



Submitted to: Gondwana Collection Namibia (Pty) Ltd  
Attention: Mr. Quintin Hartung  
P.O. Box 80205  
Windhoek  
Namibia

## REPORT:

# ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR PALMWAG LODGE, KUNENE REGION, NAMIBIA

PROJECT NUMBER: ECC-62-669-REP-02-A

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**ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:**

We welcome any enquiries regarding this document and its content. Please contact:



Environmental Compliance Consultancy (Pty) Ltd  
PO Box 91193, Klein Windhoek, Namibia  
Tel: +264 81 669 7608  
Email: [info@eccenvironmental.com](mailto:info@eccenvironmental.com)

## Quality Assurance

### Authors:



Samuel Shinyemba  
Environmental Compliance Consultancy

### Checked By:



Carlene Baufeldt  
Environmental Compliance Consultancy

### Approved By:



Jessica Bezuidenhout  
Environmental Compliance Consultancy

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**ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
%	percentage
>	greater than
All	Antigua Island Investments (Pty) Ltd
APU	anti-poaching unit
DEAF	Department of Environmental Affairs and Forestry
DWA	Department of Water Affairs
DWNP	Directorate of Wildlife and National Parks
EAP	environmental assessment practitioner
EHRA	Elephant-Human Relations Aid
ECC	Environmental Compliance Consultancy (Pty) Ltd
EMA	Environmental Management Act, No. 7 of 2007
ESI	Environmental and Social Impact
ESIA	environmental and social impact assessment
ESMP	environmental and social management plan
GCN	Gondwana Collection Namibia (Pty) Ltd
GIS	geographic information system

<b>Abbreviation</b>	<b>Description</b>
Gondwana	Gondwana Collection Namibia (Pty) Ltd
GPS	geographic positioning system
ha	hectare
HR	human resources
i.e.	that is
km	kilometre
km/h	kilometre per hour
kWp	kilowatt peak
L	litre
Ltd.	limited
m <sup>3</sup> /day	cubic metre per day
MAFWLR	Ministry of Agriculture, Fisheries, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MIME	Ministry of Industries, Mines and Energy
MLIREC	Ministry of Labour, Industrial Relations and Employment Creation
MSDS	material safety data sheet
NHC	National Heritage Council
NTB	Namibia Tourism Board
NW	northwest
PCA	Palmwag Concession Area
PPE	personal protective equipment
Pty	proprietary
SOP	standard operating procedure
SRT	Save the Rhino Trust

# 1 INTRODUCTION

## 1.1 PROJECT BACKGROUND

Environmental Compliance Consultancy (Pty) Ltd (ECC) has been engaged by Gondwana Collection Namibia (Pty) Ltd (GCN) (hereafter referred to as “Gondwana” or “the Proponent”) to revise the environmental and social management plan (ESMP) and compile the environmental clearance certificate renewal application for the continued management and operation (operational phase) of Palmwag Lodge, Kunene Region, Namibia.

Palmwag Lodge is located approximately 165 km northwest (NW) of Khorixas and can be accessed via the C43 gravel road (Figure 1).

## 1.2 DEVELOPMENT AND MANAGEMENT OF PALMWAG LODGE

Since the late 1980s, the Palmwag Concession Area has been leased to various tourism operators. Following the establishment of communal conservancies in Namibia, the Anabeb, Sesfontein and Torra conservancies were awarded a 20-year head concession contract by the Ministry of Environment, Forestry and Tourism (MEFT), which granted them the rights to manage the area, and formally collaborate with tourism operators through signed agreements.

The conservancies, on 30 October 2012 jointly signed a 20-year agreement with Antigua Island Investments (Pty) Ltd (All), which granted them the following exclusive rights:

- To develop, operate, manage, maintain and upgrade the Palmwag Lodge, campsite and fuel station (equipped with fuel storage tanks installed below ground);
- To erect, operate and maintain one temporary satellite camp within the Palmwag Lodge portion of the concession area;
- To retail trade in the Palmwag Lodge portion of the concession area; and
- To use the existing Palmwag airstrip located within the Etendeka concession.

In 2019, Gondwana assumed full ownership of Palmwag Lodge (i.e. all its assets and tourism activities). All contractual agreements were transferred to Gondwana and remain in effect. The lodge’s management and operations align with Gondwana’s corporate tourism policies, eco-tourism principles and wildlife conservation strategies management practices. This has been achieved through collaborative engagement with the neighbouring communal conservancies, the Ministry of Environment, Forestry and Tourism (MEFT) through the Directorate of Wildlife and National Parks (DWNP) and conservation-focused organisations, such as the Save the Rhino Trust (SRT).

### 1.3 CURRENT LODGE OPERATIONS

The lodge has undergone significant upgrade and renovations over the year. Currently, the lodge comprises twenty-four (24) modern guest rooms and eight (8) fully furnished luxury tented camps (locally referred to as Camping2Go). Supporting infrastructure includes the following: the reception block with curio shop, a bar, kitchen, restaurant, kitchen, swimming pools, laundry facilities, workshop, ablution facilities and staff accommodation. In addition to accommodation facilities, the lodge has an on-site fuel station that supplies fuel to the lodge's vehicle fleet and passing motorists.

The Palmwag Concession Area is a vast conservation region and covers approximately 582 000 hectares (ha). Its unique landscape and abundant wildlife population presents opportunities for a range of recreational activities beyond lodging. To enhance the guests' experiences, the lodge offers the following recreational activities:

- Guided hike excursions;
- Guided morning or day field/nature walks;
- Guided rhino tracking excursions; and
- Guided nature/sundowner drives.

The lodge is energy self-sufficient (not connected to an off-grid substation). An 80-kilowatt peak (kWp) solar power plant has been installed and supplies energy required for different operational activities.

Water required for lodge operations is sourced from two (2) groundwater boreholes. The water is pumped via pipelines to six (6) 5000 litre (L) tanks from where it is distributed to various lodge work areas.

Wastewater is collected through a conventional gravity-fed sewage system and directed to a central collection chamber where it is treated to reduce environmental contamination. The water is then reused in the garden.

The on-site fuel station supplies fuel to the lodge's vehicle fleet and passing motorists. A fuel retail certificate issued by the Ministry of Industries, Mines and Energy (MIME) is in place for this.

### 1.4 ENVIRONMENTAL REGULATORY REQUIREMENTS

Tourism development activities are listed activities under the Environmental Management Act, No. 7 of 2007 (EMA) and its 2012 Regulations. As such, an environmental clearance certificate must be obtained from the Department of Environmental Affairs and Forestry (DEAF) to ensure that the lodge operations remain compliant with applicable environmental legislations, standards and best practices. In addition to this, the lodge is required to be

registered with the Namibia Tourism Board (NTB) and in accordance with the Water Resources Management Act No. 11 of 2013 have licences in place, which are obtained from the Department of Water Affairs (DWA) for the abstraction and use of water from existing boreholes, as well as for the operation of a wastewater treatment facility. This ESMP has been revised and updated in terms of the requirements of the EMA and its 2012 Regulations.

The environmental clearance certificate for lodge was issued by the Ministry of Environment, Forestry and Tourism (MEFT) on 30 November 2020 and expired on 30 November 2023. A renewal of the certificate is required.

The lodge currently does not have abstraction and water use licences. These licences are required to ensure compliance with the Water Resources Management Act No. 11 of 2013 and its Regulations of 2023.

The lodge also currently does not have a wastewater treatment, effluent discharge and reuse licence. The licence is required to ensure compliance with the Water Resources Management Act No. 11 of 2011 and its 2023 Regulations.

A fuel retail certificate for the on-site fuel station is in place. No renewal is required of the certificate is required. However, the lodge requires a consumer installation certificate for the bulk storage and dispensing of fuel on-site.

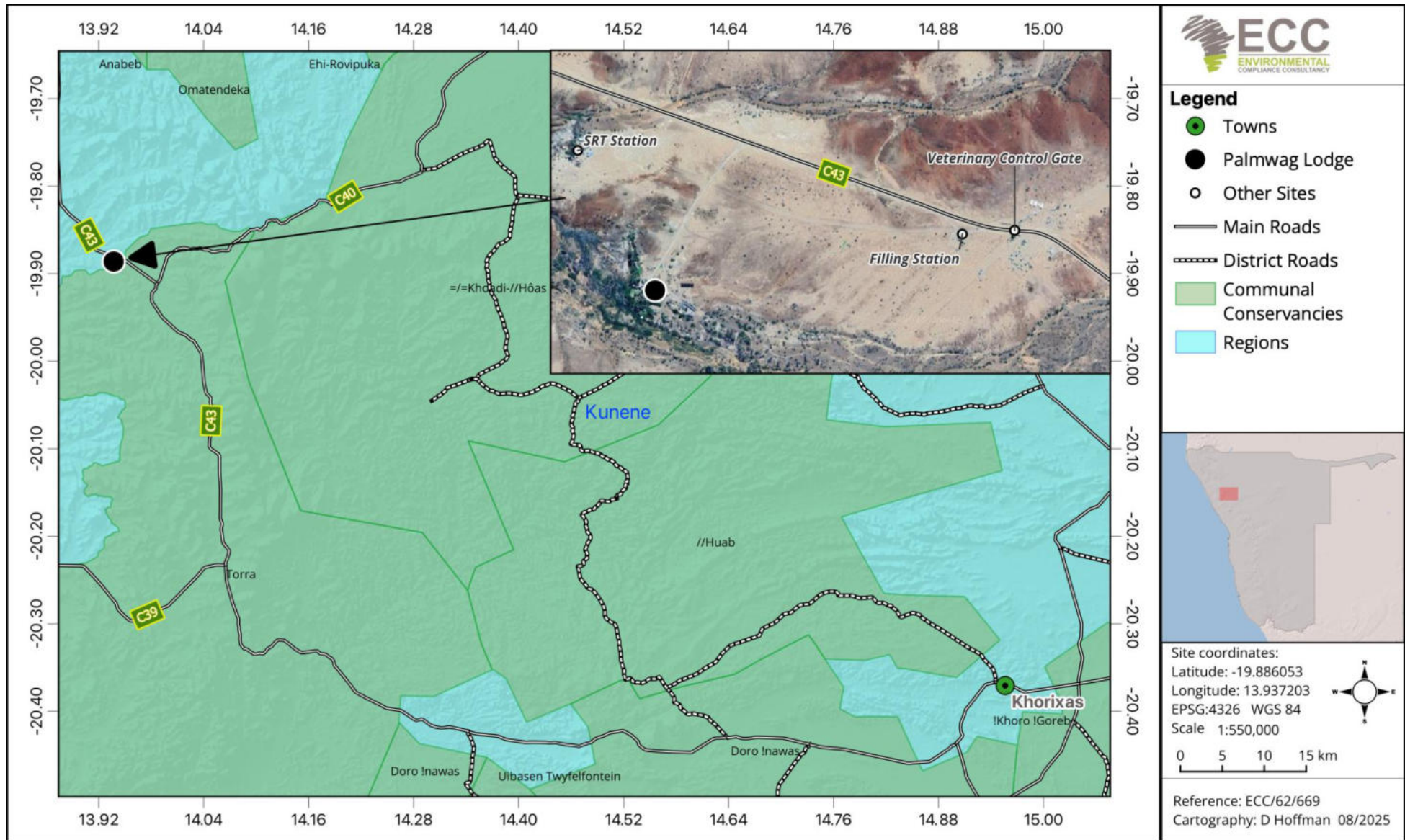


Figure 1 - Location of Gondwana Palmwag Lodge and neighbouring communal conservancies

## 1.5 PURPOSE OF THIS REPORT

This ESMP provides a logical framework, mitigation measures, management strategies and monitoring requirements for the lodge operations and associated activities. This ensures that the potential environmental impacts are curbed and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled. Outlined in the ESMP are the protocols, procedures and roles and responsibilities to ensure the management arrangements are effectively and appropriately implemented.

This ESMP is a live document and shall be reviewed at pre-determined intervals, and or updated when or if the scope of work alters, when information is added or when unforeseen environmental and social impacts have been identified. All lodge staff members and any appointed contractor and their subcontractors will be legally required to comply with the requirements set out in this ESMP, once approved by the Ministry of Environment, Forestry and Tourism (the competent authority), along with the renewal of the environmental clearance certificate for the lodge.

## 1.6 MANAGEMENT OF THIS ESMP

Gondwana's Environmental and Social Impact (ESI) department and management of Palmwag Lodge will hold the environmental clearance certificate for the Project and will be responsible for the implementation and management of this ESMP. The implementation and management of this ESMP, and thus the monitoring of compliance, will be undertaken through daily duties and activities, as well as monthly inspections. All Project personnel throughout all Project phases are expected to comply with the requirements stipulated in this ESMP.

## 1.7 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS RELATED TO THIS ESMP

Where there is any conflict between the provisions of this ESMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, Project approval conditions, permits, standards, guidelines and relevant laws), the contract should be amended, and statutory requirements are to take precedence.

The information presented in this ESMP is based on current lodge operational activities. When the design or operations method changes, this ESMP will need to be updated, and additional assessment may be required.

## 1.8 ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

This report has been prepared by Environmental Compliance Consultancy (Pty) Ltd (ECC) (Reg. No. 2022/0593) on behalf of the Proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the Proponent and has no financial interest in the Project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision.

ECC members or employees are not, and do not intend to be, employed by the Proponent, nor do they hold any shareholding in the Project. Personal views expressed by the writer may not reflect ECC or its client's views. The environmental report's information is based on the best available data and professional judgment at the time of writing. However, please note that environmental conditions can change rapidly, and the accuracy, completeness, or currency of the information cannot be guaranteed.

All compliance and regulatory requirements regarding this report should be forwarded by email or posted to the following address:

Environmental Compliance Consultancy (Pty) Ltd  
PO Box 91193, Klein Windhoek, Namibia  
Tel: +264 81 669 7608  
Email: [info@eccenvironmental.com](mailto:info@eccenvironmental.com)

## 2 ENVIRONMENTAL MANAGEMENT FRAMEWORK

### 2.1 OBJECTIVES AND TARGETS

The lodge is in a pristine ecological environment, with abundant wildlife populations, including desert adapted elephants. To prevent and mitigate potential negative environmental and social impacts, specific environmental objectives and targets have been developed. These have been developed to ensure that all lodge activities are conducted in a manner that minimise potential impacts on both the receiving environment and surrounding social receptors.

The overall environmental and social objectives for the Project are as follows and must align with Gondwana's strategic corporate environmental and social objectives:

- Manage waste efficiently and reduce the potential for environmental pollution;
- Use natural resources effectively and efficiently;
- Alignment with established environmental policies and guidelines;
- Resolve complaints received from the surrounding community through effective grievance resolutions mechanisms;
- Minimal interruptions and interactions with wildlife populations and their natural corridors; and
- Engage in eco-tourism initiatives and best environmental practices throughout the Project's lifespan.

### 2.2 ORGANISATIONAL STRUCTURE, ROLES AND RESPONSIBILITIES

The Proponent shall be responsible for:

- Ensuring that all lodge staff members, any appointed contractor, subcontractors and visitors (including tourists) comply with the procedures set out in this ESMP;
- Ensuring that all personnel receive adequate supervision and instruction to effectively fulfil the requirements stipulated in this ESMP;
- Ensuring that any person allocated specific environmental responsibilities is formally notified of their appointment and confirms that their responsibilities are clearly understood;
- Monitoring and evaluating the implementation of the ESMP to ensure continuous improvement and compliance throughout the lodge operational phase;
- Keeping records of environmental incidents, corrective actions, training and induction activities for audit and reporting purposes;
- Promoting a culture of environmental awareness and accountability among all staff and visitors through ongoing communication and engagement; and
- Upholding the lodge's reputation by ensuring timely reporting of environmental incidents to the relevant authorities.

Table 1 outlines the key roles and responsibilities assigned to Project team members tasked with executing Project activities in compliance with the ESMP requirements.

**Table 1 - Project team roles and responsibilities**

Role	Responsibilities and duties
Proponent (Gondwana)	<ul style="list-style-type: none"> <li>- Responsible for the overall management and implementation of this ESMP;</li> <li>- Ensure site specific environmental policies are drafted/updated and communicated to all personnel employed at the lodge;</li> <li>- Responsible for providing the resources required to effectively run operations and comply with the ESMP; and</li> <li>- Appoint all managers and supervisors required to ensure effective running of operations.</li> </ul>
Appointed Lodge manager	<ul style="list-style-type: none"> <li>- Responsible for overseeing and supervising lodge operations and ensuring compliance with this ESMP;</li> <li>- Ensure all personnel are aware of the commitments made in the ESMP and statutory licence conditions;</li> <li>- Responsible for the overall management and revision of this ESMP. The frequency of review and updates shall be determined based on any material changes to the Project scope or other relevant developments;</li> <li>- Ensure adequate resources are made available for lodge staff to effectively implement commitments made in this ESMP;</li> <li>- Schedule environmental awareness/management training and inductions for all employees;</li> <li>- Ensure that best environmental practices are implemented throughout the Project lifecycle;</li> <li>- Receiving, recording and responding to community complaints; and</li> <li>- Report any non-compliance or accidents to stakeholders and regulatory authorities (e.g. MEFT, Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR), Ministry of Labour Industrial Relations and Employment Creation (MLIREC) and National Heritage Council (NHC)).</li> </ul>
Lodge supervisor(s)	<ul style="list-style-type: none"> <li>- Overseeing the execution of operational activities carried out by personnel under their supervision to ensure works remain compliant to this ESMP;</li> <li>- Report any non-compliance or accidents to the Lodge manager; and</li> </ul>

Role	Responsibilities and duties
	<ul style="list-style-type: none"> <li>- Allocating adequate resources to promote a safe and healthy working environment.</li> </ul>
Lodge employees, Contractors and subcontractors and	<p>Responsible to comply with this ESMP throughout the Project lifecycle, in addition to:</p> <ul style="list-style-type: none"> <li>- Demonstrating an understanding of the ESMP, including its content and requirements;</li> <li>- Attending briefings, training and toolbox talks on specific environmental matters;</li> <li>- Report any operational activities that deviate from the ESMP; and</li> <li>- Timely implement corrective or remedial actions as directed by the Lodge manager or Lodge supervisors.</li> </ul>
Gondwana’s Environmental and Social Impact department	<ul style="list-style-type: none"> <li>- Ensure that lodge staff are adequately trained on environmental topics and are fully aware of potential risks, including those arising from changes in technology and working environment;</li> <li>- Responsible for reviewing environmental legislation, policies and regulations to ensure lodge operations align with changes to these policies and amendments thereof; and</li> <li>- Ensure that this ESMP is updated regularly or as required to ensure lodge operations align with statutory requirements and best environmental practices.</li> </ul>

### 2.3 CONTRACTORS AND SUBCONTRACTORS

Contractors and their subcontractors contracted by the Proponent for any mechanical or maintenance repairs during the operational phase must be compliant with this ESMP and shall be responsible for the following:

- Undertake activities in accordance with this ESMP, as well as relevant policies, procedures, management plans, method statements, licences and contract obligations;
- Implement effective environmental and safety management measures;
- Adopt environmental best practices to ensure the preservation of the receiving environment and minimise potential environmental impacts to the greatest extent possible;
- Report environmental issues, including actual or potential environmental incidents and aspects, to Gondwana’s environmental department, Lodge manager and supervisors;
- Cooperate fully with environmental inspections, audits and monitoring activities conducted by Gondwana’s Environmental and Social Impact department, Lodge manager, Lodge supervisor or regulatory authorities;

- Ensure that employees under their employment are made aware of, and comply with the requirements of this ESMP; and
- Ensure that appropriate corrective or remedial actions are implemented to address all environmental aspects and incidents. Lessons learnt should always be documented for future reference and continuous improvement.

## 2.4 WORKFORCE COMPETENCY

All personnel working on the Project shall be competent to perform tasks that have the potential to cause an environmental impact. In this instance, competence is defined in terms of appropriate vocational and hospitality education, specialised skill sets and work experience.

Gondwana must comply with the Republic of Namibia's Regulations for Labour, Health and Safety and any subsequent amendments to these Regulations. The following conditions, amongst others must be complied with:

- All Project personnel shall be provided with the necessary and appropriate personal protective equipment (PPE);
- Should foreign workers be hired, the Proponent shall ensure that they have valid work permit(s) at all times;
- Occupational health and safety protocols are to be enhanced throughout the Project lifecycle;
- Regular refresher training courses shall be conducted to reinforce health and safety and environmental responsibilities; and
- All Project personnel shall undergo an induction course covering environmental awareness, occupational safety procedures and site-specific risks and impacts before commencing work.

## 2.5 EMPLOYMENT

Gondwana's People Team (Human Resource) department shall comply with the following:

- In collaboration with local government, community authorities and their recruitment mechanisms, ensure that local people have access to information regarding job opportunities;
- The number of job opportunities shall be made known together with the associated skills and required qualifications;
- The maximum expected duration of the job, whether temporary or permanent, shall be indicated;
- Foreign workers with no proof of permanent legal residence and work permit shall not be hired; and
- All employees hired must be issued valid employment contracts specifying their position, assigned duties and hourly remuneration (in accordance with the wage standards stipulated in the Wage Order Setting the National Minimum Wage for Employees (Government Notice 218 of 2024).

### **3 COMMUNICATION AND AWARENESS**

To ensure potential environmental impacts are minimised, it is important that lodge personnel are appropriately informed and briefed on how to properly implement the ESMP. It is also important that regular communication is maintained with stakeholders and regulatory authorities (i.e. surrounding tourism operators, SRT, NHC, MEFT and MAFWLR). This section outlines the framework for communication related to the implementation of the commitments that are specified in this ESMP.

#### **3.1 INTERNAL COMMUNICATION**

The Lodge manager and Lodge supervisor(s) shall communicate site-wide environmental issues to the lodge team through the following means (as and when required):

- Site notices;
- WhatsApp group (or preferred social communication mobile application tool);
- Daily, weekly and monthly briefings;
- Instructions on incident response procedures; and
- Briefing on key social and environmental issues.

This ESMP shall be distributed to the lodge team (including contractors and subcontractors, when hired for any mechanical repairs or lodge upgrade work) to ensure that the environmental requirements are adequately communicated. The key activities and environmentally and socially sensitive operations must be highlighted clearly to workers and contractors, in English and their local language, where required.

Effective communication must be maintained and should include procedures for receiving, logging and resolution of complaints, the non-conformances with this ESMP observed and remediation/corrective actions required.

##### **3.1.1 TRAINING AND ENVIRONMENTAL AWARENESS**

All lodge personnel must be competent to perform tasks to avoid potential negative environmental impact. Competence is defined in terms of appropriate education, training and work experience. When it has been determined that certain skills are lacking, training and refresher courses must be offered to the workforce. The Lodge manager and Lodge supervisor(s) must ensure records of these training sessions are always kept on-site and filed.

#### **3.2 EXTERNAL COMMUNICATION**

The Lodge manager shall represent the Project and shall liaise with external regulatory authorities (e.g. MEFT, NTB, NHC and MAFWLR), neighbouring communal conservancies (e.g. Sesfontein, Anabeb, Omatendeka, Torra and #Khoadi-//Hôas), nature conservation organisations (e.g. SRT and EHRA) and community representatives. This will ensure good working relations with the stakeholders and compliance with all relevant conservation regulations, Project approved licences and permits.

3.2.1 ENVIRONMENTAL EMERGENCY AND RESPONSE

An emergency is any abnormal event, which demands immediate attention. It is any unplanned event, which results in the temporary loss of management control at a site, but where functional resources can manage the response. An emergency response plan must be in place by the Proponent that manages the response in relation to emergencies, including environmental emergencies.

Table 2 provides a list of numbers to be contacted in case of an emergency.

**Table 2 - Emergency contact details**

Town	Ambulance	Police	Fire brigade
Kamanjab	+264 67 330031	+264 67 10111	+265 67 330051

All wildlife crimes must be promptly investigated and reported to communal conservancy management committees, nature conservation groups and the MEFT. SRT must also be informed about any rhino poaching incident. All human-wildlife conflicts and poaching incidents related to the desert adapted elephants must be reported promptly to the Elephant-Human Relations Aid (EHRA).

Should there be large-scale fuel spills (i.e. > 200 litres), including fuel spillage from the fuel station tanks, the Ministry of Industries, Mines and Energy (MIME) must be notified by completing form PP/11 (telephone: +264 61 284 8111).

3.2.2 COMPLAINT HANDLING AND RECORDING

Any complaints received verbally by any lodge personnel shall be recorded by the receiver including:

- The name of the complainant;
- The contact details of the complainant;
- Date and time the complainant was received; and
- The nature of the complaint.

The information shall be provided to the Lodge manager who is overall responsible for managing complaints. The Lodge manager must address the complaints by following these measures:

- Record the complaint in the complaint register; and
- Provide a written response to the complainant of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken, the reasons why are to be recorded in the register.

The lodge team shall be informed about the complaints register, its location and the person responsible, to refer tourists or the public who wish to lodge a complaint. The complaints register shall be kept for the duration of the Project and must be available for government or public review, upon request.

## **4 REPORTING, COMPLIANCE AND ENFORCEMENT**

### **4.1 ENVIRONMENTAL PERFORMANCE MANAGEMENT**

This section outlines the overall monitoring commitments required for implementation during the operational and decommissioning phase of the Project. It details procedures to ensure routine inspections and audits are conducted to ensure that Project's activities are aligned and remain compliant with this ESMP.

### **4.2 OPERATIONAL PHASE: ENVIRONMENTAL INSPECTIONS AND COMPLIANCE MONITORING**

An audit and inspection program must be in place to ensure effective operational performance. For example, the wastewater treatment facility, its drainage systems and water metering systems must be inspected and monitored accordingly based on a defined schedule (daily or weekly inspections). This will ensure leakages and potential groundwater contamination is detected and addressed timely. The maintenance team (i.e. artisans and mechanics) will conduct these routine inspections.

The Lodge manager will conduct regular inspections of all infrastructure and work areas to ensure compliance with operational specifications and identify any signs of wear, damage or deterioration. Any non-conformance will be recorded, including the following details: a brief description of non-conformance; the reason for the non-conformance; the responsible party; the result (consequence); and the corrective action(s) taken and any necessary follow up measures required.

### **4.3 REPORTING**

All incidents or non-compliances, including environmental issues, wildlife crimes, failure of equipment or accidents, are to be reported to the Lodge manager throughout the lodge's lifecycle. MEFT reserves the right to require the Proponent to submit bi-annual reports evaluating the Project's compliance with the commitments that are outlined in this ESMP. Wildlife crimes, for example the poaching of rhinos must be reported to the local conservation groups (SRT and communal conservancy management committees) and MEFT must be notified through the DWNP. All human-wildlife conflicts and poaching incidents related to the desert-adapted elephants must be reported promptly to the EHRA.

For large-scale spills (i.e., > 200 litres) and other significant environmental incidents, the fire service should be notified as required and the MEFT office should be informed of the incidents (telephone +264 61 284 2111). If the spillage is of a fuel source (i.e. petrol/diesel), the MIME must be notified by completing form PP/11 (telephone: +264 61 284 8111).

If significant environmental spills (hydrocarbons or domestic effluent) occur close or in a water source, the DWA is to be notified. All correspondence with DWA must be done by the Lodge manager no later than 48 hours after the incident has occurred. All correspondence with the relevant ministries should be by the Lodge manager or Gondwana’s Environmental and Social Impact department.

The lodge’s water abstraction volumes must be reported to DWA, either monthly or quarterly. The frequency of reporting will be determined by DWA under the abstraction and water use licences.

For the clean-up of smaller spills, the relevant material safety data sheet (MSDS) should be consulted to determine the appropriate clean-up procedure. Basic spill response training will be provided as part of the site environmental induction, spill response equipment, including relevant MSDS copies, will be provided in areas where potentially environmentally hazardous chemicals may be used.

Occupational incidents and accidents incurred by lodge staff during operations must be reported to the authorities (i.e. Occupational Safety & Health Department) at the Ministry of Labour, Industrial Relation and Employment Creation (MLIREC), by using form F.5.

In case of archaeological objects or heritage artefacts are discovered on-site, the chance find procedure (Appendix A) must be followed and the NHC must be informed by the Lodge manager.

The Lodge manager must ensure that the final domestic effluent complies with general standards (Annexure 11) of the Water Resources Management Regulations (2023) and that all water quality analysis and reporting requirements specified in the licenses for the proposed activities are fully met, should this be required by DWA. Gondwana’s Environmental and Social Impact department is also required for monitoring compliance with the licence conditions and ensure renewal requirements are tracked and met.

All correspondence and communication with local and regulatory authorities should be undertaken by the Lodge manager and Gondwana’s environmental department.

#### 4.4 ENVIRONMENTAL LICENCES AND CERTIFICATES

Table 3 outlines the licences and certificates that are required for the lodge operational phase.

**Table 3 Licence and certificate requirements for the lodge operational phase**

<b>Licence or certificate</b>	<b>Relevant authority</b>	<b>Related activity requiring permit</b>	<b>Act/Regulation</b>
Waste water treatment, effluent discharge and reuse licence	DWA	Required for the treatment and discharge of domestic waste	Water Resources Management Act No. 11 of 2013

<b>Licence or certificate</b>	<b>Relevant authority</b>	<b>Related activity requiring permit</b>	<b>Act/Regulation</b>
Abstraction and water use licences	DWA	Required for the abstraction of water from groundwater boreholes and water use during lodge operations	Water Resources Management Act No. 11 of 2013
Environmental clearance certificate	DEAF	Required for the listed activities associated with the lodge operations	Environmental Management Act No. 7 of 2007
Retail licence	MIME	Required to operate a fuel station and sell fuel to consumers (passing motorists)	Petroleum Products and Energy Act 1990 and Regulations of 2000
Consumer installation certificate	MIME	Required for bulk storage (> 600 L), handling and dispensing of diesel fuel on-site. Required also for bulk storage of (> 200 L), handling and dispensing of petrol on-site.	Petroleum Products and Energy Act 1990 and Regulations of 2000

#### 4.4.1 NON-COMPLIANCE

Where it has been identified that activities are not compliant with this ESMP, the Lodge manager must ensure that corrective actions are implemented to the extent that the activities return to being compliant as soon as possible. In instances where the requirements of the ESMP are not upheld, a non-conformance and corrective action notice will be produced. The notice will be generated during inspections of the different service areas and the Lodge manager will conduct follow ups to determine whether the corrective actions are implemented as planned and instructed.

A non-compliance event / situation is considered if:

- There is evidence of contravention of this ESMP and associated indicators or objectives;
- Lodge staff fail to comply with corrective actions or other instructions issued to them by the Lodge manager, Lodge supervisors or qualified authority; or

- There is evidence of negligence in recording, investigating and responding to community complaints through the established reporting channels and grievance resolution mechanisms.

Work will be stopped in the event of a non-compliance, until corrective action(s) has been completed. The non-compliance will be closed out once the Lodge manager has inspected the corrective action and confirmed that the issue has been satisfactorily resolved.

#### 4.4.2 DISCIPLINARY ACTIONS

This ESMP is a legally binding document. Non-compliance with its provisions may result in disciplinary and/or legal action(s) against the responsible party or parties. These actions may include, but not limited to the following:

- Legal actions in accordance with other applicable environmental and labour laws;
- Suspension or withdrawal of the Project approved licences and certificates;
- Complete or partial suspension of operations until compliance is restored; or
- Disqualification from participating in future tourism activities.

## 5 ENVIRONMENTAL AND SOCIAL MANAGEMENT

### 5.1 ENVIRONMENTAL PERFORMANCE MANAGEMENT

Table 4 and Table 5 provides the overall management plan of potential Project impacts during the operational phase. These plans provide mitigation and monitoring commitments, as well as the roles responsible for execution. The Lodge manager and appointed Lodge supervisor(s) will use the operational management plan to undertake daily, weekly and monthly inspections to ensure the Project remain compliant with this ESMP during operations and to manage any ad hoc activities.

This ESMP has been revised and updated to provide clear guidance to the Lodge personnel and any appointed contractor and subcontractor throughout the operational and decommissioning phase. Specifically, it covers:

- **Operational phase (current phase):** the day-to-day management of the lodge and its associated activities; and
- **Decommissioning phase (future phase):** the systematic cessation of lodge operations, including the implementation of appropriate after-care measures following cessation of lodge operations.

#### 5.1.1 OPERATIONAL PHASE

This section outlines the management, mitigation and monitoring measures to be implemented during the daily operation and management of the lodge and its associated activities. To ensure eco-tourism-oriented operations, all operational activities should be guided by the following principles:

- To manage lodge operations and activities in ways that minimise disturbance to the surrounding natural environment;
- To encourage and enforce environmentally responsible behaviours amongst lodge staff and guests;
- To prioritise the conservation of the natural environment by integrating sustainable practices into all aspects of the lodge operations;
- To conform to eco-tourism standards and hospitality best practices;
- To foster partnership with community stakeholders (established conservation groups) to jointly manage natural resources and conservation initiatives; and
- To actively collaborate with regulatory authorities and stakeholders by maintaining open communication and ensuring full compliance with all Project-approved certificates, licences and their conditions.

The specific environmental management measures and monitoring requirements required for implementation during the operational phase are discussed in Table 4.

**Table 4 – Environmental aspects, management and mitigation measures for the operational phase**

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
Groundwater resources management	<ul style="list-style-type: none"> <li>- Potential lowering of the water table as a result of daily water abstraction (~10 m<sup>3</sup>/day).</li> <li>- Improper water usage.</li> </ul>	<ul style="list-style-type: none"> <li>- Abstraction and water use licences should be in place as required under section 44 of the Water Resources Management Act No. 11 of 2013;</li> <li>- Ensure compliance with all licence conditions and reporting requirements (if required) and renew the licence within the required timeframe;</li> <li>- Turn off pumps when abstraction is not required;</li> <li>- Adopt a water-wise mindset on-site (e.g. encourage guests and lodge staff to take short showers);</li> <li>- Monitor irrigation systems to ensure water is used sparingly;</li> <li>- Develop a monitoring plan for all water pipelines to ensure leakages are detected timely and fixed; and</li> <li>- Record (daily) flowmeter readings from all metering systems to monitor and track water usage.</li> </ul>	<ul style="list-style-type: none"> <li>- Daily</li> <li>- Weekly</li> <li>- Monthly</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- All lodge staff</li> <li>- Guests at the lodge</li> <li>- Maintenance team</li> </ul>
Fuel handling storage and dispensing and maintenance of equipment, machinery and vehicles	<ul style="list-style-type: none"> <li>- Soil contamination.</li> <li>- Visual nuisance.</li> <li>- Surface and groundwater contamination.</li> </ul>	<p><b>Hydrocarbon management requirements:</b></p> <ul style="list-style-type: none"> <li>- Maintain good housekeeping;</li> <li>- All lodge vehicles, equipment and machinery must be serviced and repaired at the designated workshop;</li> <li>- All fuel and chemical containers must be stored on an impervious base, be bunded and capable of containing at least 110% of the total capacity of the storage container;</li> <li>- All fuel and chemical storage containers must be placed on stable ground to prevent them from tipping over or a spillage;</li> </ul>	<ul style="list-style-type: none"> <li>- Daily</li> <li>- Weekly</li> <li>- Monthly</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- All lodge staff</li> <li>- Appointed fuel attendants</li> </ul>

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
		<ul style="list-style-type: none"> <li>- Fully stocked appropriate spill kits are to be kept on-site; and</li> <li>- MSDSs are to be kept of each chemical used on-site. These must be accessible to all personnel and personnel must be trained therein.</li> </ul> <p><b>Fuel station:</b></p> <ul style="list-style-type: none"> <li>- A standard operating procedure (SOP) must be developed to provide clear guidance on the handling, storage and dispensing of fuel;</li> <li>- Legal safety and warning signage must be in place;</li> <li>- A consumer installation certificate must be obtained from MIME and kept on file together with the fuel retail certificate;</li> <li>- Develop and enforce a fuel and emergency spill response plan to ensure immediate containment and clean-up of any spills;</li> <li>- Conduct daily/weekly inspection of fuel tanks, hoses and dispensers for signs of wear or leaks;</li> <li>- Ensure correct calibration of fuel dispensing equipment to prevent overfilling and fuel loss;</li> <li>- Conduct regular inspections of the impermeable concrete or sealed flooring at the fuel dispensing yard to continued effectiveness in preventing soil infiltration;</li> <li>- Ensure emergency shut-off switches remain functional;</li> <li>- Fully stocked spill kits (with absorbent materials) should be readily available and train staff on how to use them effectively;</li> </ul>		

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
		<ul style="list-style-type: none"> <li>- Ensure contaminated soil is excavated and disposed of at an established remediation site (should not be buried, spread, reused elsewhere on-site or disposed of with general waste); and</li> <li>- Avoid washing and servicing vehicles near fuel storage areas where run-off could carry pollutants into the ground.</li> </ul> <p><b>Spill response measures:</b></p> <p>The following measures are to be implemented in response to a spill:</p> <ul style="list-style-type: none"> <li>- Spills are to be stopped at source as soon as possible;</li> <li>- Spilt material is to be contained to the smallest area possible using a combination of absorbent materials, earthen bunds or containment methods;</li> <li>- Spilt material is to be recovered as soon as possible using appropriate equipment. In most cases, it will be necessary to excavate the underlying soil until clean soil is encountered;</li> <li>- Recovered contaminated soil must be disposed to an appropriate disposal facility;</li> <li>- The Lodge manager and Lodge supervisors are to be informed as soon as possible in the event of a spill;</li> <li>- A written incident report must be submitted MIME; and</li> <li>- Large hydrocarbon spills (i.e. &gt; 200 L) must be reported immediately to MEFT and DWA, if it enters the river course. If the spillage is of a fuel source (i.e. petrol/diesel), the MIME must be notified by completing form PP/11 (telephone: +264 61 284 8111).</li> </ul>		

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
Biodiversity management	<ul style="list-style-type: none"> <li>- Interaction with biodiversity.</li> <li>- Potential introduction and spread of alien or invasive species.</li> <li>- Poaching</li> <li>- Bird collision into the solar power plant</li> </ul>	<p>The Nature Conservation Ordinance Act No. 4 of 1975 and its Regulations, Controlled Wildlife Products and Trade Act No. 9 of 2008 and the Animal Protection Act No. 71 of 1962 must be closely followed with regards to any encounters with wildlife within the site boundaries. In addition to this, the following measures must be complied with:</p> <p><b>Vegetation:</b></p> <ul style="list-style-type: none"> <li>- Incorporate indigenous plants into the landscaping design and ensure that no alien invasive species are introduced;</li> <li>- Riparian vegetation along the Uniab River and at the Palmwag fountain should be preserved to maintain the ecosystem functions;</li> <li>- If any protected tree is to be removed, a tree harvesting permit must be obtained from the MEFT. The following species present in the lodge area are protected:               <ul style="list-style-type: none"> <li>• <i>Colophospermum mopane</i></li> <li>• <i>Combretum imberbe</i></li> <li>• <i>Euphorbia damarana</i></li> <li>• <i>Moringa ovalifolia</i></li> <li>• <i>Sesamothamnus guerichii</i></li> <li>• <i>Tamarix usneoides</i></li> </ul> </li> </ul> <p>For reference, see Appendix B for a full list indigenous plant species, as extracted from the environmental and social impact assessment (ESIA) amendment report of 2020 (ECC).</p>	<ul style="list-style-type: none"> <li>- Daily</li> <li>- Weekly</li> <li>- Monthly</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- All lodge staff</li> <li>- Guests at the lodge</li> </ul>

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
		<p><b>Wildlife:</b></p> <ul style="list-style-type: none"> <li>- Avoid erecting any fences around the lodge perimeter to enable free movement of wildlife through the area;</li> <li>- Feeding wild animals or deliberately interacting with them is strictly prohibited (this also include during field excursions);</li> <li>- Off-road driving is strictly prohibited. All lodge recreational activities must be conducted using existing tracks and roads;</li> <li>- Poaching, possession and consumption of game and game products is strictly prohibited;</li> <li>- Encourage whistleblowing by all lodge personnel through the established anonymous reporting channels;</li> <li>- Collaborate with established anti-poaching units (APU) in the fight against poaching;</li> <li>- Wild animals encountered on-site or within the lodge operational areas have the right of way;</li> <li>- Upon arrival at the lodge, guests should be warned of free roaming wild animals, and clear signage should be in place to raise awareness;</li> <li>- Set site specific speed limits (ideally 40 km/h) and ensure that appropriate road signages are clearly erected;</li> <li>- The use of unmanned aerial vehicles (drones) is strictly prohibited);</li> <li>- Collaborate with regulators and conservation authorities in joint wildlife management efforts; and</li> <li>- Police and MEFT should be notified of any wildlife crime incidents.</li> </ul>		

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
On-site solar plant	- Potential risk of avifauna collision with the on-site ground-mounted solar panels	<ul style="list-style-type: none"> <li>- Bird nests discovered on infrastructure should not be removed or destroyed.</li> <li>- Maintain records of bird collisions with the solar power plant. Instances of high collision rates must be investigated to identify potential causes and appropriate mitigation measures.</li> </ul>	-	-
Domestic waste management	- Littering, visual nuisance, odours and health risks.	<ul style="list-style-type: none"> <li>- Implement the waste management hierarchy across the site: avoid, reuse, recycle, and then dispose of;</li> <li>- Maintain good housekeeping across all lodge operational areas;</li> <li>- Provide clearly labelled waste bins to encourage proper waste sorting by guests and staff;</li> <li>- Separate waste at source into categories such as organic (food waste), recyclable (plastic, paper, metal) and non-recyclable waste;</li> <li>- A temporary solid waste storage area must be established, and waste bins must be covered and collected periodically for disposal at an approved waste disposal site off-site;</li> <li>- The waste storage area must always be kept clean and tidy;</li> <li>- Once emptied, food waste bins must be cleaned, dried and returned to their designated areas;</li> <li>- Investigate the possibility of composting food waste to produce organic matter for use in landscaping activities; and</li> <li>- Fat trap for the kitchen grease must be emptied when full and disposed of at the designated area.</li> </ul>	<ul style="list-style-type: none"> <li>- Daily</li> <li>- Weekly</li> <li>- Monthly</li> </ul>	<ul style="list-style-type: none"> <li>- All lodge staff</li> <li>- Staff member(s) tasked with waste management duties</li> </ul>

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
Wastewater (effluent) management	<ul style="list-style-type: none"> <li>- Possible sewage discharge runs.</li> <li>- Leakage and seepage of effluent into water resources.</li> <li>- Odours and disease transmissions</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure compliance with the licence conditions issued for the conventional gravity sewage system, particularly with regards to effluent discharge, reuse, sampling and reporting to DWA (if required);</li> <li>- All sewage waste to be treated to general standards (Annexure 11 of the Water Resources Regulations of 2023), unless determined otherwise by DWA in the approved wastewater treatment, effluent discharge and reuse licence conditions;</li> <li>- No employee may relieve himself or herself in the surrounding environment;</li> <li>- Use biodegradable toilet cleaners that do not impact on the microbial activities required for effective wastewater treatment processes;</li> <li>- Develop a wastewater inspection schedule covering all drainage systems and components of the waste treatment plant to ensure malfunctions are timely detected and repaired; and</li> <li>- Conduct regular training and refresher courses with the maintenance team on environmental regulations, operational procedures and emergency protocols to ensure effective management and monitoring of the facility.</li> </ul>	<ul style="list-style-type: none"> <li>- Daily</li> <li>- Weekly</li> <li>- Monthly</li> <li>- Annually</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- Lodge supervisor</li> <li>- Lodge maintenance team</li> </ul>
Historical, archaeological and cultural heritage	<ul style="list-style-type: none"> <li>- Potential damage to heritage or undiscovered archaeological finds</li> </ul>	<ul style="list-style-type: none"> <li>- In the event that heritage objects or sites are discovered, the chance find procedure (Appendix A) must be adopted and followed.</li> <li>- A heritage consent from the National Heritage Council (NHC) will be required for the management of any future heritage finds. Compliance to the heritage consent conditions will be required (e.g. reporting to NHC on a biannual basis and renewal of the heritage consent throughout the Project lifecycle).</li> </ul>	<ul style="list-style-type: none"> <li>- Project lifespan</li> </ul>	<ul style="list-style-type: none"> <li>- All staff</li> </ul>

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
Visitor's relations and management	- Violation of the commitments outlined in this ESMP	<ul style="list-style-type: none"> <li>- All lodge visitors are expected to abide by the information/notices conveyed to them for the duration of their stay at the lodge;</li> <li>- Visitors are not allowed to feed or deliberately interact with wild animals;</li> <li>- Visitors are expected to drive responsibly when travelling to and from the lodge, with consideration of wildlife and other road users; and</li> <li>- Engage in proper waste management practices (e.g. dispose waste in the provided waste bins).</li> </ul>	- Daily	- All lodge visitors
Career uplifting opportunities	- Skills development	<ul style="list-style-type: none"> <li>- Engage in general environmental awareness, skills empowering, career advancing workshops and training (e.g. first aid training, hospitality, technical and software skills training);</li> <li>- Ensure resources are in place to ensure all lodge staff participate in regular training and refresher courses to enhance their skills, knowledge and overall competence; and</li> <li>- Ensure deserving candidates are promoted to leadership roles.</li> </ul>	- Ad hoc basis	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- Lodge staff</li> </ul>
Job creation and impacts on the local and regional economy	- Commitment to fair recruitment practices	<ul style="list-style-type: none"> <li>- Prioritise the employment of local community members, with all new recruitments to be conducted in accordance with Gondwana's corporate recruitment strategies; and</li> <li>- Where available, ensure that goods and services are sourced from local and regional suppliers to support the surrounding economy.</li> </ul>	- Ad hoc basis	- HR department
Community relations	- Strong working relationship with the neighbouring	- The Proponent and Lodge manager must represent the Project by maintaining good working relations with the surrounding communities, conservancy management committees, conservation groups (i.e. SRT, EHRA), external auditors and regulatory authorities;	- Ad hoc basis	<ul style="list-style-type: none"> <li>- The Proponent</li> <li>- Lodge manager</li> </ul>

Aspect	Potential impact	Management and mitigation measures	Monitoring requirement	Responsibility
<b>Operational phase</b>				
	conservancies conservation groups, key stakeholders and regulatory authorities	<ul style="list-style-type: none"> <li>- The Proponent shall actively participate in conservation-focused initiatives, water resources management forums and other related environmental conservation or ecological restoration efforts; and</li> <li>- Ensure that cultural or archaeological objects and sites (if discovered or unearthed) are not damaged and are reported to NHC.</li> </ul>		

### 5.1.2 DECOMMISSIONING PHASE

The decommissioning phase follows the operational phase. This section provides a site-specific plan developed to ensure that appropriate environmental and management practices are followed during the decommissioning phase of the Project. The section also outlines detailed remediation; site control and monitoring activities that will be conducted once lodge infrastructure is no longer required.

The decommissioning phase:

- Provide effective and implementable site-specific procedures and mitigation measures to monitor and manage environmental impacts throughout the decommissioning phase of the Project. These measures aim to minimise the likelihood and extent of post-decommissioning impacts;
- Establish a long-term management plan for the Project site to ensure its effective transition to its next intended use;
- Aims to eliminate the long-term liability issues and reduce the likely occurrence of irreversible impacts post site closure; and
- Provide a platform for the Proponent to engage/collaborate with local communities, stakeholders and regulatory authorities in the planning and implementation of decommissioning activities, including the disposal of waste, building remnants and post-closure care requirements.

Prior to the implementation of any decommissioning or closure measure, a thorough investigation into potential alternative end uses of the site must be conducted, particularly in collaboration with selected stakeholders. This will ensure that opportunities for sustainable land use and appropriate ecological restoration measures are fully considered and effectively integrated into the overall site closure strategy.

The decommission phase or site closure is yet to be determined. However, should this be required or determined for any reason, the following general conditions outlined in Table 5 shall be followed and implemented, as best practice measures.

**Table 5 - Rehabilitation plan for the Project**

Aspect	Management measures required	Responsibility
Tools and equipment	<ul style="list-style-type: none"> <li>- Collaboration with selected stakeholders is required regarding future land use;</li> <li>- All fuel containers and tanks must be removed, and any hydrocarbon stains or spillages within lodge work areas must be promptly and thoroughly cleaned up; and</li> <li>- Ensure all hand and power tools are cleared from site prior to site closure. Specifically, the fuel storage tanks and solar panels must be cleared from site.</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- Contractor</li> <li>- Maintenance team</li> </ul>
Wastewater management systems	<ul style="list-style-type: none"> <li>- All drainage systems, wastewater pipes and components of the wastewater treatment facility must be disconnected, dismantled and safely disposed offsite at an approved waste disposal facility or wastewater treatment works; and</li> <li>- Ensure all wastewater is properly drained (i.e. no pooling shall remain on-site upon closure).</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- Contractor</li> <li>- Maintenance team</li> </ul>
Building remnants, scrap metals etc.	<ul style="list-style-type: none"> <li>- All infrastructure, including concrete foundations must be demolished to ensure there will be no free-standing structures; and</li> <li>- Building remnants should be disposed offsite at the waste disposal site.</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- Contractor</li> <li>- Maintenance team</li> </ul>
Solid waste management	<ul style="list-style-type: none"> <li>- All solid waste generated must be handled in accordance with the site waste handling procedures; and</li> <li>- No waste may be buried on-site.</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- Contractor</li> <li>- Maintenance employees</li> </ul>
Gravel roads	<ul style="list-style-type: none"> <li>- Dis-used roads and site access roads must be rehabilitated to enhance the aesthetic value of the site.</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- Contractor</li> <li>- Maintenance employees</li> </ul>

Aspect	Management measures required	Responsibility
Site closure	<ul style="list-style-type: none"> <li>- Conduct a final site inspection with the representatives of the conservation organisations (i.e. SRT and management committees of the neighbouring conservation), and / or regulatory authorities (MEFT, MIME or MAFWLR) to verify satisfaction with decommissioning outcomes; and</li> <li>- Once approval is granted, a satisfaction letter or certificate must be issued to the Proponent by the relevant regulatory or conservation organisation representatives.</li> </ul>	<ul style="list-style-type: none"> <li>- Lodge manager</li> <li>- SRT</li> <li>Representatives and committees' members of the neighbouring communal conservancies (e.g. Sesfontein, Anabeb, Omatendeka, Torra and #Khoadi-//Hôas)</li> <li>- Regulatory authorities</li> </ul>

## **6 PROPERTY LEASE, TRANSFER OR CESSATION OF THE JOINT VENTURE PARTNERSHIP**

In the event that lodge operations cease due to a transfer of ownership or lease of the property, the incoming owner is required to comply fully with all conditions outlined in this ESMP. At this stage, should infrastructure be removed, it is recommended that the Proponent implement a comprehensive rehabilitation plan to restore the site to its natural and ecological state, as far as reasonably practicable. This will prevent further environmental degradation and prepare the land for its next intended use.

## **7 IMPLEMENTATION OF THE ESMP**

This ESMP:

- A. Has been revised pursuant to the contract with the Proponent;
- B. Has been revised on the basis of information provided to ECC up to September 2025;
- C. Is for the sole use by the Proponent, lodge employees, contractors and subcontractors during the operational and decommissioning phase;
- D. Must not be used by any person other than (1) the Proponent (2) Contractors and subcontractors; and
- E. Must not be copied without the prior written permission of ECC.

## APPENDIX A - CHANCE FIND PROCEDURE

This section covers the procedures, reporting and management of sites or items of heritage significance should they be discovered, encountered or unearthed within the lodge operational areas.

**Scope:** The "chance finds" procedure covers the actions to be taken from the discovery of a heritage site or item to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

**Compliance:** The "chance finds" procedure is intended to ensure compliance with relevant provisions of the National Heritage Act No. 27 of 2004, especially Section 55 (4) which states that: "a person who discovers any archaeological object must as soon practicable possible report the discovery to the Council". The procedure of reporting set out below must be observed so that heritage remains reported to the National Heritage Council (NHC) are correctly identified in the field.

### Responsibilities

Contractors/employees – to exercise due caution if archaeological remains are discovered.

Lodge supervisor(s) – to secure the site and advise management timeously.

The Lodge manager – to determine safe working boundaries and request for inspection.

Archaeologist – to inspect, identify, advise management and recover remains.

Table 6 provides the environmental risks and issues, mitigation and monitoring measures for archaeological and heritage aspects.

**Table 6 - Archaeological and heritage aspects**





<b>Responsibility:</b>	<ul style="list-style-type: none"> <li>- The Lodge manager, Lodge supervisor(s), Lodge employees, contractors and subcontractors</li> </ul>
Potential issues or impacts:	<ul style="list-style-type: none"> <li>- Impact on heritage features.</li> </ul>
<b>Management /mitigation measures</b>	
Potential to unearth heritage objects or resources	<ul style="list-style-type: none"> <li>- All lodge personnel and contractors should be aware of the protected archaeological site and the legal obligation to report any new findings to the National Heritage Council (NHC) immediately.</li> </ul> <p>Should a heritage site or archaeological site be uncovered or discovered particularly during the construction or operational phase, a chance find procedure should be applied in the order they appear below:</p> <ul style="list-style-type: none"> <li>- If operating machinery or equipment, stop work;</li> </ul>

	<ul style="list-style-type: none"> <li>- Demarcate the site with danger tape;</li> <li>- Determine geographical positioning system (GPS) position if possible;</li> <li>- Report findings to the Lodge supervisor;</li> <li>- Report findings, site location and action taken to the Lodge manager;</li> <li>- Cease any works in the immediate vicinity;</li> <li>- Visit the site and consult any potentially affected community to determine whether work can proceed without damage to the findings;</li> <li>- Determine and demarcate the exclusion boundary;</li> <li>- Site location and details to be added to the Project's geographic information system (GIS) for field confirmation by an archaeologist;</li> <li>- Inspect the site and confirm addition to the Project GIS;</li> <li>- Advise the NHC and request written permission to remove findings from work area; and</li> <li>- Recover, package and label findings for transfer to the National Museum.</li> </ul>
	<p>Should human remains be found, the following actions must be followed:</p> <ul style="list-style-type: none"> <li>- Apply the chance find procedure as described above;</li> <li>- Schedule a field inspection with an archaeologist to confirm that the remains are human;</li> <li>- Advise and liaise with the NHC and Police; and</li> <li>- Remains will be recovered and removed to either the National Museum or the National Forensic Laboratory.</li> </ul>

## APPENDIX B – LIST OF INDIGENOUS PLANT SPECIES

The list of indigenous plant species sourced from the ESIA amendment report of 2020 (ECC).

Tree species	
Common name	Scientific name
Camel Thorn or Kameeldoring	<i>Acacia erioloba</i>
Sweet thorn or Soetdoring	<i>Acacia karoo</i>
Radio tree or Hemelbesem	<i>Acacia robyniana</i>
Umbrella thorn or Sambreeldoring	<i>Acacia tortilis</i>
Butterfly leaf or Beeskloof	<i>Adenolobus garipensis</i>
Worm cure albizia or Aru	<i>Albizia anthelmintica</i>
Shepherd's tree or Witgat	<i>Boscia albitrunca</i>
Mopane	<i>Colophospermum mopane</i>
Leadwood or Hardekool	<i>Combretum imberbe</i>
Corkwood or Kanniedood	<i>Commiphora glaucescens</i>
Wild ebony or Wilde ebbe	<i>Euclea pseudebenus</i>
Ana tree	<i>Faidherbia albida</i>
Fig tree	<i>Ficus sycomorus</i>
Ringwood tree	<i>Maerua schinzii</i>
Phantom tree or Sprokiesboom	<i>Moringa ovalifolia</i>
Wild Olive or Olien	<i>Olea europeae</i>
Resin tree or Harpuijsboom	<i>Ozoroa crassineria</i>
Weeping wattle or Huilboom	<i>Peltophorum africanum</i>
Mustard tree or Kerriebos	<i>Salvadora persica</i>
Karee	<i>Searsia lancea</i>
Star Chestnut	<i>Sterculia africana</i>
Purple pod terminalia	<i>Terminalia prunioides</i>
Buffalo Thorn/Blinkblaar -wag-n bietjie	<i>Ziziphus mucronata</i>
Shrubs and succulents	
Kraalaalwyn	<i>Aloe asperifolia</i>
Hereoland Aloe	<i>Aloe hereroensis</i>
Kobas or botterboom	<i>Cyphostemma currorii</i>
Melkbos	<i>Euphorbia damarana</i>
Gifboom	<i>Candelabra euphorbia</i>
Sambokbossie	<i>Kleinia longiflora</i>
Bottelboom or Flaschenbaum	<i>Pachypodium lealii</i>
Herero sesame bush	<i>Sesamothamnus guerichii</i>
Vegetation occurring on-site	

	 <p><i>Colophospermum mopane</i></p>
	 <p><i>Combretum imberbe</i></p>
	 <p><i>Euphorbia damarana</i></p>
	 <p><i>Moringa ovalifolia</i></p>



*Sesamothamnus guerichii*



*Tamarix usneoides*