



**Proposed 60-sleeper Lodge at the Lion Farm
located within Ekland Safaris, near Louis
Trichardt, Limpopo Province**

13 September 2018

Revision: 0

Reference: 113527

Draft Environmental Management Programme -
Proposed 60-sleeper Lodge at the Lion Farm
located within Ekland Safaris, near Louis Trichardt,
Limpopo Province

Manupont 124 (Pty) Ltd

*Bringing ideas
to life*

Document control record

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Document control		aurecon				
Report title		Draft Environmental Management Programme - Proposed 60-sleeper Lodge at the Lion Farm located within Ekland Safaris, near Louis Trichardt, Limpopo Province				
Document ID		Project number		113527		
File path						
Client		Manupont 124 (Pty) Ltd				
Client contact		Graham Moon		Client reference		Lion Lodge – Draft EMPr
Rev	Date	Revision details/status	Author	Reviewer	Verifier (if required)	Approver
0	13 September 2018	Draft EMPr	AW	AW	JG	JG
Current revision		0				

Approval			
Author signature		Approver signature	
			
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1 NEMA Requirements with Reference to Relevant Sections of this Report

This Draft Environmental Management Programme (DEMP) is submitted for public comment along with the Draft Basic Assessment Report (DBAR), which provides detailed information relevant to the project.

In Table 1, it is illustrated how the structure of the DEMPr addresses applicable requirements for information in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA).

Table 1 | Environmental Impact Assessment Regulations (GN No. 982 of 2014), as amended, for EMP reports

Appendix 4 (1) no.	Content as required in Appendix 4 of the NEMA EIA Regulations GN No. 982, as amended,	Chapter / Section number
a)	Details of–	
	(i) The EAP who prepared the EMP; and	2.1
	(ii) The expertise of that EAP to prepare an EMP, including a curriculum vitae;	Error! Reference source not found. 2.1.2
b)	A detailed description of the aspects of the activity that are covered by the EMP as identified by the project description;	2.2
c)	A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	Appendix C of the Draft BAR
d)	A description of the impact management outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including– <ul style="list-style-type: none"> (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities; 	2.3
e)	<i>Removed by Amendments of 7 April 2017</i>	
f)	A description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraphs (d) will be achieved, and must, where applicable, include actions to– <ul style="list-style-type: none"> (i) Avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) Comply with any prescribed environmental management standards or practices; 	3

Appendix 4 (1) no.	Content as required in Appendix 4 of the NEMA EIA Regulations GN No. 982, as amended,	Chapter / Section number
	(iii) Comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) Comply with any provisions of the Act regarding financial provisions for rehabilitation, where applicable;	
g)	The method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	3.1
h)	The frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	3.1
i)	An indication of the persons who will be responsible for the implementation of the impact management actions;	3.1
j)	The time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	3.1
k)	The mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	3.1
l)	A program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	3.1.2
m)	An environmental awareness plan describing the manner in which— (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and	3.2
n)	Any specific information that may be required by the competent authority.	N/A

2 Introduction

Maunpont 124 (Pty) Ltd is proposing to construct a 60-sleeper lodge on the Lion Farm located within the boundaries of Ekland Safaris, near Louis Trichardt in the Limpopo Province. Guests will be visiting the lodge upon invitation.

The facilities, structures and infrastructure proposed to be constructed comprise of the following:

- Drop-off area (where guests will be dropped off);
- Business centre;
- Recreation centre and central facility with lapa, pool and pond;
- 20 Executive villas;
- 60 Staff units;
- Back of house units (laundry, storage etc), with service delivery entrance;
- Reservoir with a capacity of more than 250kL; and
- Septic tanks with effluent treatment facility.

The Environmental Impact Assessment Regulations, Regulation GN 983 and GN 985 of 2014 (as amended in 2017), promulgated in terms of the National Environmental Management Act (NEMA), list activities which may not commence without a Basic Assessment process and Environmental Authorisation from the competent authority, in this case the Limpopo Department of Economic Development, Environment and Tourism (LEDET). In accordance with the NEMA 107 of 1998, the construction of the above structures and infrastructures requires that a Basic Assessment process is followed in order to apply for Environmental Authorisation.

This application is therefore made to obtain approval for the 60-sleeper lodge proposed at the Lion Farm within the boundaries of Ekland Safaris, near Louis Trichardt.

2.1.1 Contact person and correspondence address of the EAP

Independent EAP	Aurecon South Africa (Pty) Ltd
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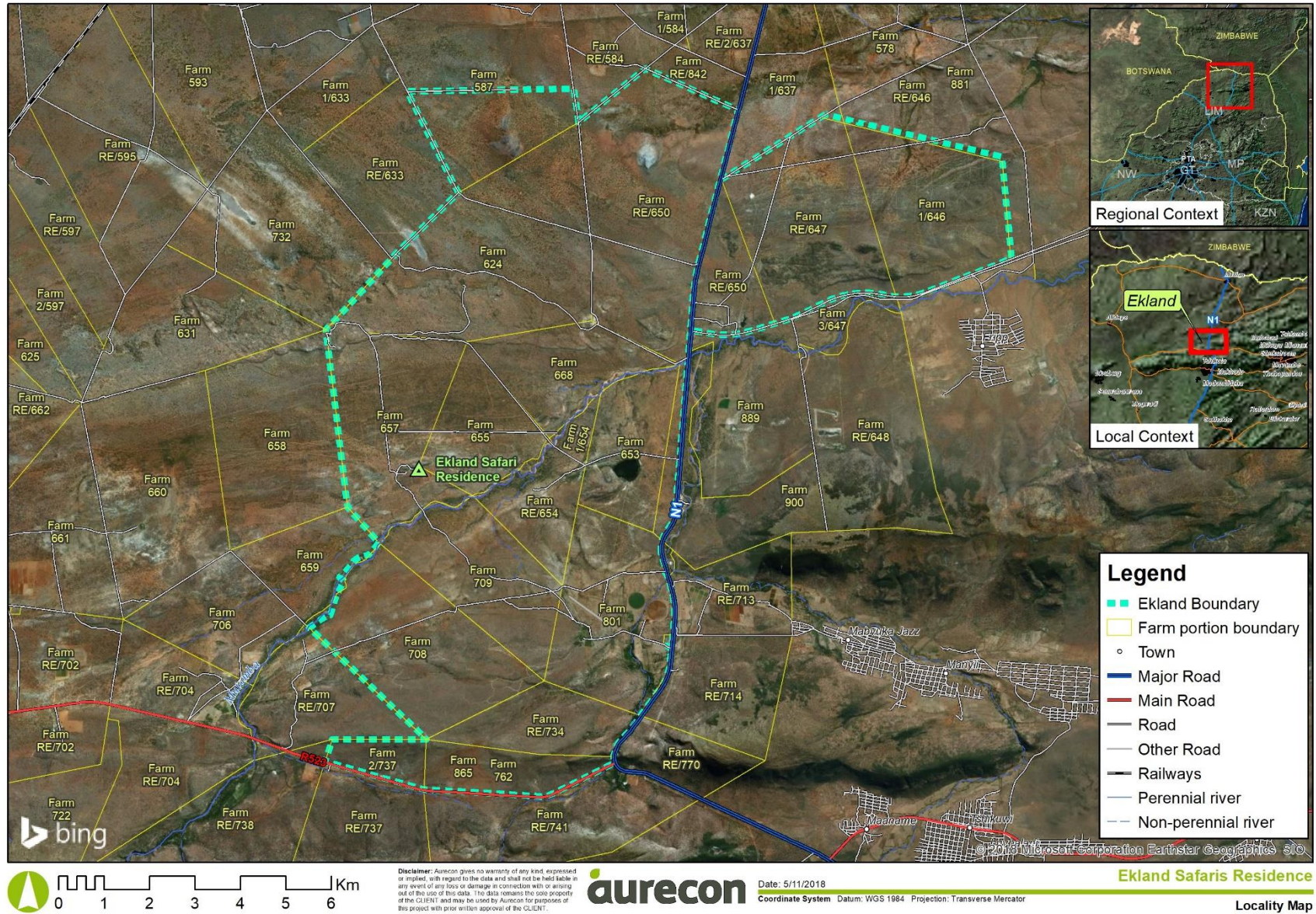


Figure 1 | Location of EklandSafaris within the Makhado Local Municipality, Limpopo Province.

2.1.2 Expertise of the EAP

The Environmental Impact Assessment process is managed by Ms Anne-Mari White, an environmental project leader with Aurecon. She is responsible for the overall management of the project, including client liaison, financial management and progress reporting. Ms White is an Environmental Consultant, who started her studies at the North-West University (NWU) and completed her Bachelor of Science: Environmental Management at the University of South Africa (UNISA) in 2007. In addition to her qualification, she completed short courses in soil classification and wetland delineations (Terrasoil Science), Geographic Information Systems (University of KwaZulu-Natal), and Environmental Impact Assessments (NWU). Ms White's Curriculum Vitae is attached as **Appendix A**

2.2. Description of the aspects of the activity

The aspects of the activities covered in this EMP are discussed in this section according to listed activities and all other relevant activities.

2.2.1 Listed and Specified Activities

Table 2 | Listed and specified activities triggered with the construction of the 60-sleeper lodge

Listed activities	Description of project activity
<p>GN R 983 Activity 12:</p> <p>The development of structures and/or infrastructure with a physical footprint of 100 square meters or more, where such development occurs (a) Within a watercourse.</p>	<p>A drainage line is located within the perimeter of alternative 1 and 3 and construction of some structures and infrastructure are proposed within the boundary of the drainage line.</p>
<p>GN R 983 Activity 19:</p> <p>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from –</p> <p>(i) A watercourse.</p>	<p>More than 10 cubic metres of material (pebbles, rock and sand) will be used and moved within a watercourse during the construction phase</p>
<p>GN R 983 Activity 27:</p> <p>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance is required for –</p> <p>(i) The undertaking of a linear activity; or</p> <p>(ii) Maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>More than 1 hectare of indigenous vegetation will be cleared during the construction of the lodge</p>
<p>GN R 985 Activity 6:</p> <p>The development of resorts, lodges, hotels and tourism or hospitality facilities that sleep 15 people or more within the specific areas identified in the systematic biodiversity or bioregional plans</p>	<p>A 60-sleeper lodge is proposed within an area identified in the systematic biodiversity/bioregional plans as a Critical Biodiversity Area</p>
<p>GN R 985 Activity 2:</p> <p>The development of reservoirs for bulk water supply with a capacity of more than 250 cubic metres:</p> <ul style="list-style-type: none"> • Within Limpopo (iii) outside urban areas, within (dd) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans. 	<p>A reservoir exceeding a capacity of 250 cubic metres will be installed for the storage of potable water</p>

<p>GN R 985 Activity 12:</p> <p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan:</p> <ul style="list-style-type: none"> • Within (a) Limpopo, within (i) critical biodiversity areas identified in bioregional plans. 	<p>More than 300 square meters of indigenous vegetation will be affected by the construction of this lodge.</p>
<p>GN R 985 Activity 14:</p> <p>The development of (xii) infrastructure or structures with a physical footprint of 10 square metres or more where such development occurs within a (a) watercourse</p> <ul style="list-style-type: none"> • Within (a) Limpopo, (ii) outside urban areas, in (ff) critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans. 	<p>A drainage line is located within the perimeter of alternative 1 and 3 and construction of some structures and infrastructure are proposed within the drainage line. A specialist will delineate the extent of the drainage line.</p>

2.3. Description of Impact Management Outcomes

The impacts and risks that are to be avoided, managed and mitigated as identified in the Environmental Impact Assessment (EIA)-process are discussed in this EMPr for the construction and operation activities of the proposed lodge.

2.3.1 Impact Management Outcomes

The impact management measures described in this section have been informed by the independent environmental assessment for the activities proposed. These measures have been proposed to mitigate negative impacts and enhance the positive benefits of the project and to, ultimately, achieve the impact management outcomes:

1. The construction and operation is operated in an environmentally and socially responsible manner;
2. The EMPr prescribes practical measures for the mitigation of impacts identified during the EIA-process;
3. Roles and responsibilities for the environmental management and monitoring of the proposed activities are defined;
4. All employees and its contractors are aware of the environmental impacts of the activities at the site, thus enabling them to take timeous precautions against environmental damage;
5. Pollution or similar events are mitigated effectively; and
6. Regulatory requirements are complied with throughout.

The applicant has a legal obligation to comply with the EMPr and to ensure compliance by its contractors and agents, where applicable.

The EMPr describes mitigation measures designed to minimise or eliminate the significant adverse impacts that may be caused by the construction and operational activities of the lodge. This EMPr should be considered dynamic, as it should be amended if conditions change or more information becomes available.

2.3.2 Management Statement

A commitment is required from the applicant and its contractors in that they shall:

1. Take into consideration the surrounding environment;
2. Always behave professionally on and off site;
3. Ensure quality in all work done, both technical and environmental;

4. Resolve problems and claims arising from damage immediately to ensure an uninterrupted flow of operations;
5. Read and understand this EMPr and use it for the benefit of all involved;
6. Preserve the natural environment by limiting destructive actions on site and by using resources efficiently; and
7. Continually improve their environmental management strategies.

3 Impact Management Actions

This section forms the core of the EMPr. It provides a description of the proposed impact management actions by identifying the manner in which the impact management outcomes contemplated in section 2.3 will be achieved. These actions, outlined in Table 3, are shown for the construction phase throughout the project. It is the responsibility of the applicant to ensure that adequate resources are allocated to the achievement of these actions. It is the responsibility of the Environmental Control Officer (ECO) to ensure that these actions are implemented on a day-to-day basis and to verify contractors' compliance to the EMPr. The time period for the implementation of the EMPr will be throughout the lifetime of the project, or until such time as the EMPr is amended as a result of an environmental audit or if significant activity-changes take place.

Table 3 | Mitigation measures required for activities associated with construction activities of the proposed lodge

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
Ecology	<p>Loss of vegetation and fragmentation of habitat;</p> <p>Loss of important flora communities and individuals;</p> <p>Management of vegetation and habitats;</p> <p>Loss of fauna;</p> <p>Impairment of ecological corridors and functions;</p> <p>Loss and fragmentation of optimal habitat</p>	Site disturbance	<p>Objective(s): Limited disturbance of local ecology, loss of fauna and flora; Limit fragmentation of habitat.</p> <p>Target(s):</p> <ul style="list-style-type: none"> Limit the development footprint to the mixed woodland on the valley floor; Conserve the <i>Androstachys</i> rocky woodland and rocky outcrops by means of a buffer zone – the buffer line is on the outer edge of the <i>Acacia</i> thickets at the foot of the outcrops; The single <i>Acacia erioloba</i> (Camel thorn) must be conserved and a buffer as large as the tree's crown must be implemented; The destruction or relocation of protected trees within the development footprint must be consulted with DAFF from whom permission must be obtained; The potential presence of important herbaceous plants must be investigated by a specialist (during their growth period) before construction and if present these must be managed or relocated per the specialist's recommendation; Woody vegetation may not be collected by construction personnel for firewood; Fires may only be made at designated safe areas and must be supervised at all times; Potential removal of medicinal plants must be monitored; Employ an alien invasive management plan to ensure that invasive vegetation does not establish on site or the surrounding area; 	Site inspections	Monthly	<p>Limited disturbance to the ecology within the project site and no impact on the sensitive rocky outcrops surrounding the development site.</p> <p>Management of alien invasive species.</p>

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
			<ul style="list-style-type: none"> Use only locally available indigenous flora for landscaping purposes; The potential presence of fauna that may be present on the development footprint must be investigated by a specialist before construction and if present these must be managed or relocated per the specialist's recommendation; Snakes, dangerous- and problem animals that may move onto the development area may not be interfered with but must be managed upon specialist recommendation; The development site may be fenced during the operational phase in which case the design must be of such a nature to provide for small animals to pass without being harmed. E.g. electric fences must be of low voltage and life wires be placed so that tortoises, other reptiles, rodents and galagos are not harmed when they come in contact with life wires. A specialist must be consulted on the design to achieve these objectives; Wild animals may not be fed at or near to the Lodge; No artificial methods may be used to attract animals; Waste bins must be scavenger proof; Domestic waste may not be stored for prolonged periods of time; Waste must be disposed of at a permitted site and not on any of the nearby properties; No illumination with bright lights at night outside of the buildings will be allowed as this may disturb animals and will attract insect; 			
Storm water management	Erosion Flooding	Clearance of vegetation on areas prone to erosion Heavy rainfall periods during construction	<p>Objective(s): To mitigate any possible flooding within the drainage basin; Prevent erosion within the construction site.</p> <p>Target(s):</p> <ul style="list-style-type: none"> The contractor must monitor the site and manage drainage of the construction site to avoid standing water and soil erosion. Sand bags must be used in areas that are prone to erosion; Storm water must be diverted away from the development site to prevent accumulation at the centre of the development area. Run-off from the development area may not discharge into the waterhole located south of the development area. The time that stripped areas are exposed must be minimised where ever possible; and 	Site inspections	Monthly	No erosion within the development site Storm water control measures are implemented to divert storm water away from the development area.

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
			<ul style="list-style-type: none"> Top soiling and revegetation must commence immediately after the completion of an activity 			
Ground and Surface water	Ground and surface water pollution	Spillage of hazardous substances Sanitation and waste management	<p>Objective(s):</p> <ul style="list-style-type: none"> To prevent any pollution of ground and surface water resources. <p>Target(s):</p> <ul style="list-style-type: none"> Spillages of any potentially hazardous materials should be cleaned immediately to avoid contamination of runoff; Mixing or decanting of all chemicals and hazardous substances must take place either on a tray or on an impermeable surface; Chemical toilet facilities must be provided to contractors (1 for every 15 workers). These facilities must be located at least 100m from any water resource and must also be placed along the outer edges of the development site area (where altitude is higher); These facilities must be cleaned regularly and be provided with toilet paper; No washing of any equipment, utensils or tools are allowed within any water resource. Due to the drainage basin, washing of equipment and construction vehicles must be done off site; Drip trays must be provided for all stationary construction vehicles and/or mechanical equipment which contains hazardous substances; The conditions contained in the Water Use Licence must be adhered to. 	Site inspections	Daily	No contamination of water resources
Heritage and palaeontology resources	<ul style="list-style-type: none"> Destruction and/or disturbance of heritage or paleontological resources 	Excavation and clearance activities	<p>Objective(s):</p> <ul style="list-style-type: none"> To prevent the destruction/disturbance on heritage or paleontological resources <p>Target(s):</p> <ul style="list-style-type: none"> A Paleontological field assessment is required prior to the commencement of construction activities; Should any graves, heritage resources, archaeological sites or palaeontological finds (fossils) be uncovered during excavation activities, excavations within the immediate vicinity must be stopped, and reported to the ECO immediately, after which a heritage specialist should investigate the find. 	Site inspection	Continuous	No impact on heritage and paleontological resources

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
Waste	<ul style="list-style-type: none"> Soil pollution Littering 	General construction activities	<p>Objective(s):</p> <ul style="list-style-type: none"> To prevent any soil pollution and littering at the site <p>Target(s):</p> <ul style="list-style-type: none"> Spillages of any potentially hazardous materials should be cleaned immediately to avoid soil contamination; Spill kits must be available on site; Mixing or decanting of all chemicals and hazardous substances must take place either on a tray or on an impermeable surface; Sufficient waste bins must be provided and must be scavenger proof; Waste must be disposed of at a permitted site and not on any of the nearby properties; The temporary storage of waste, until it is removed to a registered landfill site, must not be accessible by any wildlife; Daily litter patrol must be done to ensure that all litter is placed within scavenger proof waste bins. 	Site inspection	Daily	No littering on site and no hazardous soil contamination
Traffic	<ul style="list-style-type: none"> Traffic disruptions 	<ul style="list-style-type: none"> Constructing the water pipeline to traverse the N1 	<p>Objective(s):</p> <ul style="list-style-type: none"> To minimise traffic disruptions on the N1. <p>Target(s):</p> <ul style="list-style-type: none"> Construction activities must be planned to minimise the construction timeframe of activities over the N1. Stop and go's should be implemented when the pipeline is constructed underneath the N1 with one lane remaining open for vehicles to pass; The contractor must regulate the flow of traffic and minimise any delays as far as possible; Traffic and warning signs must warn the public of construction activities ahead. 	Visual observation	Daily during the construction of the pipeline over the N1	Minimised traffic disruption.
Dust	Air pollution (Dust created during the construction phase)	<p>Construction activities during windy conditions</p> <p>Clearance of vegetation, movement of construction vehicles</p>	<p>Objective(s):</p> <p>Minimise dust created on site during construction.</p> <p>Target(s):</p> <ul style="list-style-type: none"> Stockpiles should not be higher than 2m; Stockpiles should be covered during windy conditions; 	Daily observation	Daily	No excessive dust at the site and/or surrounding area

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
			<ul style="list-style-type: none"> Dust suppression on access roads within, to and from the site must be implemented. For example, water truck wetting dirt roads to and from the site; Vehicles travelling to and from the construction site must adhere to speed limits so as to avoid producing excessive dust 			
Staff conduct on site	<ul style="list-style-type: none"> Inappropriate behaviour of staff 	During construction activities on site	<p>Objective(s):</p> <ul style="list-style-type: none"> To prevent any unacceptable behaviour from construction employees. <p>Target(s):</p> <ul style="list-style-type: none"> A general regard for the social and ecological well-being of the site and adjacent areas (especially the untransformed areas), is expected of the site staff. Workers need to be made aware of the following general rules: <ul style="list-style-type: none"> No alcohol / drugs to be present on site. No firearms allowed on site or in vehicles transporting staff to / from site, (unless used by security personnel). Prevent excessive noise. Prevent unsocial behaviour. Bringing pets onto the site is forbidden No harvesting of firewood from the site or from the areas adjacent to it Construction staff is to make use of the facilities provided for them, as opposed to ad-hoc alternatives. (e.g.: fires for cooking; the use of surrounding bush as a toilet facility; are forbidden). Trespassing on private / commercial properties adjoining the site is forbidden Driving under the influence of alcohol is prohibited. Capture/snaring of fauna is strictly prohibited 	Daily observation.	Daily	No complaints received regarding the behaviour of construction workers
Socio-economic impact	<p>Social unrest due to use of non-local resources</p> <p>Economic impact on local community if local labour is not used</p>	Employment of non-local resources during the construction phase	<p>Objective(s):</p> <p>To reduce the risk of social unrest due to employment not being sourced locally.</p> <p>Target(s):</p>	Continued validation	Continuous and audited monthly	No social unrest.

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
			<ul style="list-style-type: none"> The contractor should use local suppliers and labour for the construction of the proposed lodge 			
All environmental Health and safety	Various environmental Health and safety impacts	Personnel conduct	<p>Objective: To ensure that personnel adhere to EMPr requirements.</p> <p>Target:</p> <ul style="list-style-type: none"> Induction and/or environmental awareness training must be attended by all parties involved in operation activities of the SOM. Such training must include the requirements of the EMPr as well as the location of sensitive areas of which workers must be aware. A signed register of attendance must be kept as proof. Firefighting equipment must be available in appropriate locations onsite. The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) and the National Building Regulations. Ensure that the handling of equipment and materials is supervised and adequately instructed. Adequate facilities must be available on site for the emergency treatment of staff All environmental incidents should be reported to the ECO, investigated, documented and kept on file. 	-	Whenever new persons enter the site Toolbox talks to take place whenever it is observed that EMPr requirements are not adequately adhered to by personnel	Records of toolbox talks undertaken regularly or as necessary Firefighting equipment functioning

Table 4 | Mitigation measures required for activities associated with operation activities of the proposed lodge

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
Biodiversity	Management of vegetation and habitats;	Improper management of alien invasive plant species	<p>Objective(s): No alien invasive plant species within the development footprint.</p> <p>Target(s):</p> <ul style="list-style-type: none"> Employ an alien invasive management plan to ensure that invasive vegetation does not establish on site or the surrounding area; 	Site inspections	As and when needed	Alien invasive species are controlled and eradicated.
Storm water management	Erosion Flooding	Heavy rainfall periods	<p>Objective(s): To mitigate any possible flooding within the drainage basin; Prevent erosion within the development site.</p> <p>Target(s):</p> <ul style="list-style-type: none"> A well-engineered storm water management plan must be drafted and implemented to divert storm water away from the centre of the development site and prevent any possible flooding; Storm water structures must be constructed at areas that are prone to erosion. Areas surrounding the development site (especially the area to the north of the development site), must be vegetated to reduce the possibility of erosion. 	Site inspections	As and when required	No erosion within the development site Storm water control measures are implemented to divert storm water away from the development area.
Ground and Surface water	Ground and surface water pollution	Spillage of hazardous substances Sanitation and waste management	<p>Objective(s):</p> <ul style="list-style-type: none"> To prevent any pollution of ground and surface water resources caused by ineffective treatment and disposal of effluent. <p>Target(s):</p> <ul style="list-style-type: none"> Effluent treatment plant and septic tanks must be serviced and monitored on a regular basis; The conditions contained in the Water Use Licence must be adhered to. 	Site inspections	Monthly	No contamination of water resources
Waste	<ul style="list-style-type: none"> Soil pollution Littering 	General operational activities	<p>Objective(s):</p> <ul style="list-style-type: none"> To prevent any soil pollution and littering at the lodge <p>Target(s):</p> <ul style="list-style-type: none"> Spillages of any potentially hazardous materials should be cleaned immediately to avoid soil contamination; 	Site inspection	As and when required	No littering on site and no hazardous soil contamination

Aspect	Potential Impact	Activity	Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation	Monitoring Method	Frequency of Monitoring	Performance Indicator
			<ul style="list-style-type: none"> Waste must be disposed of at a permitted site and not on any of the nearby properties; The temporary storage of waste, until it is removed to a registered landfill site, must not be accessible by any wildlife; 			
Socio-economic impact	<p>Social unrest due to use of non-local resources</p> <p>Economic impact on local community if local labour is not used</p>	Employment of non-local resources during the operational phase	<p>Objective(s): To reduce the risk of social unrest due to employment not being sourced locally.</p> <p>Target(s):</p> <ul style="list-style-type: none"> The contractor should use local suppliers and labour for the operation of the proposed lodge 	Continued validation	As and when required	No social unrest.

3.1. Mechanisms for Monitoring Compliance with Impact Management Actions

3.1.1. Monitoring of Change in Baseline

The objective of the environmental monitoring system (Table 4) is to:

- Prevent and/or minimise the environmental impact associated with the construction and operational activities;
- Ensure conformance with the environmental objectives;
- Ensure timeous implementation of the environmental strategies and implementation programme;
- Act as a pollution early-warning system;
- Check compliance with license requirements; and
- Ensure consistent auditing and reporting protocols.

Table 4 | Environmental Monitoring Programme for the SOM

Aspect	Issue	Purpose	Monitoring points	Frequency	Sampling Method	Variables
Biodiversity / Land use management	Soil erosion	To pro-actively identify soil erosion to rectify prior to serious degradation	Clean water channels / discharge point	Routinely (monthly)	Field survey	-
	Alien vegetation	To monitor conformance with alien vegetation programme	Lodge perimeter	Monthly (during eradication programme)	Survey	Area (hectares)
Waste	Waste generation and management	To determine volume of waste generated and disposed	Site	Weekly	Contractor report	Waste types
Groundwater and surface water	Groundwater and/or surface water pollution	To monitor septic tanks as well as the quality of effluent treated in order to prevent any ground water of surface water pollution	Effluent treatment plant outlet Monitoring points as stipulated within the WUL	Quarterly	Water quality testing	As per the WUL

3.1.2. Performance Auditing and Reporting

In order to ensure compliance with the EMPr and WUL, the following is committed:

- Conduct the performance assessment and monitoring of the EMPr / WUL on an ongoing basis.
- Compile and submit to the LEDET a report on the performance assessment of the EMPr.

- Compile and submit to the DWS a report on the performance assessment of the WUL in accordance with the conditions set in the WUL.
- The performance assessments of the EMP / WUL and the compilation and submission of the reports will occur biennially (every 2 years) from the date of approval.
- Manupont 124 (Pty) Ltd will appoint a responsible person(s), in writing, who will monitor all environmental aspects of the operations on a regular basis.

Mechanisms and responsibilities for implementation of the Impact Management Actions to ensure compliance with the EMPr / WUL are shown in Table 5.

Table 5 | Mechanisms and responsibilities for implementation of Impact Management Actions

Source Activity	Impacts Requiring Monitoring Programmes	Functional Requirements for Monitoring	Roles and Responsibilities	Monitoring and Reporting Frequency	Period for Implementation
Impact on biophysical environment as a result of activities conducted	Biophysical environment	Implementation of environmental monitoring programme	Environmental department in line with the recommendations by the specialists	Annual review of monitoring programme or if major change in operations	Ongoing / Operational phase
Impact on biophysical and social environment as a result of activities conducted	Biophysical and social environment	Implement internal environmental awareness programme	Lodge Manager	Ongoing review Include in annual induction programme	Ongoing / Operational phase
Vegetation clearing and rehabilitation	Encroaching / spreading of alien vegetation	Initiate alien vegetation programme	Lodge Manager	Annual review	Ongoing / Operational phase
Impact on aquatic systems and drainage lines	Aquatic systems and drainage lines	Maintenance of clean and dirty water system	Applicant with the assistance of a qualified engineer and environmental officer	After a large rain event	Ongoing / operational phase
EMPr / WUL Compliance Review	All impacts described in the EMP	Internal review of compliance, conformance to environmental objectives and strategies and the implementation thereof	Environmental Officer HSEC committee	Annually	Ongoing / operational phase
EMPr / WUL Compliance Review	All impacts described in the EIA report	EMPr performance assessment to determine conformance with the EMPr, including effectiveness and appropriateness of EMPr	External appointment	Biennially (every 2 years)	Ongoing / operational phase

3.2. Environmental Awareness Plan

3.2.1. Manner in Which the Applicant Intends to Inform His or Her Employees of Any Environmental Risk Which May Result from Their Work

Environmental Awareness on Site

All employees of the applicant, as well as contractor teams involved in work at Ekland Safaris, are to be briefed on their obligations towards environmental controls and methodologies in terms of this EMPr. It is recommended that the briefings take the form of an onsite talk and demonstration by the Contractor's Environmental Control Officer (ECO). The education/awareness programme should be aimed at all levels of management and workers within the contractor team. All new employees arriving on site shall undergo this training. Environmental induction must be done according to the applicant's Environmental Management System (EMS) and must include all aspects of the site specific EMPr.

Toolbox talks are to be used as a tool for continuous training of employees. Toolbox talks must be conducted in an interactive way to ensure that employees understand the content and purpose of the specific EMPr requirements. Relevant environmental site matters, incidents and issues shall form part of the Contractor's toolbox talks. The Contractor shall record the environmental subjects discussed.

An effort must be made by the applicant/contractor to assess the training needs of workers on site. Cognisance must be taken of the specific work to be undertaken at the time and, if necessary, additional training on environmental requirements must be conducted to ensure all workers understand the risks involved as well as how to adequately implement mitigation measures.

A signed register documenting all employees' environmental training and awareness programmes must be kept on record for verification purposes.

Recordkeeping

The contractor is responsible for maintaining all records in relation to the EMPr requirements on site. Such records must be made available to the ECO on request during monthly audits, as well as at any time as requested by the ECO, auditor or project managers. Recordkeeping must be done in an orderly fashion with the intent of ensuring easy reference.

3.2.2. Manner in Which Risks Will Be Dealt with in Order to Avoid Pollution or Degradation of the Environment

The following documents will be used as reference for identifying and managing impacts:

- Approved EMPrs; and
- Approved EAs and WUL's;

The applicant and contractors will be responsible for the implementation of the required mitigation measures in order to avoid pollution or degradation of the environment. Appropriate implementation of the recommended mitigation measures specified in the EMPr will be monitored through regular site audits by an ECO.



*Bringing ideas
to life*

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