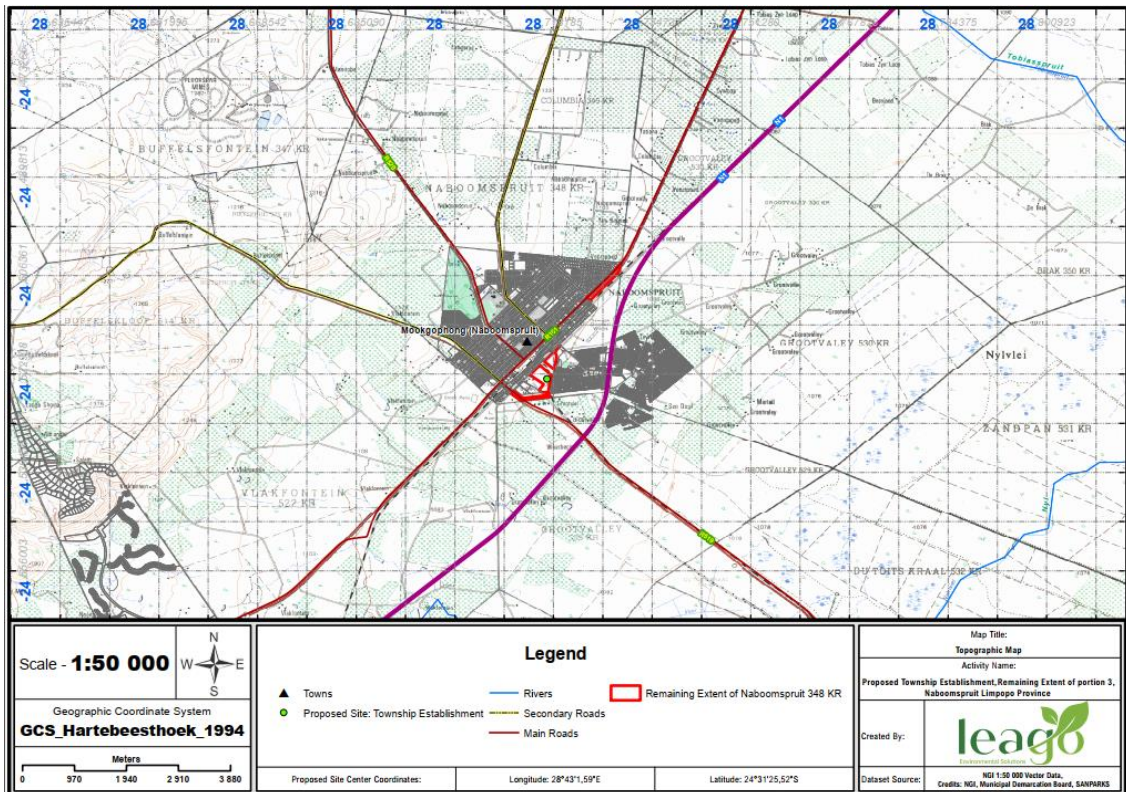


Figure 1: Locality map of the proposed development site

### 1.4 Details of the Proposed Activity

The proposed development entails 91 stands for:

- 85 Residential I
- 1 Business
- 2 Institutional
- 1 Place of Worship
- 1 Municipal
- 1 Government

The proposed development site covers approximately 9.5 hectares in extent.

## **1.5 Status of the Document**

The provisions of this EMP are binding on the Contractor (and his subcontractors, where applicable) during the construction period and defects liability period of the contract. This specification must therefore be read in conjunction with all the documents that comprise the contract documents for this contract. In the event that any conflict occurs between the terms of the EMP and the project specification, the terms of the EMP shall stand.

On appointment of the Contractor, the Acknowledgement Form attached to the back of this EMP is to be signed by the project applicant, employer's representative (ER) and all contractors and subcontractors, including the contractors designated environmental officer (DEO). A copy of the signed form is to be kept by the applicant and forwarded to the independent environmental control officer (ECO).

Responsibility for environmental management on the site, as stipulated in the EMP will be handed over from the contractor to the applicant upon issuing of a completion certificate at site handover.

## **2. STATUTORY AND OTHER LEGAL REQUIREMENTS**

### **2.1 Environmental Impact Assessment Regulations (2017)**

On review of the Environmental Impact Assessment Regulations of 2017, the proposed township establishment triggers the following listed activity:

- GNR 327: Listing Notice 1, Activity 27

Based on the above, the applicant (Modimolle - Mookgophong Local Municipality) is applying for an environmental authorisation from the Competent Authority, Limpopo Department of Economic Development, Environment and Tourism for the purpose of the commencement of the above-mentioned activity.

The applicant, however, is reminded of Section 28 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), Duty of Care and Remediation of Environmental Damage, which states the following:

*"(1) Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot be reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.*  
*(2) the persons on whom subsection (1) imposes an obligation to take reasonable measures, including and owner or land, a person in control of land or premises, or a person who has a right to use the land or*

premises on which or in which – (a) any activity or process is or was performed or undertaken; or (b) any other situation exists, which causes or has caused or is likely to cause significant pollution or degradation of the environment. (3) The measures required in terms of subsection (1) may include measures to – (a) investigate, assess and evaluate the impact on the environment; (b) inform and educate Employees about the environmental risks of their work and the manner in which their tasks must be performed in order to avoid causing significant pollution or degradation of the environment; (c) cease, modify or control any act, activity or process causing pollution or degradation; (d) contain or prevent the movement of pollutants or the causing of degradation; (e) eliminate the source of the pollution or degradation; or (f) remedy the effects of the pollution or degradation...”

## 2.2. Other Applicable Legislation

Legislations / Act	Purpose of the Act / Legislation
South African Constitution (No. 108 of 1996)	Chapter 2 of the Constitution comprises the Bill of Rights which makes provision for Environmental Rights. This notes that everyone has the right: <ul style="list-style-type: none"> <li>• To an environment that is not harmful to their health or well-being; and</li> <li>• To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:               <ul style="list-style-type: none"> <li>✓ Prevent pollution and ecological degradation;</li> <li>✓ Promote conservation; and</li> <li>✓ Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.</li> </ul> </li> </ul>
Limpopo Environmental Management Act (No. 107 Of 2003)	The objectives of this Act are- <ul style="list-style-type: none"> <li>• To manage and protect the environment in the province;</li> <li>• To ensure ecological sustainable development and responsible use of natural resources in the province;</li> <li>• Generally, to contribute to the progressive realisation of the fundamental rights contained in section 24 of the Constitution of the Republic of South Africa Act, 1996 (Act No. 108 of 1996);</li> <li>• To put into practice international agreements effecting environmental management which are binding on the province.</li> </ul>
National Water Act (No. 36 of 1998)	The primary purpose of this Act is to manage and control South Africa’s water resources by: <ul style="list-style-type: none"> <li>• Meeting the basic human needs of present and future</li> </ul>

	<p>generations;</p> <ul style="list-style-type: none"> <li>• Promoting the efficient, sustainable and beneficial use of water in the public interest;</li> <li>• Providing for growing demands for water use;</li> <li>• Protecting aquatic and associated ecosystems and their biological diversity;</li> <li>• Reducing and preventing pollution and degradation of water resources and meeting international obligations.</li> </ul>
Occupational Health and Safety Act, (No. 85 of 1993)	This Act makes provision in its Regulations for the general duties of employers to their employees. The Regulations make provisions for general duties of employers and self-employed persons to persons other than their employees.
National Environmental Management: Waste Act (No. 59 of 2008)	This Act reformed the laws regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; by providing for national norms and standards for regulating the management of waste by all spheres of government; by providing for specific waste management measures; by providing for licensing and control of waste management activities; by providing for the remediation of contaminated land; by providing for the national waste information system; and by providing for compliance and enforcement and for matters connected therewith.

### 3. IMPLEMENTATION OF THE EMPR

#### 3.1. The Applicant

Modimolle – Mookgophong Local Municipality

52 Harry Gwala St, Modimolle, 0510

South Africa

**Contact Person:** M.M Berrange

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- 3.1.1. The overall responsibility for ensuring compliance lies with the Modimolle - Mookgophong Local Municipality.
- 3.1.2. Modimolle - Mookgophong Local Municipality shall ensure that the contract, all staff members, sub-contractors (if any) and suppliers understand and adhere to the EMP.
- 3.1.3. Modimolle - Mookgophong Local Municipality shall ensure that all sub-contractors (if any) and suppliers are contractually bound to adhere to the EMP and Environmental Code of Conduct.

### **3.2. Environmental Control Officer**

- 3.2.1. The applicant shall appoint an Environmental Control Officer to supervise the implementation of the EMP.
- 3.2.2. The ECO shall be responsible for:
  - Day to day implementation of the EMP and coordination of all environmental matters on the proposed development site.
  - Ensuring that all staff members are adequately trained and comply to the conditions of the EMP
  - Liaison with the project manager, client and the public.

## **4. GENERAL REQUIREMENTS OF THE ENVIRONMENTAL MANAGEMENT PLAN**

### **4.1. Administrative Requirements of the EMP**

The following shall apply:

- Copies of the EMP shall be made available to the regulating authority, project manager, engineer, contractor and the environmental control officer.
- Copies of the EMP must be kept at the site office/s during the construction phase and shall be distributed to the environmental officer and all other senior contract personnel.
- All senior personnel will be required to familiarize themselves with the contents of this document.
- Any significant revisions to the EMP document must be approved by ECO
- Records will be kept in the document indicating changes that have been made. The ECO shall be responsible for the implementation and distribution of any “approved” revisions to the EMP.
- The employer’s representative may order the contractor to suspend part or all of the works during the construction phase if the contractor fails to comply with the conditions set out in the EMP and Method Statements supplied by the contractor and any sub-contractors. Such suspension will be enforced until compliance is achieved.

## **4.2. ROLES AND RESPONSIBILITIES**

### **i. LEDET**

LEDET is the competent authority responsible for authorising this EMP with regard to the proposed township establishment on Portion of the Remainder of Portion 3 of the Farm Naboomspruit 348 KR. LEDET has the overall responsibility for ensuring that the project proponent being the Modimolle – Mookgophong Local Municipality complies with the conditions of this EMP.

Modimolle - Mookgophong Local Municipality under the South African environmental legislation will be accountable for the potential impacts of the activities that will be undertaken and is responsible for managing these impacts. The proponent therefore has overall environmental responsibility to ensure that the implementation of this EMP complies with the relevant legislation and the conditions of this EMP and the conditions of the Environmental Authorisation. The proponent will also have to appoint a contractor to undertake the construction for the proposed township development but will still ultimately be responsible for any environmental impacts caused by the proposed development.

### **ii. Employer's Representative**

The appointed civil and consulting engineers as the employer's representative, would act as the employer's on-site implementing agents, together with the appointed contractors during the construction and operational phases of the township. The ER will have the responsibility to ensure that the employer's responsibilities are executed in compliance with the relevant legislation and this EMP.

In addition to general project management, the ER, together with the project proponent, has the responsibility to appoint the Environmental Control Officer. Any on-site decisions regarding environmental management, however, are ultimately the responsibility of the ER.

### **iii. Operations Manager**

During the operational phase, the operations manager will have the responsibility to ensure that the authorisation holder's responsibilities are executed in compliance with the relevant legislation and this EMP. Any on-site decisions regarding environmental management are ultimately the responsibility of the Operations Manager.

The operations manager is to fully familiarise him / herself with the contents of this EMP in terms of the operational phase. He / she will be required to sign a register confirming his / her familiarity with the document (see Appendix A). The operations manager must furthermore possess the necessary skills to

action environmental management to all personnel under the employment of the project proponent and must ensure compliance with the requirements of the EMP on a daily basis.

#### **iv. Environmental Awareness Training**

The operations manager shall ensure that adequate environmental awareness training of senior site personnel takes place and that all the construction phase workers receive an induction presentation on the importance and implications of the EMP.

The presentation shall be conducted, as far as possible, in the employees' language of choice.

As a minimum, training will include:

- Explanation of the importance of complying with the EMP;
- Discussion of the potential environmental impacts of construction / operational activities;
- The benefits of improved personal performance;
- Employees' roles and responsibilities, including emergency preparedness;
- Explanation of the mitigation measures that must be implemented when carrying out their activities;
- Explanation of the specifics of this EMP and its implementation; and
- Explanation of the management structure of individuals responsible for matters pertaining to the EMP.
- The Operations Manager shall keep records of all environmental training sessions, including names, dates and the information presented. These records will be presented to the ECO on request during his / her audits.

### **5. ENFORCING THE EMP**

The project proponent / applicant, or their designated representatives, has an overall responsibility to ensure that all those people involved / appointed to the project are aware of and familiar with its environmental requirements. The EMP shall be part of the terms of reference for all contractors, sub-contractors and suppliers. All contractors, sub-contractors and suppliers have to give some assurance that they understand the EMP and that they will undertake to comply with the conditions therein.

All senior and supervisory staff members shall familiarise themselves with the full contents of the EMP. They shall know and understand the specifications of the EMP and shall be able to assist other staff members in matters relating to the implementation of the EMP.

All parties involved in the project must sign an acknowledgement that they are familiar with the requirements of the EMP. These records must be kept on file by the proponent.



## 6. PHASES OF THE PROJECT

The abbreviations below will be applicable in all phases of the project:

- ER / IA           Employer’s Representative / Implementing Agent
- DEO             Designated Environmental Officer
- C                 Contractor
- OM              Operations Manager

### 4.3. PLANNING PHASE

Planning/ Designing Phase	Responsibility	Monitoring	Timeframes
Signing of service agreements between the Applicant (Modimolle – Mookgophong Local Municipality) and the relevant service providers	Applicant	Applicant	Once off
Appointment of the contractors by the Applicant	Applicant	Applicant	Once off

### 4.4. CONSTRUCTION PHASE

Construction Phase	Responsibility	Monitoring	Timeframe
<b>Layout</b>			
The Contractor is to adhere to the following with regards to the Materials Storage Area and Contractors Camp: <ul style="list-style-type: none"> <li>• All servitudes and existing services must be verified prior to construction</li> </ul>	C	ER & DEO	Before construction

<ul style="list-style-type: none"> <li>• The camp site must be fenced before construction commences; and</li> <li>• Site establishment shall not take place on steep slopes, within wetland areas and sites declared as no-go areas.</li> <li>• All access points, roads and turning areas must be agreed by the engineer and Environmental Control Officer prior to commencement of any construction activities.</li> </ul>			
Adequate parking must be provided for site staff. This must be demarcated so not as to encroach into the surrounding environment.	C	ER & DEO	Duration of Construction Phase
<b>Temporary Fencing</b>			
Fencing off the construction area and keeping all construction vehicles off the undeveloped portions of the buffer areas. Entry into these areas by any person, vehicle or equipment without the ER's written permission will result in a penalty.	C	ER & DEO	Duration of Construction Phase
The Contractor shall erect temporary fencing along the perimeter of the contractor's site camp and designated no-go areas.	C	ER & DEO	Duration of Construction Phase
The Contractor shall maintain in good order all demarcation fencing and barriers for the duration of construction activities, or as otherwise instructed.	C	ER & DEO	Duration of Construction Phase
<b>Topsoil Removal and Stock Piling</b>			
The Contractor shall remove topsoil from all areas where topsoil will be impacted on by construction activities, including temporary activities such as storage and stockpiling areas.	C	ER & DEO	Ongoing
Stripped topsoil shall be stockpiled in areas agreed with by the ER for later use in rehabilitation and shall be adequately protected. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. The depth of the soil may vary and due to this reason the	C	ER & DEO	Ongoing

top 300mm of soil must be removed and preserved as topsoil.			
Topsoil stockpiles shall be convex in shape and no more than 2m high. Stockpiles shall be shaped so that no surface water ponding can take place.	C	ER & DEO	Ongoing
Excess spoil material from topsoil or bulk earthworks must be placed in areas or even removed entirely off site to minimise silt deposition, scouring and soil erosion	C	ER & DEO	Ongoing
The Contractor shall be held responsible for the replacement, at his expense, of any unnecessary loss of topsoil due to his failure to work according to the requirements of this EMP.	C	ER & DEO	Ongoing
Avoid translocating topsoil stockpiles from one place to another or importing topsoil from other sources that may contain alien plants	C	ER & DEO	Ongoing
<b>Workshop, Equipment Maintenance and Storage</b>			
All vehicles and equipment shall be kept in good working order to maximize efficiency and minimise pollution	C	ER & DEO	Ongoing
<b>Storm Water Control</b>			
The implementation of temporary attenuation measures, such as earth berms and cut-off drains to retain surface run-off until the attenuation areas are complete and functional.	C	ER & DEO	Ongoing
Silt screens must be provided at all the grid inlets in order to collect debris and silt during times of heavy rain.	C	ER & DEO	Ongoing
Topsoil must be conserved on site and prevented from entering the stormwater system	C	ER & DEO	Ongoing
Stormwater generated onsite must be channelled to flow on the natural slope of the ground to the lowest point.	C	ER & DEO	Ongoing
<b>Hazardous Substances</b>			
Should any hazardous material/substances (e.g. petrochemicals, paints, etc.) need to be stored on	C	C	Ongoing

the site, it shall be under controlled conditions. All hazardous materials /substances shall be stored in a secured, appointed area that is fenced and has restricted entry. All storage shall take place using suitable, sealable containers to the approval of the ER. These containers must be placed within a bunded area. The floor and wall of the bund area shall be impervious to prevent infiltration of any spilled / leaked material into the soil.			
Material Safety Data Sheets (MSDS's) must be readily available for all chemicals / hazardous substances to be used on site. Where possible and available, MSDS's should include additional information on ecological impacts and measures to minimise and mitigate against any negative environmental impacts in the result of an accidental spillages	C	C/ER	Before commencement of construction
<b>Noise Control</b>			
It must be ensured that noise levels are kept to a minimum during the Construction Phase. All machinery and equipment to be utilized on the site should be fitted with mufflers and must be maintained in good working order to minimise noise levels. It is recommended further that the Contractor encourage construction workers to minimise shouting and hooting on the site.	C	ER & DEO	Ongoing
Construction work should be completed in as short a time frame as possible in order to limit the longevity of the construction impacts.	C	ER & DEO	During construction
The Contractor shall restrict all operations that result in undue noise disturbance to local communities to daylight hours on workdays (Monday to Friday) or as otherwise agreed with the ER.	C	ER & DEO	During construction
The Contractor shall warn any local communities and / or residents that could be disturbed by noise generating activities well in advance and shall keep such activities to a minimum.	C	ER & DEO	During construction
The Contractor shall be responsible for compliance with the relevant legislation with the respect	C	ER & DEO	Ongoing

to noise.			
<b>Waste Management</b>			
All solid waste generated during the construction process (including packets, plastic, rubble, cut plant material, waste metals etc.) must be placed in the waste collection area in the construction camp, where the municipality or appointed waste collection company can collect the waste	C	ER	Ongoing
Burying of waste, rubble on site, or dumping in drainage lines /rivers is strictly prohibited	C	ER	Ongoing
The Contractor shall ensure that all site personnel are instructed on the proper disposal of all waste material.	C	ER	Ongoing
<b>Dust Control</b>			
Construction vehicles shall comply with speed limits and haul distances shall be minimised.	C	ER & DEO	Ongoing
Material loads shall be suitably covered and secured during transportation.	C	ER & DEO	Ongoing
Exposed soils and material stockpiles shall be protected against wind erosion. The location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors.	C	ER & DEO	Ongoing
The Contractor shall implement dust suppression measures (e.g. water spray vehicles, covering material stockpiles, etc.) if and when required.	C	ER & DEO	Ongoing
Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel roads and construction areas if complaints are received regarding dust generation. This is especially pertinent as excessive dust could disturb moving vehicles on adjacent roads, creating a potential traffic hazard.	C	ER & DEO	Ongoing
The Contractor shall ensure that the generation of dust is minimised and shall implement a dust control programme, as necessary, to maintain a safe working environment and minimise nuisance	C	ER& DEO	Ongoing

for surrounding residential areas/dwellings.			
<b>Protection of Fauna and Flora</b>			
The Contractor shall ensure his employees do not undertake any hunting, trapping, shooting, poisoning or other disturbance of any fauna on-site or in the areas surrounding the site	C	ER & DEO	Ongoing
The use of pesticides is prohibited unless approved by the ER.	C	ER & DEO	Ongoing
All vegetation not required to be removed should be protected against damage	C	ER & DEO	Ongoing
Indigenous trees must not be cut; disturbed or removed without a permit from forestry as required by the National Forest Act.	C	ER & DEO	Ongoing
No painting or marking of vegetation to identify locality or other information shall be allowed. Marking shall be done by steel stakes with tags, if required.	C	ER & DEO	Ongoing
No collection of firewood, protected species or medicinal floral species must be allowed by construction personnel.	C	ER & DEO	During Construction
It is recommended that before any construction activities commences, the proposed development site must be investigated for the possible presence of slow moving and sub terrain fauna.	C	ER & DEO	Before Construction
<b>Fire Control</b>			
The Contractor shall ensure that basic fire-fighting equipment is available at all construction activities on site.	C	ER & DEO	Ongoing
The Contractor shall appoint a Fire Officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire.	C	ER & DEO	Ongoing
The Contractor shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire.	C	ER & DEO	Ongoing

<b>Protection of Heritage and Cultural Features</b>			
If any archaeological or paleontological artefacts or remains / graves are uncovered during earthmoving activities, work in the vicinity of the find shall cease immediately. The Contractor shall immediately notify the ER, who shall contact the relevant Competent Authority (SAHRA) who will take appropriate steps.	C	ER & DEO	Ongoing
The Contractor will be required to abide by the specifications as set out by the Competent Authority or the Heritage Specialist appointed.	C	ER & DEO	Ongoing
<b>Environmental Education &amp; Awareness</b>			
It is the Contractors' responsibility to provide the site foreman with no less than 1 hour's environmental training and to ensure that the foreman has enough understanding to pass this information onto the construction staff.	C	ER & DEO	Prior to moving on site
The Contractor / ECO must be on hand to explain any technical issues and to answer questions.	C/ECO	ER & DEO	Ongoing

#### 4.5. OPERATIONAL PHASE

<b>Operational Phase</b>	<b>Responsibility</b>	<b>Occurrence</b>	<b>Method</b>
<b>Water Quality Management</b>			
The Modimolle – Mookgophong Local Municipality must be contacted with regard to any discharge to sewer.	OM	Ongoing	Site inspection
<b>Management of Contaminated Land</b>			
Contaminated land investigations, including soils, groundwater and surface water monitoring and	OM to	Ongoing	Site inspection

<p>sampling to be implemented should impact is observed. This will take into account the source-pathway-receptor (S-P-R) linkages and should serve to determine the nature and extent of any impacts to the receiving environment as a result of site activities. These investigations are to be carried out with consideration of the relevant legal processes. Risk assessment to be undertaken if considered necessary.</p>	<p>outsource as appropriate</p>		
<p>Risk based corrective action (RBCA) to be implemented based on the findings of the site investigations. Remedial plans will be developed based on conceptual site model (CSM) and should consider S-P-R linkages. Remedial actions may include physical, chemical and/or microbiological intervention.</p>	<p>OM to outsource as appropriate</p>	<p>Ongoing</p>	<p>Site remediation</p>
<p>Post-remediation monitoring plan to be implemented to determine effectiveness of remedial actions and serve as an early-warning system for potential re-occurrence.</p>	<p>OM to outsource as appropriate</p>	<p>Ongoing</p>	<p>Ongoing monitoring</p>
<p><b>Drainage Systems</b></p>			
<p>It is recommended that Sustainable Urban Drainage Systems (SuDS) are used to manage stormwater runoff before being discharged into existing internal streets</p>	<p>OM</p>	<p>Ongoing</p>	<p>Site inspection</p>
<p><b>Control of Littering, Waste Storage and Removal</b></p>			
<p>Adequate waste disposal bins must be provided around the township. These are to be regularly emptied and the contents thereof collected by the Local Municipality or an approved Waste Service Provider.</p>	<p>OM</p>	<p>Ongoing</p>	<p>Site inspection</p>



The recycling of waste is encouraged. As such, the provision of separate recycling bins for the disposal of paper, tins and plastic should be erected and displayed in a suitable and visual location on site. A reputable Recycling Waste Company must be appointed to collect recyclable waste (if applicable).	OM	Ongoing	Site inspection
A landfill situated nearest the site must be used to dispose the solid waste. The Modimolle – Mookgophong local municipality must be responsible for collecting and disposing the solid waste	OM	Ongoing	Site inspection
<b>Health and Safety</b>			
Ensure that all staff is trained in what to do in the case of an emergency such as an on-site fire.	OM	Ongoing	Site inspection
Staff personnel are to be trained in first aid.	OM	Ongoing	Site inspection
<b>Fire Control</b>			
Emergency numbers must be displayed with the correct details of the nearest firefighting station at all times.	OM	Ongoing	Site inspection
Ensure that relevant signage e.g. no smoking, is displayed in potentially dangerous areas and is abided by.	OM	Ongoing	Site inspection
<b>Storm Water Control</b>			
Stormwater discharge control must be applied in order to reduce the damaging effect of the increase in runoff due to densification.	OM	Ongoing	Site inspection

#### **4.6. Decommissioning Phase**

At this stage decommissioning is not foreseen in the near future. At the time it might become applicable, an Environmental Impact Assessment must be undertaken in terms of Listed Activity No 31 (i) of R326 of the National Environmental Management Act (No.107 of 1998), as amended; or else compliance with the environmental legislation requirements applicable at that time must take place.

### **5. NONE-COMPLIANCE**

#### **5.1. Procedures**

The Contractor shall comply with the environmental conditions and requirements on an on-going basis and any failure on his / her part to do so will entitle the ER to impose a penalty.

In the event of non-compliance, the following recommended process can be followed:

- The ER shall issue a Notice of Non-compliance to the Contractor, stating the nature and magnitude of the contravention. A copy shall be provided to the ECO during his / her site audit
- The Contractor shall act to correct the non-conformance within 24 hours of receipt of the notice, or within a period that may be specified within the notice
- The Contractor shall provide the ER with a written statement describing the actions to be taken to discontinue the non-conformance, the actions taken to mitigate its effects and the expected results of the actions. A copy shall be provided to the ECO
- In the case of the Contractor failing to remedy the situation within the predetermined timeframe, the ER shall impose a monetary penalty based on the conditions of contract
- In the case of non-compliance giving rise to physical environmental damage or destruction, the ER shall be entitled to undertake or to cause to be undertaken such remedial works as may be required to make good such damage and to recover from the Contractor the full costs incurred in doing so; and
- In the event of a dispute or difference of opinion between any parties arising out of the interpretation of the conditions of the EMP or a disagreement regarding the implementation or method of implementation of conditions of the EMP, any party shall be entitled to require that the issue be referred to specialists for arbitration.

The ER shall at all times have the right to stop work and/or certain activities on site in the case of non-compliance or failure to implement remediation measures.

## **5.2. Offences and Penalties**

Any avoidable non-compliance with the conditions of the EMP shall be considered sufficient ground for the imposition of a penalty. Possible offences, which must result in the issuing of a contractual penalty, include, but are not limited to:

- Unauthorised entrance into no-go areas
- Unauthorised damage to natural vegetation
- Unauthorised camp establishment (including stockpiling, storage etc.)
- Hydrocarbons / hazardous material: Negligent spills / leaks and insufficient storage
- Ablution facilities: Non-use, insufficient facilities and insufficient maintenance
- Late Method Statements or failure to submit Method Statements
- Insufficient solid waste management (including clean-up of litter, i.e., unauthorised dumping)
- Absence of weigh bills as proof of disposal at a DWS registered landfill site
- Erosion due to negligence / non-performance
- Excessive cement / concrete spillage / contamination
- Insufficient fire control and unauthorised fires
- Preventable damage to water courses or pollution of water bodies
- Non-induction of staff.

## **6. CONCLUSION**

In terms of NEMA, everyone is required to take reasonable measures to ensure that they do not pollute the environment. Reasonable measures include informing and educating employees about the environmental risks of their work and training them to operate in an environmentally responsible manner. Furthermore, in terms of NEMA, the cost to repair any environmental damage shall be borne by the person responsible for the damage.

If the above-mentioned management recommendations are adopted, it is anticipated that most of the negative environmental impacts associated with the establishment of the township on a Portion of the Remainder of Portion 3 of the Farm Naboomspruit 348 KR, Limpopo Province can be mitigated against. The appointed ECO will need to regularly monitor the site to ensure that the required environmental controls are in place and working effectively.

# **ANNEXURE A**

## **Environmental Code of Conduct**

The applicant is committed to ensuring that the development of the proposed township is done according to the highest environmental standards so that the ecological footprint of the development is minimised where possible.

The applicant requires that all personnel involved in the operation process accept their responsibilities towards the EMP and the environment. This includes all permanent, contract or temporary workers as well as any other person involved with the project or visiting the site. Ignorance, negligence, recklessness or a general lack of commitment will not be tolerated.

If you do not understand the rules, you must seek assistance to ensure compliance. The following people can assist you in ensuring compliance with the EMP.

**Your Supervisor:** .....

**Environmental Control Officer:**.....

**Project Manager:** .....







# **ANNEXURE E**

## **Environmental Authorisation / RoD**



**ANNEXURE F**  
**DETAILS AND EXPERTISE OF EAP**

**ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED TOWNSHIP  
ESTABLISHMENT ON A PORTION OF THE REMAINDER OF PORTION 3 OF THE  
FARM NABOOMSPRUIT 348 KR, LIMPOPO PROVINCE**

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