



ENVIRONMENTAL SCOPING REPORT

**Gondwana Collection Namibia (PTY) Ltd,
Namushasha River Lodge - Houseboats**

February 2018

Prepared for



ECC DOCUMENT CONTROL: ECC-62-109-REP-04-C

TITLE AND APPROVAL PAGE

Project Name:	Namushasha River Lodge – Houseboats
Client Name:	Gondwana Collection Namibia Pty (Ltd)
Ministry Reference:	Environmental Clearance Certificate - 07.07.2017
Status of Report:	MET comments addressed, issued to MET as part of Environmental Clearance Certificate
Date of issue:	7 th February 2018
Review Period	N/A

Environmental Compliance Consultancy Contact Details:

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

Stephan Bezuidenhout

Environmental Consultant & Practitioner

Tel: +264 81 262 7872

Fax: +27 (86) 229 4009

Email: stephan@eccenvironmental.com

www.eccenvironmental.com

Jessica Mooney

Environmental & Safety Consultant

Tel: +264 81 653 1214

Fax: +27 (86) 229 4009

Email: jessica@eccenvironmental.com

www.eccenvironmental.com

Confidentiality

Environmental Compliance Consultancy Notice: This document is confidential. If you are not the intended recipient, you must not disclose or use the information contained in it. If you have received this document in error, please notify us immediately by return email and delete the document and any attachments. Any personal views or opinions expressed by the writer may not necessarily reflect the views or opinions of Environmental Compliance Consultancy.

ENVIRONMENTAL COMPLIANCE CONSULTANCY



DECLARATION OF INDEPENDENCE OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Stephan Bezuidenhout**, declare that –

General declaration:

- I act as the independent environmental practitioner in this application/tender
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- All the particulars furnished by me in this form are true and correct;
- I will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations



SIGNATURE

1st January 2018

DATE

Contents

1.	INTRODUCTION	8
1.1.	BACKGROUND TO THE PROPOSED PROJECT	8
1.2.	ENVIRONMENTAL REQUIREMENTS	8
1.2.1.	CORRESPONDENCE WITH THE MINISTRY OF ENVIRONMENT AND TOURISM	8
1.2.2.	ENVIRONMENTAL CLEARANCE CERTIFICATE	8
1.3.	PURPOSE OF THIS REPORT	9
1.4.	THE PROPONENT OF THE PROPOSED PROJECT	10
1.5.	ENVIRONMENTAL CONSULTANCY	10
1.6.	REPORT STRUCTURE	11
2.	REGULATORY FRAMEWORK.....	12
3.	PROJECT DESCRIPTION.....	14
3.1.	PROJECT LOCATION	14
3.2.	MASHI CONSERVANCY.....	14
3.3.	EXISTING LODGE FACILITIES	14
3.4.	NEED FOR THE PROPOSED HOUSEBOATS	15
3.5.	PROPOSED HOUSEBOATS	15
3.6.	OPERATIONAL PHASE	16
3.6.1.	TOURIST ACTIVITIES.....	16
3.6.2.	PERSONNEL AND EMPLOYMENT.....	16
3.6.3.	SEWERAGE AND GREYWATER	17
3.6.3.1.	GENERAL WASTE	17
3.6.3.2.	HOUSEBOAT RENOVATIONS AND MAINTENANCE	17
3.6.4.	DECOMMISSIONING PHASE	17
4.	PROJECT ALTERNATIVES.....	19
4.1.	INTRODUCTION.....	19
4.2.	RISK ASSESSMENT METHODOLOGY.....	19
4.3.	RISK ASSESSMENT OUTCOMES	21
5.	RECEIVING ENVIRONMENT	25
5.1.	ENVIRONMENTAL CONTEXT	25
5.2.	INFRASTRUCTURE AND BUILT ENVIRONMENT	25
5.3.	BWABWATA NATIONAL PARK.....	25
5.4.	SURFACE WATER	25
5.5.	ECOLOGY	26
5.5.1.	AMPHIBIANS, REPTILES AND INVERTEBRATES	26
5.5.2.	MAMMALS	26
5.5.3.	AVIAN DIVERSITY	26
5.5.4.	TREE AND SHRUB DIVERSITY	27
5.6.	SOCIAL ENVIRONMENT	27
6.	IMPACT ASSESSMENT METHODOLOGY	28
6.1.	PURPOSE OF AN ENVIRONMENTAL ASSESSMENT	28
6.2.	THE ASSESSMENT PROCESS	28
6.3.	THE ASSESSMENT PROCESS FOLLOWED BY ENVIRONMENTAL COMPLIANCE CONSULTANCY	28
6.3.1.	SCREENING OF THE ENVIRONMENTAL ASSESSMENT	30
6.3.2.	SCOPING OF THE ENVIRONMENTAL ASSESSMENT	30
6.3.3.	CONSULTATION	30
6.4.	ASSESSMENT METHODOLOGY	30
6.4.1.	LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS.....	30

6.4.2.	DETERMINATION OF SIGNIFICANCE	31
7.	IMPACT ASSESSMENT FINDINGS.....	34
7.1.	INTRODUCTION.....	34
7.2.	SCOPING	34
7.3.	ECOLOGY	35
7.3.1.	AQUATIC ECOLOGY	35
7.3.1.1.	HOUSEBOAT OPERATIONS AND ASSOCIATED ACTIVITIES: DISTURBANCE TO AQUATIC LIFE	35
7.3.1.2.	GENERAL HOUSEBOAT OPERATIONS AND MAINTENANCE: POLLUTION & FLORA AND FAUNA	35
7.3.1.3.	GENERAL HOUSEBOAT OPERATIONS AND ASSOCIATED ACTIVITIES: INCREASE IN NOISE AND LIGHTING.....	36
7.4.	SURFACE WATER	37
7.4.1.	GENERAL OPERATIONS: SURFACE WATER QUALITY	37
7.4.2.	SUMMARY OF EFFECTS	37
8.	CONCLUSION.....	39

TABLES

Table 1 - ESIA Report Sections	11
Table 2 – Legal Compliance	12
Table 3 – ECC Environment and Social Risk Assessment Matrix	20
Table 4 – Alternatives Risk Assessment: Option 1 - Introduction of houseboats onto Kwando River	22
Table 5 – Alternatives Risk Assessment: Option 2 - Modification to existing game viewing and fishing boats (upgrading existing boats).....	23
Table 6 – Alternatives Risk Assessment: Option 3 - Do not proceed with the upgrades or new houseboats	24
Table 7 – Significance Description.....	32
Table 8 – Topics Scoped out of the assessment.....	34
Table 9 - Summary of effects.....	37

FIGURES

Figure 1 – Location of Namushasha River Lodge	14
Figure 2 – Concept design of the proposed houseboats (Fox Brown Creative (FBC), 2016).....	16
Figure 3 – Fusion Activated Sludge Sewer Treatment Plant Process	17
Figure 4 – The Kwando River	26
Figure 5 - Guide to significance ratings	32

DEFINITIONS AND ABBREVIATIONS

DEA	Directorate of Environmental Affairs
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
GCN	Gondwana Collection Namibia
IFC	International Finance Cooperation
I&AP	Interested and affected parties
IUCN	International Union for Conservation of Nature
JMC	Joint Management Committee
MAWF	Ministry of Agriculture Water and Forestry
MET	Ministry of Environment and Tourism

1. INTRODUCTION

1.1. BACKGROUND TO THE PROPOSED PROJECT

Tourism is a thriving industry in Namibia and has been increasing over the years: in 2015 a total of 1,387,773 tourists arrived in Namibia, which was a 5.1% growth rate from 2014 (Ministry of Environment and Tourism, 2015). The industry is an important contributor to the generation of foreign exchange earnings, investments, revenue, employment, rural development, poverty reduction, environmental protection and to the growth of the country's economy. Tourism also creates strong direct and peripheral benefits because of its multiplier effect, based on its resilience on a wide spread of supplies and services.

Hotels and restaurants, a proxy for the tourism sector grew by an average of 6.6% in the last five years, which contributed about 1.8% to GDP which is estimated to the foreign exchange earnings increased to about N\$4.68 billion. The target in the 5th National Development Plan is to increase tourist arrivals from 1.4 million to 1.8 million by 2021/22 and increase employment from 29,000 to 43,000 (National Planning Commission, 2017).

As a direct result of increasing tourist numbers (both domestic and international), the development of facilities (e.g. hotels, lodges, restaurants, activity providers) is increasing along with competition between these facilities.

Namushasha River Lodge is owned and operated by Gondwana Collection Namibia Pty (Ltd), which is part of the Gondwana Collection Namibia (GCN). The lodge is located on the eastern bank of the Kwando River, directly opposite the Bwabwata National Park in the Zambezi Region of Namibia. A unique opportunity has been identified in integrating four houseboats into the Namushasha River Lodge. The houseboats would offer exclusive accommodation for tourists on board a boat that would be sited on the Kwando River.

1.2. ENVIRONMENTAL REQUIREMENTS

1.2.1. CORRESPONDENCE WITH THE MINISTRY OF ENVIRONMENT AND TOURISM

In October 2017, Environmental Compliance Consultancy (ECC) on behalf of GCN submitted an application for an amendment to the existing Environmental Clearance Certificate held by Namushasha River Lodge, in line with correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (MET:DEA) (see Appendix 1).

The application for the amendment included an Environmental Scoping Report and an Environmental Management Plan (EMP), in accordance with the requirements of the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011) gazetted under the Environmental Management Act, (EMA), 2007 (Act No. 7 of 2007) (referred to herein as the EIA Regulations).

A response from the MET:DEA was received in January 2018 (Appendix 2) stating that a separate Environmental Clearance Certificate for the house boats was required.

This Environmental Scoping Report and associated EMP (Appendix 3) have subsequently been revised addressing the MET:DEA comments, and both will be issued as part of the Environmental Clearance Certificate for the house boats.

1.2.2. ENVIRONMENTAL CLEARANCE CERTIFICATE

The Environmental Management Act, 2007 stipulates that an Environmental Clearance Certificate is required to undertake Listed Activities under the Act and associated Regulations. Listed activities triggered by the proposed project in accordance with the Environmental Management Act, 2007 and supporting regulations are as follows:

TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

Namushasha River Lodge obtains an Environmental Clearance Certificate (found in Appendix 4), and Environmental Management Plan (found in Appendix 5), which was approved by the MET:DEA in July 2017. The Environmental Clearance Certificate for the houseboats will not include activities undertaken for the existing arrangements at the lodge and will only include those activities specific to the new houseboats.

1.3. PURPOSE OF THIS REPORT

The purpose of this report is to present the potential environmental (socio-economic, bio-physical) impacts either positive or negative, that may occur as a result of operating the four houseboats, including supporting activities (referred to as the proposed project). The construction of the houseboats is not part of the assessment.

The assessment of environmental impacts was undertaken using an impact identification and ranking matrix, developed by ECC and based on International Finance Corporation (IFC) standards. An analysis of the receiving environment was undertaken as well as a literature review of previously conducted Environmental Management Plans. This enabled adequate synthesis of all project activities and identification of potential impacts of the proposed project.

This Environmental Scoping Report and appendices will be submitted to the DEA at the MET and the Ministry of Agriculture, Water and Forestry (MAWF) for review as part of the Environmental Clearance Certificate application, and has been prepared to provide information to Authorities, the public and stakeholders to aid in the decision-making process for the proposed project. The objectives of the Environmental assessment are therefore to:

- Provide a description of the proposed activity and the site on which the activity is to be undertaken, and the location of the activity on the site;
- Provide a description of the environment that may be affected by the activity;
- Identify the laws and guidelines that have been considered in the assessment and preparation of this report;
- Provide details of the public consultation process;
- Describe the need and desirability of the activity;
- Provide a high level environmental and social impact assessment on feasible alternatives that were considered; and
- Report the assessment findings, identifying the significance of effects, including cumulative effects.

In addition to the environmental assessment, an EMP (Appendix 3) is also required under the Environmental Management Act, 2007. An EMP has been developed to provide a management framework for the planning and implementation of construction activities and provides construction and operational standards and operating arrangements so that potential environmental and social impacts of operating the houseboats are mitigated, prevented and minimised as far as reasonable practicable, and that statutory requirements and other legal obligations are fulfilled.

The lodge has an existing EMP under the Environmental Clearance Certificate. This EMP for the houseboats will become part of the overarching EMP and therefore this EMP should be read in conjunction with the overarching EMP due to the potential overlap and interfaces of activities.

1.4. THE PROPONENT OF THE PROPOSED PROJECT

Namushasha river lodge is owned by Gondwana Collection Namibia Pty (Ltd.) (under GCN) a Namibian broad based sustainable tourism enthusiast group spearheading nature conservation and ecotourism across Namibia. The proponent's contact details are as follows:

Group Environmental Officer: Gondwana Collection Namushasha River Lodge

P.O. Box 80205, Windhoek, Namibia

Tel: +264 81 156 3706 or Tel: +264 61 427 243

Email: enviro@gondwana-collection.com

1.5. ENVIRONMENTAL CONSULTANCY

Environmental Compliance Consultancy (ECC), a Namibian consultancy registration number 2013/11401, has prepared this BA on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across Southern Africa in the public and private sector. ECC is independent to the proponent and has no vested or financial interest in the proposed project.

All compliance and regulatory requirements regarding this assessment document should be forwarded by email or post to the following address:

Environmental Compliance Consultancy

PO BOX 91193

Klein Windhoek, Namibia

Tel: +264 81 262 7872 or Tel: +264 81 653 1214

Email: info@eccenvironmental.com

Appendix 10 contains the CVs of ECC's environmental practitioners.

1.6. REPORT STRUCTURE

This Environmental Scoping Report is structured as per the contents set out in Table 1.

Table 1 - ESIA Report Sections

SECTION	TITLE	CONTENT
-	Executive Summary	Executive summary of the EIA
-	Acronyms	A list of acronyms used during the report
1	Introduction	This section introduces the EIA and provides background information on the proposed project, proponent and purpose of the report
2	Regulatory Framework	This chapter describes the Namibian environmental regulatory framework applicable to the project and how it has been considered in the assessment and the Scoping Report and EMP.
3	Project Description	Presents a description of the proposed project and how the proposed project will be operated.
4	Project Alternatives	This chapter provides alternatives considered and the findings of a risk assessment of these options.
5	Receiving Environment	Presents information on the receiving environment that may be affected by the project.
6	Impact Assessment and Mitigation	This chapter presents the predicted potential environmental and social effects arising from the proposed project, and the mitigation and management strategies to be applied to avoid or reduce the effects.
7	Conclusions	Concludes the findings of the EIA
	References	A list of reference used for this report

The ESIA report has the following supporting appendices:

- 1 – Correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (amendment)
- 2 – Correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (assessment comments)
- 3 – Namushasha River Lodge Houseboat Environmental Management Plan
- 4 - Namushasha River Lodge Environmental Clearance Certificate
- 5 – Namushasha River Lodge Environmental Management Plan
- 6 – Gondwana – Namushasha Houseboats, Interiors Concept
- 7 - Employment and Skills Development Plan with the Mashi Conservancy
- 8 - Fusion Series Waste Water Treatment System
- 9 – Letter of support from the Mashi Conservancy
- 10 – CVs of environmental practitioners

2. REGULATORY FRAMEWORK

This chapter outlines the regulatory framework applicable to the proposed project. Table 2 provides a list of applicable legislation and the relevance to the project.

Table 2 – Legal Compliance

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Namibian Constitution First Amendment Act 34 of 1998	The Constitution of the Republic of Namibia, 1990 clearly defines the Country's position in relation to sustainable development and environmental management. The Constitution refers that the State shall actively promote and maintain the welfare of the people by adopting policies aimed at the following: <i>"Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular, the Government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory."</i>	– The houseboats will promote the use of solar energy as an alternative sustainable energy source. – The proponent holds the registration license with NTB as well as an environmental clearance certificate for their lodge establishment
Environmental Management Act, 2007 (Act No. 7 of 2007) and associated regulations, including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011)	The Act aims to promote sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment. It sets the principles of environmental management as well as the functions and powers of the Minister. The Act requires certain activities to obtain an environmental clearance certificate prior to project development. The Act states an EIA may be undertaken and submitted as part of the environmental clearance certificate application. The MET is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs under the MET is responsible for the administration for the EIA process.	This Environmental Scoping Report (and EMP) documents the findings of the environmental assessment undertaken for the proposed project, which will form part of the environmental clearance application. The assessment and report have been undertaken in line with the requirements under the Act and associated regulations.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Water Act, 1956	This Act provides for the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respects, of the use of sea water for certain purposes; and for the control of certain activities on or in water in certain areas. The MAWF Department of Water Affairs is responsible for administration of the Water Act.	The Act stipulates obligations to prevent pollution of water. The EMP sets out measures to avoid polluting the water environment. A permit to discharge waste water will be obtained prior to operations.

3. PROJECT DESCRIPTION

3.1. PROJECT LOCATION

The Namushasha River Lodge is located in the Zambezi Region, north of the northern Botswana border. It is accessed from the C49, which joins the B8 to the north, the major highway through the Caprivi Strip, and to the south, routes round to Katima Mulilo (see Figure 1). Kongola is the closest settlement, approximately 20km north of the lodge where the C49 and B8 join. Katima Mulilo is approximately 130km to the east along the B8 and serves as the main town.

The lodge lies on the eastern bank of the Kwando River, directly opposite the Bwabwata National Park. The proposed houseboats will be sited upstream of the lodge as illustrated in Figure 1.

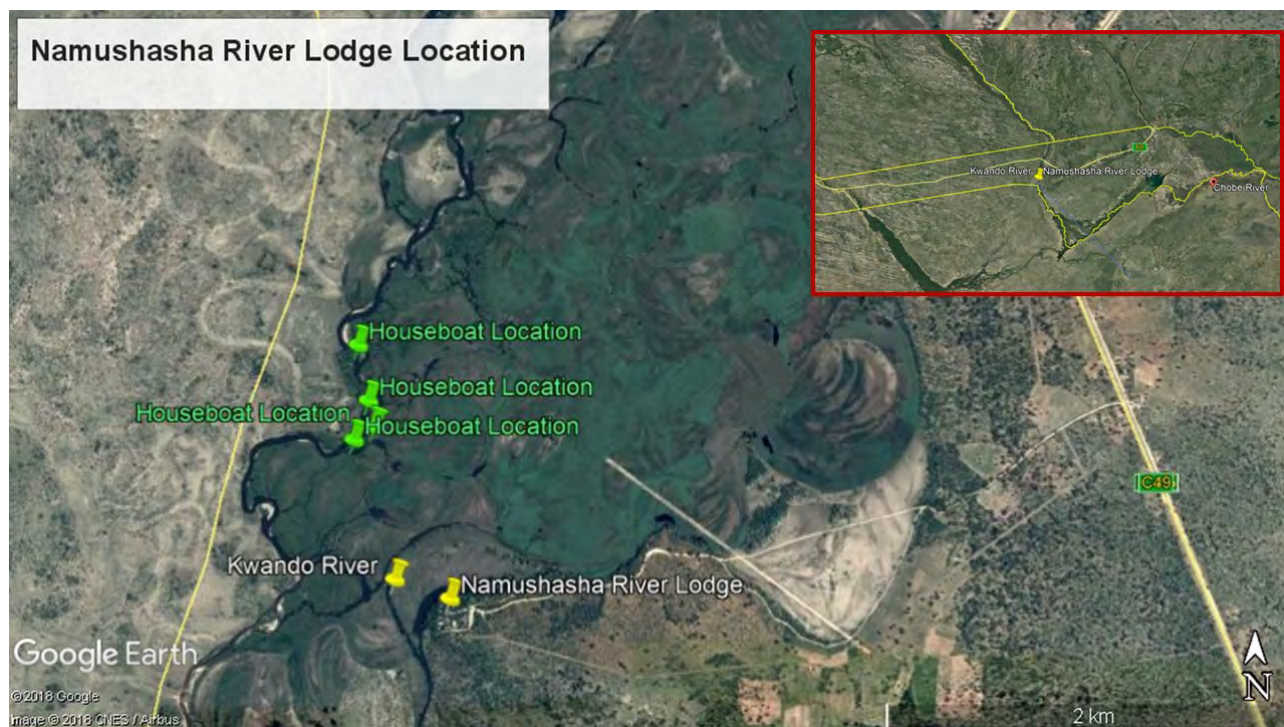


Figure 1 – Location of Namushasha River Lodge

3.2. MASHI CONSERVANCY

The lodge and the sites for the houseboats are sited within the Mashi Conservancy. The GCN and the Mashi Conservancy have a joint venture operation, and as part of this joint venture, the lodge has exclusive use of an area with a radius of 1.5km solely for tourism related activities. The agreement between GCN and the conservancy is monitored for compliance by both parties on a joint management committee (JMC) which meet four times per year (Gondwana Environmental Committee, 2016).

A compliance matrix has been developed and is used to ensure compliance by both parties. The JMC also handles a range of issues to ensure that all opportunities and threats to the partnership are addressed timeously and to encourage a strong partnership.

3.3. EXISTING LODGE FACILITIES

The Namushasha River Lodge (locality illustrated on Figure 2) comprises the following entities:

- Main building consisting of reception, restaurant, bar, curio shop, kitchen and offices;

- Accommodation clusters, of six and eight buildings, placed on either side of the main building that provide a total of 27 rooms and 57 beds;
- One medium sized swimming pool;
- A boat launching area;
- Senior and junior staff accommodation, managers' house, laundry, workshop and generator room;
- A 16-site camping area, with a centrally situated "lapa" under thatch roof, which has gas cooking facilities and washing area; and
- four separate ablution blocks.

Lodge services include:

- Water for lodge activities is supplied by one borehole and is stored in 2 x 5000 litre tanks;
- Water for the lawn is supplied from the river after it has undergone a filtration process;
- Sewage is contained in septic tanks with soak-away systems; and
- A 33 Kv line from Ngonga Primary School to Namushasha Lodge.

Lodge activities include:

- Walking trail to community heritage center;
- River cruises along the Kwando River and channels;
- Trips to the Bwabwata National Park, by boat and then game vehicle; and
- Guided fishing and game excursions.

3.4. NEED FOR THE PROPOSED HOUSEBOATS

Namushasha River Lodge has been operating for many years and as part of the GCN, its aim is to provide guests with exclusive experiences in a sustainable manner. By incorporating houseboats into the Namushasha River Lodge, an additional unique service and experience is available to guests, thereby attracting tourists to the area. These houseboats support the growth of the lodge and the demand of tourist facilities and options, as well as the local communities and conservancy.

3.5. PROPOSED HOUSEBOATS

The proposed project is comprised of four houseboats. The houseboats have been described as "A vibrant African river House Boat, inspired by river reeds and basket weaving of the region" (See Appendix 5). The houseboats will be an extension of recreational activities offered at Namushasha River lodge and other Lodges along the Kwando River. The operations of the houseboats will become part of the lodge and the existing arrangements and policies will apply.

Each of the four houseboats will consist of the following and will look something similar to those presented in Figure 4:

- Dimensions: 4.5 m (width) x 12m (length);
- Material: Aluminium, glass, stainless steel, wood, reeds;
- Energy: Solar powered with a heavy-duty battery in each unit and back-up generator (petrol/diesel);
- Energy: Stove and hot water operated with LP gas;
- Waste management: Fusion Wastewater Treatment Plant, domestic waste bins (separated); and
- Facilities and amenities: Outdoor decks, lounge, kitchen, dining area, sleeping area and bathroom.

Each boat will be able to accommodate 2 guests.

The boats will be delivered to the lodge pre-made, and it is anticipated some assembly, furnishings and other minor activities will be undertaken once launched. Construction activities will not be undertaken. The houseboats will be launched from the existing boat launching area.

The houseboat design will look something similar to that presenter in Figure 2 and detailed further in Appendix 6.



Figure 2 – Concept design of the proposed houseboats (Fox Brown Creative (FBC), 2016)

3.6. OPERATIONAL PHASE

The houseboats will be anchored semi permanently on the Kwando River in locations as identified on Figure 1. They will remain in this position unless maintenance requires the boats to be moved back to the lodge so that activities can be undertaken.

The houseboats will be accessed by guests and personnel from the lodge by use of tender boats. All supplies such as food, fuel, equipment and other goods will also be transported via tender boats. The fuel required for the backup generators and gas for the stoves will also be brought to each houseboat, and refuelled as and when required.

The anticipated lifespan for the houseboats is approximately 25 years, which may be extended with regular maintenance.

3.6.1. TOURIST ACTIVITIES

Guests staying on the houseboats will have exclusive use, and will sleep and eat on board. Each houseboat has a working kitchen and braai area which will be operated by a member of personnel.

Existing activities and services offered by the lodge will be available to the houseboat guests. The operations and activities undertaken will be compliant with the existing arrangements at the lodge, for example, the same rules on fishing will be applied to the guests using the houseboats. Additional tender boats may be required as a result of these activities.

3.6.2. PERSONNEL AND EMPLOYMENT

The operations of the houseboats will create several additional jobs at the lodge. The Namushasha River Lodge has signed an Employment and Skills Development Plan with the Mashi Conservancy (Appendix 7). The main objectives of this Employment and Skills Development Plan are to;

- clarify employment and recruitment procedures of local community members at the Lodge;
- clarify and adhere to Employment targets;
- formulate plans for the development of skills of local employees; and
- develop a framework for regulating Social Responsibility efforts, assistance programmes, donation and community welfare efforts by the Namushasha River Lodge.

3.6.3. SEWERAGE AND GREYWATER

The houseboats will use a completely closed solid waste management system to ensure that no solid waste or untreated sewage will be discharged into the river. The closed system will treat and disinfect water prior to release to the river. The system is designed to service up to 3000 litre of sewerage per day, which is equivalent to 20 persons (+/- 150lt average daily demand per person) (see Appendix 8), thus can accommodate the operations of the houseboats easily (a maximum of two persons will use the boat at any given time).

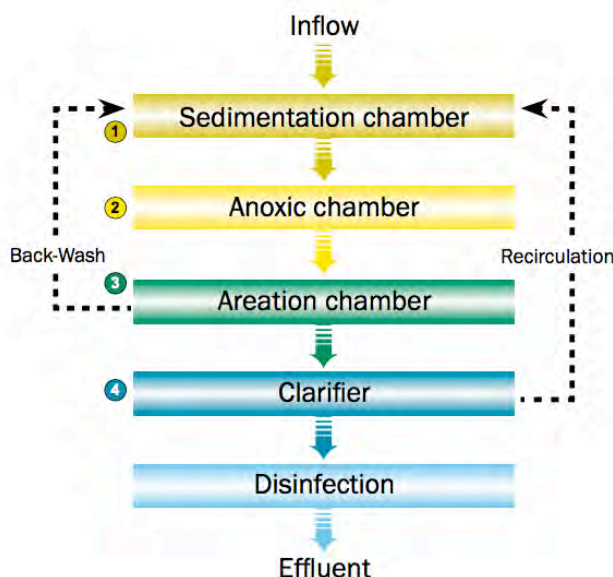


Figure 3 – Fusion Activated Sludge Sewer Treatment Plant Process

A discharge permit will be applied for at the Department of Agriculture Water and Forestry for the operations of this system and discharge to the environment. As per the conditions of the permit, regular water samples will be taken from those boats to ensure the treated water quality comply with the prescribed general standards. Where water quality does not meet prescribed standards, the effluent will be contained on the houseboats and pumped into the existing on-land Namushasha waste water treatment plant for further treatment.

3.6.3.1. GENERAL WASTE

The houseboats will be equipped with designated rubbish bins to ensure that all domestic waste is collected and disposed of sustainably through the existing waste management arrangements on the lodge. Waste separation will be practised, to ensure that all recyclable material is collected and sent for recycling.

3.6.3.2. HOUSEBOAT RENOVATIONS AND MAINTENANCE

The houseboats will have regular maintenance to minimise loss of containment, avoid faults from occurring and reduce the risk of accidents. The EMP provides further details of regular maintenance and mitigation measures.

Ad hoc maintenance may be required for major modifications, repairs or renovations. Any structural alterations or sewerage system alterations will obtain approval from the MAWF prior to works commencing. The houseboats will require adhoc maintenance which will be carried out in accordance with the EMP.

3.6.4. DECOMMISSIONING PHASE

The design life of the houseboats is 25 years and is expected to extend beyond this with regular maintenance. When the houseboats become too costly or pose a threat to the environment, they will be decommissioned.

The activities within this phase are unknown at this time. Is expected that this phase would take between one to two months and a decommissioning plan will be developed setting out the activities and waste management arrangements.

4. PROJECT ALTERNATIVES

4.1. INTRODUCTION

During design evolution of the proposed project, alternatives have been considered and decision making has been supported by environmental assessment work. The assessment of these alternatives is presented below.

Alternatives considered are as follows:

- **Option 1** – Acquisition of four new houseboats, integrating them into the Namushasha River Lodge along the Kwando River supporting the growth of the lodge and available options to guests.
- **Option 2** – Improve existing arrangements at the lodge, including modification to existing game viewing and fishing boats (upgrading existing boats).
- **Option 3** – Do not proceed with upgrades or new facilities.

In addition to the above project alternatives, various locations to site the houseboats were reviewed. As these alternatives are considered a part of design evolution and optimisation, the preferred site for each boat will be carefully identified when the semi-permanent mooring is installed. The local ecology and river geomorphology will be taken into consideration to ensure effects are minimised.

The detailed design of the houseboats has identified the best available technology, including waste water treatment and energy sources. The design has taken into consideration the surrounding environment to minimise visual impacts and allow the new structures to be integrated and blend into the local landscape. The detailed design continues to be developed and this environmental assessment will feed into the final design.

4.2. RISK ASSESSMENT METHODOLOGY

The objectives of the risk assessment were to:

- Identify areas of uncertainty that need further study to enable a more accurate assessment of risks to be made;
- Compare the risks associated with the four scenarios;
- Identify risk controls and assess the residual risks associated with the four scenarios; and
- Identify where further study is needed to reduce the risks associated with the four scenarios to reduce risks to acceptable levels.

Table 3 presents the environment and social risk assessment matrix applied to the risk assessment.

For each of the alternatives, the high levels hazards were identified, potential impacts highlighted, and risk assessed without any mitigation controls in place. Mitigation controls were then identified and documented, and a revised risk assessment undertaken, resulting in a revised risk ranking.

Table 3 – ECC Environment and Social Risk Assessment Matrix

			Environment & Social - Risk Assessment Matrix 				
			Consequence				
			Environment	Property/Production	Reputation	Minor	Medium
			No environmental impact. 100 L spill contained within bund. No material to the environment.	Minor financial loss (Under R5,000 - R 50,000)	Community complaint but does not affect standing with community or regulator	Minor environmental impact rectified in-house <1 Month. 500L spill contained within secondary bund on-site. No material to the environment.	Moderate financial loss (R20,000 - R500,000)
			No financial loss <R5K	Community complaint that does affect standing with community or regulator	Major environmental impact requiring large scale outside assistance 6-12 months. Off-site environmental release with short-term effects (<1 week).	Major environmental impact with detrimental environmental effect Permanent or irreversible. Spill results in death of plants and animals, effects long-term and obvious.	Major financial loss (R500,000 - R2,000,000)
			No community complaint or regulator issue	Complaint that affect standing with community or regulator which may result in shutdown of <1 week	Huge financial loss (Over R2,000,000)	Complaint that affect standing with community or regulator which may result in shutdown of >1 week	
			Minor	Medium	Serious	Major	Catastrophic
Likelihood	Is expected to occur in most circumstances (many times a day)	Almost Certain	Moderate (10)	High (15)	Critical (21)	Critical (24)	Critical (25)
	Will probably occur in most circumstances (several times a week)	Likely	Moderate (9)	High (14)	High (16)	Critical (22)	Critical (23)
	Might occur at some time (several times a month)	Possible	Low (5)	Moderate (6)	High (13)	Critical (19)	Critical (20)
	Could occur at some time (once a year)	Unlikely	Low (3)	Low (4)	Moderate (8)	High (12)	Critical (18)
	May occur only in exceptional circumstances (once every ten years)	Rare	Low (1)	Low (2)	Moderate (7)	High (11)	High (17)

4.3. RISK ASSESSMENT OUTCOMES

The risk assessment is presented in Table 4 to Table 6. Whilst all three options have adverse risks, most of which can be appropriately managed, Option 1 provides significant benefits which are not reflected in the risk assessment table. These include:

- Support eco-tourism and the tourism industry;
- Increases job opportunities;
- Supports the development of the lodge and the GCN; and
- Provides additional tourist services and experiences.

The conclusion of the risk assessment led to Option 1 having the least risk to the environment and provides advantages over the other options. This option was therefore taken forward for further design development.

Table 4 – Alternatives Risk Assessment: Option 1 - Introduction of houseboats onto Kwando River

Hazard Identified	Impact / Risk (What can go wrong?)	Inherent Risk Assessment			Mitigation Controls	Revised Risk Rank		
		Consequence	Likelihood	Result		Consequence	Likelihood	Result
Removal of Vegetation to site the houseboats and access	Removal of protected species	Serious	Possible	Moderate (6)	Environmental Manager to conduct inspections to ensure vegetation removal is compiled with Avoid removal of vegetation by careful site selection	Minor	Rare	Low (2)
Houseboat activities on the river banks and in the river	Alteration to surface water flow	Serious	Unlikely	Moderate (8)	Avoid activities on river banks by careful site selection Avoid any modifications to geomorphology of rivers The presence of and the mooring of the boats should not affect river flow or flora and fauna in the area	Minor	Rare	Low (2)
Houseboat operations	Potential water pollution (sewerage, greywater leaks – fuel and oil, spills)	Serious	Possible	High (13)	Use of a well-designed and disinfecting water management system. Should the water quality not meet the prescribed general standards, the effluent may not be discharged into the environment, but should rather be contained on the houseboats and pumped into the on land Namushasha waste water treatment plant for further treatment Only inducted personnel to work on houseboats Environmental Manager to conduct inspections to ensure vegetation removal is compiled with	Minor	Possible	Low (5)
Impacts on local fauna from increased boat	Disturbance to fish and movement of	Medium	Possible	Moderate (6)	Appropriately trained staff, regular training	Minor	Rare	Low (2)

Hazard Identified	Impact / Risk (What can go wrong?)	Inherent Risk Assessment			Mitigation Controls	Revised Risk Rank		
		Consequence	Likelihood	Result		Consequence	Likelihood	Result
movements and tourist activities	mammals' due boat operations				Awareness for tourists (posters, talks from guides) Strict operations Suitable routes followed to avoid potential migration paths. Appropriate siting of the house boats to avoid potential migration routes			
Cumulative Impacts with current operations	Combined impacts from current operations – increased number of boats leading to increased risk of the above impacts	Serious	Possible	High (13)	Application of the above controls Increase of 8 tourists per night – not significant increase	Minor	Likely	Moderate (9)
OVERALL RISK								LOW

Table 5 – Alternatives Risk Assessment: Option 2 - Modification to existing game viewing and fishing boats (upgrading existing boats)

Hazard Identified	Impact / Risk (What can go wrong?)	Inherent Risk Assessment			Mitigation Controls	Revised Risk Rank		
		Consequence	Likelihood	Result		Consequence	Likelihood	Result
Lifespan of existing infrastructure is reduced due to lack of alternatives to meet demand	Increase resources and inefficient equipment (increase energy use for example) and increase costs of maintenance	Medium	Likely	High (14)	Completely decommission the boats, dismantle and rebuild according to viable specifications	Medium	Likely	High (14)
Lodge not keeping up with demand or competition	Economical loss Not developing the business	Medium	Likely	High (14)	None identified	Medium	Likely	High (14)

Hazard Identified	Impact / Risk (What can go wrong?)	Inherent Risk Assessment			Mitigation Controls	Revised Risk Rank		
		Consequence	Likelihood	Result		Consequence	Likelihood	Result
Existing boats not available	Loss of revenue	Medium	Likely	High (14)	None identified	Medium	Likely	High (14)
Modification of boats on the river	Water Pollution	Medium	Likely	High (14)	None identified	Medium	Likely	High (14)
OVERALL RISK								HIGH

Table 6 – Alternatives Risk Assessment: Option 3 - Do not proceed with the upgrades or new houseboats

Hazard Identified	Impact / Risk (What can go wrong?)	Inherent Risk Assessment			Mitigation Controls	Revised Risk Rank		
		Consequence	Likelihood	Result		Consequence	Likelihood	Result
Lodge not keeping up with demand or competition	Economical loss Not developing the business	Medium	Likely	High (14)	None identified	Medium	Likely	High (14)
Lack of appropriate facilities for boating experiences	Degraded boats – safety issue	Serious	Possible	High (13)	None identified	Serious	Possible	High (13)
Lack of appropriate facilities for boating experiences	Increase pollution risk	Medium	Likely	High (14)	None identified	Medium	Likely	High (14)
OVERALL RISK								HIGH

5. RECEIVING ENVIRONMENT

5.1. ENVIRONMENTAL CONTEXT

Namushasha River lodge is located in the Zambezi Region in the north of Namibia. The population of the Zambezi Region was 90,596 in 2011 (around 4% of the country's population), with 5,658 living in the Kongola Constituency (National Statistics Agency, 2014); the constituency where the lodge is located.

The region has a mixed cultural diversity, given that it borders Zambia, Angola and Botswana. Various cultures inhabit the area, including the Lozi, Mafwe and the Ovambos.

The Zambezi Region is situated in a tropical area which has a humid subtropical climate, with the average temperature exceeds 30°C for most of the year. The average rainfall is between 250-330 mm per year, with the least precipitation occurring in June and the highest occurring in January. The terrain is mostly made up of swamps, floodplains, wetlands and woodland, and is between 800 to 1000m above sea level. The regional geology group is the Kalahari and Namib Sands (ATLAS). The underlying aquifer is classified as a productive porous aquifer, with the groundwater flowing south.

5.2. INFRASTRUCTURE AND BUILT ENVIRONMENT

There is limited infrastructure in the area due to the remote and rural location. As a result, sources of noise are limited to the natural environment; the wind and rustling of vegetation; local communities; flowing water and the occasional activity on the lodge for maintenance. Artificial light is also limited to the lodge and small communities, with no major light sources in the area.

5.3. BWABWATA NATIONAL PARK

The Bwabwata National Park is located on the west side of the Kwando River. The National Park was established in 2007 and is approximately 6,300 square kilometres. The area is an important migration route from Botswana to Angola for African Elephant and other game species. Approximately 55,000 people live in the park, who are involved in the planning and management of the park by the government. The park hosts a range of flora and fauna species, including various internationally protected bird species.

5.4. SURFACE WATER

The Kwando River, one of the four perennial rivers in Namibia, originates from the central plateau of Angola and flows through the Zambezi Region and into the Linyanti Swamp on the northern border of Botswana. Downstream of the swamp, the Linyanti River flows easterly into the Chobe River which turns into the Zambezi River.

The Kwando River meanders and has many small channels which fill during the rainy season. Swampy corridors and areas are located either side of the river, as seen in Figure 4.



Figure 4 – The Kwando River

5.5. ECOLOGY

The general biome of the areas is classed as the Caprivi Floodplains and Caprivi Mopane Woodland.

5.5.1. AMPHIBIANS, REPTILES AND INVERTEBRATES

The Zambezi Region has 25 amphibians species (15 of which is largely dependent on riverine habitats), 67 species of reptiles and 79 fresh water fish species. All of which are likely to occur within the proposed Namushasha River lodge area (Mendelsohn et al., 2003).

The riverine ecosystems in the Zambezi Region have a wide range of snake species and common snakes are; cobra, puff adders (inhabit grasslands and bush ecosystems), black and green mamba (inhabiting the riverine ecosystems). The area is also known to have a wide number of lizard species and tortoises. found in the near surrounding environs.

5.5.2. MAMMALS

The Katima-Kongola area along Kwando River has extremely high diversity in all faunal species yet a low occurrence of large mammals. The Zambezi Region has over 116 mammal species. Most of wildlife is concentrated in the Bwabwata and Kaudum National parks, as human activities have forced mammals to move away into areas where there is less disruption. The Mahango area of Bwabwata area has the highest concentration of large mammals in the country and the boasts the greatest diversity of birds (Mendelsohn et al., 2003). These animals are important attractions for tourists to that area of the Kavango and Zambezi regions.

5.5.3. AVIAN DIVERSITY

The Kwando river basin forms part of the internationally important bird area supporting globally threatened species and is an avian diversity hotspot. The area supports 12 of the 25-endangered species in Namibia. Bird populations are under threat due to pollution and uncontrolled fishing. In the rivers and associated breeding habitats African Skimmers, African Finfoot, African Fish-eagle and Rock Pratincole are likely to inhabit the area, none of which are threatened. The floodplains and marshes host species such as the African Marsh Harrier, Rufous-bellied Heron, Saddle-billed Stork, Slaty Egret and Wattled Crane, the latter two are classified as vulnerable under the International Union for Conservation of Nature (IUCN) Red List of Threatened Species.

5.5.4. TREE AND SHRUB DIVERSITY

The Zambezi region's great variety of natural vegetation resources are most simply divided between those that live along the riverine ecosystems and those inland. The region is prone to bush fires during the winter season and early summer. These woodlands are dominated by a variety of tree species. The best-known tree is kiasat from which large quantities of timber were harvested over the past 60 years. There are many other valuable plants, such as false mopane or ushivi (also used for timber), mangetti (for kashipembe liquor), blue sourplum, bird plum, baobabs, jackal berry and monkey oranges.

Grasslands with species such as *Vossia cuspidata*, *Cynodon dactylon* and *Setaria sphacelata* dominate the area where a proposed project site is located. There is a riverine forest consist of *Acacia nigrescens*, *Peltophorum africanum* and *Diospyros mespiliformis* as dominant trees and a dense shrub under growth of variety of species such as *Combretum imberbe*, *Acacia erioloba*, *Terminalia sericea* and *Bauhinia petersiana*.

5.6. SOCIAL ENVIRONMENT

The Kongola Constituency comprises mainly of communal areas and is dominated by Silozi and Rukavango speaking dialects.

The main agriculture activities in the region are: Crop farming (53%), Livestock farming (23%), and Poultry farming (8%). Portions near the Linyati, Kwando and Okavango rivers have been cleared for subsistence farming and various tourism establishments are along the rivers.

Kongola Constituency's unemployment rate is 37.1% (higher than national of 36.9%) and the main employment industries are Agriculture, Forestry and Fishing. The unemployment factors are attributed to large-scale subsistence farming and limited formal employment opportunities. The main sources of income include farming activities (42.96%), wages and salaries (21.91%), old age pensions (12.21%) and business activities (non-farming) (11.94%). Literacy rate in the constituency stands at 69% (below the national rate 89%).

The total financial investment into the conservancy by Namushasha River Lodge in 2016 was NAD 2,644,767.00 (including conservancy levy fees and staff remuneration). This is likely to increase with the addition of the Houseboat activity.

6. IMPACT ASSESSMENT METHODOLOGY

6.1. PURPOSE OF AN ENVIRONMENTAL ASSESSMENT

The EIA process in Namibia is governed and controlled by the Environmental Management Act, 2007 and the EIA Regulations No. 30 of 2012, which is administered by the Office of the Environmental Commissioner through the DEA of the MET.

An EIA is the process of identifying, predicting, evaluating and mitigating the potential effects of a proposed project on the natural and human environment. The aims of the EIA process and subsequent report are to apply the principles of environmental management to proposed activities; reduce the negative and increase the positive effects arising from a proposed project; provide an opportunity for the public to consider the environmental impacts of a proposed project through meaningful consultation; and to provide a vehicle to present the findings of the assessment process to competent authorities for decision making.

The EIA process can aid the design development process through incorporating design changes early on into the project planning to avoid or reduce environmental impacts, as well as design aspects such as siting, technology and scale. Mitigation measures and recommendations are identified through collaborative working between the EIA team and the proponent's team, including engineers, architects and project managers.

6.2. THE ASSESSMENT PROCESS

The EIA methodology applied to this EIA has been developed using the IFC standards and models, in particular Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012); Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008); international and national best practice; and over 25 years of combined EIA experience.

6.3. THE ASSESSMENT PROCESS FOLLOWED BY ENVIRONMENTAL COMPLIANCE CONSULTANCY

The process followed through the basic assessment is illustrated in Figure 5 and detailed further in the following sections.

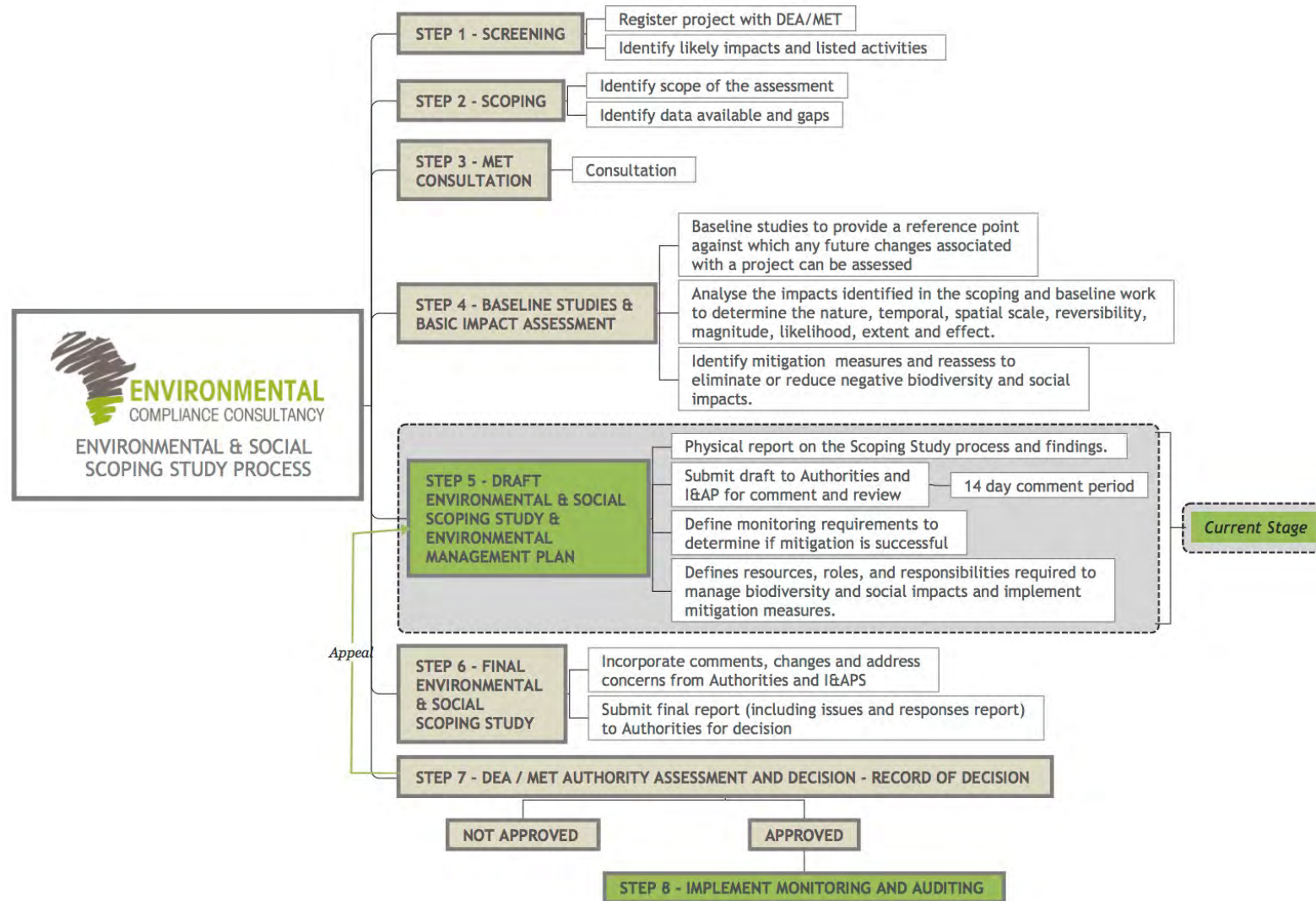


Figure 5 – Environmental Assessment Process

6.3.1. SCREENING OF THE ENVIRONMENTAL ASSESSMENT

The first stages in the EIA process is to register the project with the DEA/MET and undertake a screening exercise to determine whether it is considered as a listed activity under the Environmental Management Act, 2007 and associated Regulations and if significant impacts may arise from the project. As discussed in Section 1.2, the original approach was to amend the existing Environmental Clearance Certificate held by Namushahsha River Lodge. However, through further consultation with MET:DEA, it was decided that a separate Environmental Clearance Certificate should be obtained for the houseboats.

As part of the Environmental Clearance Certificate Application, a scoping report (this report) was deemed appropriate to present the assessment of potential effects and suitable mitigation measures, and whether there are any significant issues and/or effects that require further investigation.

6.3.2. SCOPING OF THE ENVIRONMENTAL ASSESSMENT

To ensure the assessment was concise and focussed, a scoping exercise was undertaken to identify environmental and social receptors that may be affected by the proposed project. This exercise was undertaken through a preliminary high-level assessment of the proposed project against the receiving environment. A source-pathway-receptor model was applied:

- Source of potential impact - where does the impact come from, e.g. the activity, ground excavation, which emits dust.
- The potential pathway – how can the pollution / impact travel through the environment e.g. wind direction and speed.
- The receptor and effect – what can be affected and how e.g. water body, sedimentation, water quality affected.

In determining a potential effect, a link between each element needs to be identified. Where a link was found to be absent, the topic or receptor was scoped out and was not taken forward for further consideration in the assessment. Where links are present, that topic or receptor was taken forward for assessment where there was potential for the effect to be significant. Section 7.2 provides further information on the scoping of the proposed project.

6.3.3. CONSULTATION

One of the objectives of the EIA process is to provide an opportunity for stakeholders to consider the proposed project and potential environmental and social impacts. As discussed in Section 1.2, the MET:DEA reviewed the preliminary Environmental Scoping Report and EMP which was to be submitted as an addendum to the existing Environmental Clearance Certificate held by the lodge. Comments on the findings of the assessment have been provided and incorporated into this report.

Through this consultation, the MET advised that the MAWF is the competent authority for this project due to the siting and operations occurring within a watercourse. This Environmental Scoping Report and EMP as part of the Environmental Clearance Certificate application will be submitted to both MET and MAWF.

Through the joint venture between GCN and the Mashi Conservancy (see section 3.2), engagement with the conservancy management team has been undertaken and the conservancy buy-in to the establishment of the houseboats (see Appendix 9), as they recognise the benefits the project will bring to the area.

6.4. ASSESSMENT METHODOLOGY

6.4.1. LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

The following limitations and uncertainties associated with the assessment methodology were observed:

- Topic specific assessment guidance has not been developed in Namibia. A generic assessment methodology was applied to all topics using IFC guidance and professional judgement; and
- Guidance for CIA has not been developed in Namibia, and a single accepted state of global practice has been established. The IFC's guidance document (International Finance Corporation, 2013) has been used for the CIA.

6.4.2. DETERMINATION OF SIGNIFICANCE

The evaluation and prediction of environmental and social impacts requires the assessment of the project characteristics against the baseline of environmental and social characteristics and ensuring all potentially significant impacts are identified and assessed.

The significance of an impact was determined by taking into consideration the combination of the sensitivity and importance/value of environmental and social receptors that may be affected by the proposed project; the nature and characteristics of the impact; and the magnitude of potential change. The magnitude of change (the impact) is the identifiable changes to the existing environment which may be direct or indirect; temporary/short term, long term or permanent; and either beneficial or adverse.

- The **sensitivity and value of a receptor** is determined by identifying how sensitive and vulnerable a receptor is to change, and the importance of the receptor (internationally, nationally, regionally and locally).
- The **nature and characteristics of the impact** is determined through consideration of the frequency, duration, reversibility and probability and the impact occurring.
- The **magnitude of change** measures the scale or extent of the change from the baseline condition, irrespective of the value. The magnitude of change may alter over time, therefore temporal variation is considered (short-term, medium-term; long-term, reversible, irreversible or permanent)

The significance of impacts has been derived using professional judgment and applying the identified thresholds for receptor sensitivity and magnitude of change (as discussed above) and guided by the matrix presented in Figure 6. The matrix is applicable for impacts that are either positive or negative. The distinction and description of significance and whether the impact is positive or negative is provided in Table 7.

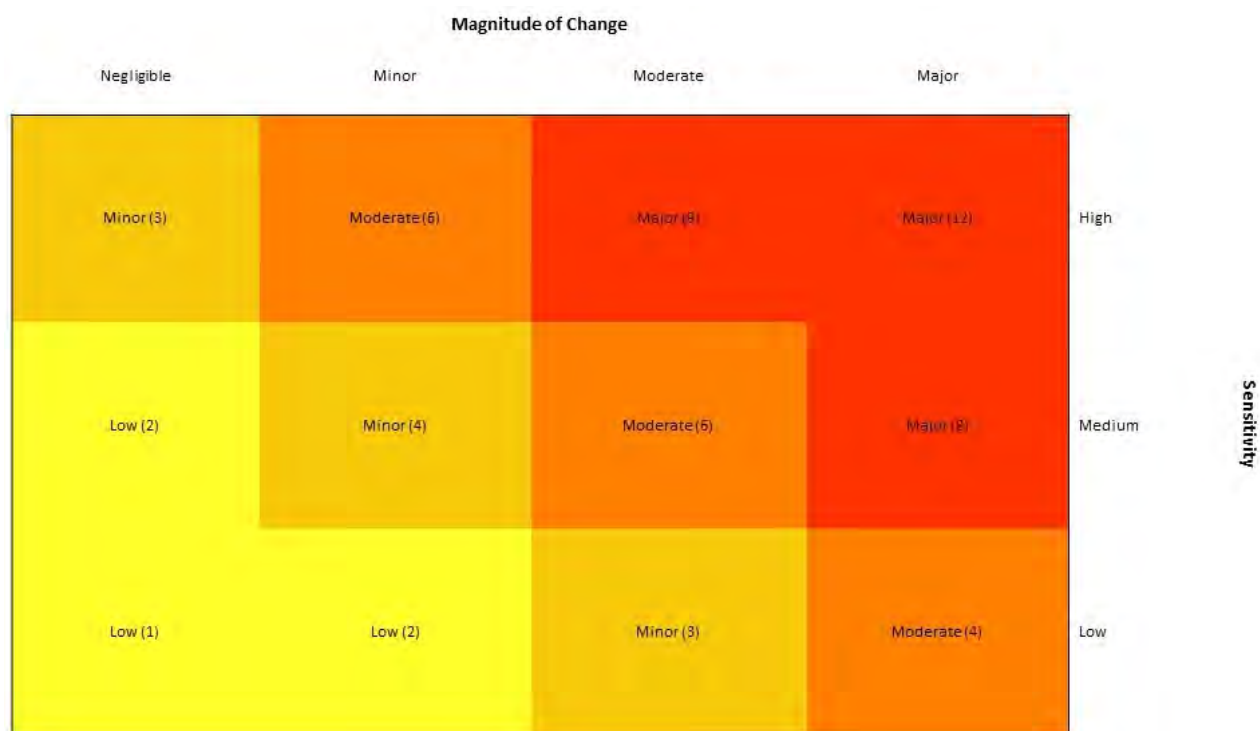


Figure 6 - Guide to significance ratings

Table 7 – Significance Description

SIGNIFICANCE OF IMPACT	DESCRIPTION
Major (negative)	Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non- reversible on a national scale and/or have international significance or result in a legislative non- compliance.
Moderate (negative)	Impacts are considered within accepted limits and standards. Impacts are long term, but reversible and/or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/features that are unique and which, if lost, cannot be replaced or relocated.
Minor (negative)	Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short term, reversible and/or localized in extent.
Low (negative)	Impacts are considered to be local factors that are unlikely to be critical to decision-making.
Low – Major (Beneficial)	Impacts are considered to be beneficial to the environment and society:

It most instances, moderate and major adverse impacts are considered as significant, however there may be some instances where impacts are lower than this but are considered to be significant. The following thresholds were therefore used to double check the assessment of significance had been applied appropriately; a significant impact would meet at least one of the following criteria:

- It exceeds widely recognized levels of acceptable change;
- It threatens or enhances the viability or integrity of a receptor or receptor group of concern; and
- It is likely to be material to the ultimate decision about whether or not the environmental clearance certificate is granted.

Where significant impacts are predicted, further investigation may be required to identify the type of effects and appropriate mitigation.

7. IMPACT ASSESSMENT FINDINGS

7.1. INTRODUCTION

As discussed in Section 6.3.2, the assessment has focussed on environmental and social topics which may be affected by the proposed project. The EMP (see Appendix 3) provides measures to avoid and minimise environmental and social impacts through best practice and mitigation embedded into the design. The scoping exercise considered these best practice measures as well as the design of the proposed project and identified where impacts may potentially still occur and where further mitigation or further investigation may be required. After undertaking the scoping exercise, the key areas of concern for the proposed project are the potential impacts on ecological receptors and surface water features.

7.2. SCOPING

Due to the nature of the proposed project (activities), the potential pathways of causing an impact and the surrounding environment (the receiver), the following environmental and social topics were scoped out of the assessment, as it was deemed unlikely that the proposed project would cause an adverse effect on receptors categorised in topics listed in Table 8

Table 8 – Topics Scoped out of the assessment

TOPIC	JUSTIFICATION
Soils and Geology	The operations of the houseboats will not remove or disturb the ground; therefore, no impacts are likely to occur on the ground resources.
Terrestrial Ecology	The embankments and surrounding area where the houseboats will be sited is covered by mature and important vegetation species. Existing access road will be used to access the houseboats docking sites and no need to clear significant areas of vegetation.
Topography	Operations of the houseboats and associated activities will not alter the local topography.
Land use	No land take is required as a result of the houseboats.
Groundwater	Operations of the houseboats and associated activities will not interface with the groundwater.
Built environment, Infrastructure and waste management	Operations of the houseboats and associated activities will not disrupt any infrastructure or buildings.
Cultural heritage	Operations of the houseboats and associated activities will not result in any known heritage receptors being affected, nor is there a risk of activities unearthing undiscovered remains.
Socio-economics (employment, local businesses, community, demographics & tourism)	A small number of jobs will be generated as a result of the operations of the houseboats, however this is unlikely to have a significant benefit to the local community. The local demographics or economic development of other lodges will be affected.
Sense of place (landscape and visual amenity, residential and recreational views, lighting)	It is acknowledged that the houseboats would integrate a new type of infrastructure into the environment, however the design of the boats has incorporated environmental features to minimise effects and due to the existing lodge and associated activities, the overall visual and landscape effects are not considered to be significant.

TOPIC	JUSTIFICATION
Air Quality	Potentially a small increase in aerial emissions, however these will be insignificant and would not cause the local air quality to change.
Noise and vibration	There may be a slight increase in noise levels as a result of operating the houseboats, however the magnitude of change is expected to be small, and thus not significant.
Climate and meteorology	The houseboats will have no impact on the climate of Namibia.

The following topics were thus scoped into the assessment as there was potential for the proposed project to adversely affect receptors within these topics:

- Ecology
- Surface water

These two topics have been the focus of this assessment, which has considered the operation and decommissioning of the proposed project.

7.3. ECOLOGY

7.3.1. AQUATIC ECOLOGY

7.3.1.1. HOUSEBOAT OPERATIONS AND ASSOCIATED ACTIVITIES: DISTURBANCE TO AQUATIC LIFE

With the integration of four new houseboats on the Kwando River and potential increase in number of tender boats cruising on the river, there is potential for aquatic life, including fish, birds and mammals to be disturbed from these activities. This disruption could affect feeding, sleeping or general behaviour of receptors.

This affect would occur for a short temporary duration however could potentially be a frequent occurrence and will last for the duration of the operations of the houseboats (up to 50 years). To minimise the potential effects, all staff will be trained and will have an understanding of the local environment and wild life, and measures to be taken to avoid direct impacts (the EMP provides further details). Certain areas will be restricted to boat activities (routes, fishing or other activities) and tourists will be informed of the rules of the river. In particular, areas used by vulnerable or protect species such as the Slaty Egret and Wattled Crane, should be avoided and buffer areas shall be applied to minimise effects on these species.

With the application of the best practice mitigation measures, the likelihood of this impact occurring is low and the magnitude of change is considered to be minor. It is not envisaged that individuals will be injured or killed and would not permanently move away from or avoid the area as they are used to exiting activities on the river. If individuals are affected, the species located in the area (mammals, birds, amphibians and reptiles) will be able to move away from the area where there is disturbance.

Impacts would be felt by individuals and not populations, therefore the sensitivity of receptors to this activity is considered to be low and the overall effect is considered to be minor adverse and is not considered to be significant.

7.3.1.2. GENERAL HOUSEBOAT OPERATIONS AND MAINTENANCE: POLLUTION & FLORA AND FAUNA

General houseboat operations and maintenance activities could lead to the loss of oil, fuel and chemicals into the aquatic environment, as well as the introduction of new food sources (guests throwing food into the river). These substances could adversely affect the water quality (see Section 7.4.1), and directly and indirectly affect the flora and fauna of the river, and potentially downstream receptors. The introduction or accumulation of chemicals or other substances are considered as pollution and can upset the balance of an aquatic ecosystem, for example the release of chemicals could reduce the phytoplankton and invertebrates, thereby reducing food sources for fish.

The introduction of substances and potential spills will be avoided through general best practice measures (see EMP), regular maintenance and suitable training. The houseboats will have dedicated closed solid waste management system that will treat and disinfect water prior to release to the river. Regular maintenance will occur ensuring loss of containment is avoided and minimised and any fuels, oils or chemicals used during operations are not stored on the houseboats and are used in small quantities where possible.

Any refuelling will be undertaken in controlled areas by suitable qualified personnel and the use of chemicals will be minimised as much as possible and collected and disposed of through existing arrangements on the lodge or through the sewerage system. Guests will also be made aware of the environmental issues and asked not to feed the wild life. The EMP provides more detail on the best practice mitigation measures.

Due to the nature of the river; expected flow rate and volume, any minor losses (drips or oils/fuels) or discharge or effluent with chemicals (washing the boat) through general operations and regular maintenance works would not cause a significant impact: a local area would be adversely affected for a very short period of time. The volume of water in the river would dilute any contamination/pollution considerably and therefore the magnitude of change would be negligible.

Accidental large spills could however cause a significant impact and adversely affect aquatic flora and fauna. Mitigation measures to avoid and manage spills are contained in the EMP. As this impact would be an emergency / accident, a realistic impact assessment cannot be undertaken, and measures to avoid this should avoid this occurrence from happening.

7.3.1.3. GENERAL HOUSEBOAT OPERATIONS AND ASSOCIATED ACTIVITIES: INCREASE IN NOISE AND LIGHTING

As discussed above, the houseboats and increase in guests and thus number of tender boats on the river is likely to increase local noise levels and night time lighting.

Due to the remote location of the lodge and site for the houseboats, there are limited noise sources and artificial lighting, and therefore any change to the baseline would be felt by the receiving environment, including local fauna (mammals, birds, reptiles, fish) and guests wanting to star gaze.

The sources of noise are likely to be from engines of tender boats, generators and voices from guests. These noise sources are not expected to be constant, however will increase noise levels for the duration of the lifetime of the houseboats. Through careful siting of generators, regular maintenance of engines and generators, and through the communication of environmental awareness, the noise levels are not expected to increase significantly and where receptors such as birds and fish are affected, they can move away from the area during these times.

Artificial lighting could affect the riparian ecology, in particular the behaviour of birds, invertebrates, amphibians and fish that rely upon moonlight to navigate, or mate or feed at night time. Lights can also attract insects, which in turn attracts predators such as spiders, thereby altering the ecosystem.

Sources of light will be from the houseboats and walkways, and are likely to shine on the river and surrounding area. Lighting will be designed so that impacts are avoided or reduced, for example light shine will be avoided through appropriately located lights, low-beam lighting (low LED), use of energy efficient light forms, avoid lighting where unnecessary and avoid lights being grouped together. Lights will be switched off when not required and the houseboats will ensure light shine out of the houseboat is avoided. Guests will be informed of these potential effects and measures they can apply to minimise their impacts.

The effects on aquatic fauna from noise and lighting will be a direct adverse local effect affecting the natural behaviour of animals. These impacts will occur for the duration of the operations of the houseboats (50 years). The receiving receptors are important to the local area and are part of the reasons for why tourists visit the area, therefore are considered to be of medium importance and value and sensitive to these impacts. With the application of the mitigation measures and the duration of the impacts occurring, the magnitude of change is predicted to minor as there may be

some changes in attributes and potentially a disturbance to wildlife. The significance of effect is considered to be minor adverse.

7.4. SURFACE WATER

7.4.1. GENERAL OPERATIONS: SURFACE WATER QUALITY

It is unlikely that the houseboats will affect the water flow of the Kwando River, or the geomorphology and turbidity as there are no direct activities impacting these receptors, however, there is potential for the water quality to be affected. Through general operations, including the fuel and oil containers for engines and generators, day to day maintenance such as washing the boats and generation of greywater and sewerage, and ad hoc maintenance, for example painting, there is potential for fuel, oil and chemicals entering the watercourse. As a result, the water quality could be affected which could have an indirect impact on the local and downstream flora and fauna (the ecological effects are discussed in Section 7.3). By increasing toxins, changing the pH or altering the nutrient content of the water, other indirect impacts could occur, for example the water could become unsuitable for drinking or irrigation; or fish populations could be affected thereby impact the fishing business in the area.

Section 7.3.1.2 provides the mitigation measures to minimise effects on the water quality and therefore will not be repeated here.

With the integration of four houseboats to the river, it is likely that some form of liquid pollution / contamination will enter the watercourse throughout the operations. However, these volumes will be small and with the volume of water and flow rate of the river, the dilution rate will be high and therefore the water quality is unlikely to change. With the application of design features and best practice mitigation measures, the significance of effects is considered to be low.

7.4.2. SUMMARY OF EFFECTS

A summary of the predicted effects is provided in Table 9. The effect of most concern arises from the increase in noise levels and lighting from the house boats and effects on mammals, birds, fish amphibians and insects. The EMP provides a range of mitigation measures that will ensure these effects are minimised and avoided where possible.

Table 9 - Summary of effects

Activity	Receptor	Impact	Nature of impact	Value & Sensitivity	Magnitude of change	Significance of impact
General operations: Boat activities	– Aquatic Life	Disturbance to aquatic life from boat activities– injury, disturbance, mortality	Moderate duration Local / on-site Direct Adverse Likely	Low	Minor	Low
General operations: Pollution	– Aquatic Life	Pollution entering the watercourse and affecting the water quality which has an indirect effect on the flora and fauna	Short duration but long term Local Direct and indirect Adverse Likely	Low	Negligible	Low
General Operations: Noise and lighting	– Aquatic Life	Disturbance to local fauna from increased noise levels and artificial light. Affect feeding habits, mating rituals and other behaviours	Short duration but long term On-site Direct and indirect Adverse	Medium	Moderate	Minor

Activity	Receptor	Impact	Nature of impact	Value & Sensitivity	Magnitude of change	Significance of impact
			Likely			
General operations: Pollution	– Water Quality	Change in water quality resulting in indirect impacts on flora and fauna	Long-term Local Direct and indirect Adverse Likely	Low	Negligible	Low

8. CONCLUSION

This environmental assessment has focussed on the environmental and social receptors that would likely be affected by the proposed project: ecology, and surface water. All other topics were scoped out of the assessment due to the nature of the activities and the receiving environment. The assessment concludes that significant environmental and social impacts are unlikely to occur as a result of the proposed project. Various mitigation measures have been identified to avoid and reduce impacts as far as reasonable practicable. The assessment is considered to be comprehensive and sufficient to identify impacts, and it is concluded that no further assessment is required.

On this basis, it is of the opinion of ECC that an environmental clearance certificate could be issued, on conditions that the management and mitigation measures specified in the EMP are implemented and adhered to.

REFERENCES

- Gondwana Environmental Committee. (2016). *Namushasha River Lodge Environmental Management Plan 2016-2019*. Windhoek: Gondwana Group.
- International Finance Corporation. (2012). *IFC Performance Standards on Environmental and Social Sustainability*. The World Bank.
- International Finance Corporation. (2013). *Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets*. The World Bank.
- International Finance Corporation. (2017). *A Guide to Biodiversity for the Private Sector. The Social and Environmental Impact Assessment Process*.
- Mendelsohn et al., J. (2003). *Atlas of Namibia*. David Philip.
- Ministry of Environment and Tourism. (2015). *Tourist Statistical Report*. Windhoek: Ministry of Environment and Tourism .
- National Planning Commission. (2017). *National Development Plan*. Windhoek: Republic of Namibia.
- National Statistics Agency. (2014). *Zambezi 2011 Census Regional Profile* . National Statistics Agency.
- Republic of Namibia. (2008). *The Government Gazette of the Republic of Namibia, Draft Procedures and Guidelines for Environmental Impact Assessment and Environmental Management*. Windhoek: Republic of Namibia,.
- Republic of Namibia. (2011). *Namibia 2011 Census Population Projections 2011 to 4041*. Windhoek: Republic of Namibia.

APPENDICES

- 1 – Correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (amendment)
- 2 – Correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (assessment comments)
- 3 – Namushasha River Lodge Houseboat Environmental Management Plan
- 4 - Namushasha River Lodge Environmental Clearance Certificate
- 5 – Namushasha River Lodge Environmental Management Plan
- 6 – Gondwana – Namushasha Houseboats, Interiors Concept
- 7 - Employment and Skills Development Plan with the Mashi Conservancy
- 8 - Fusion Series Waste Water Treatment System
- 9 – Letter of support from the Mashi Conservancy
- 10 – Environmental Practitioners CVs

APPENDIX 1 – Correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (amendment)

Ref: ECC-62-109-LET-07-A
26 October 2017

Ministry of Environment and Tourism
Department of Environmental Affairs
Private Bag 13306
Windhoek
Namibia

FOR ATTENTION: ENVIRONMENTAL COMMISSIONER (MR. TEOFILUS NGHITILA)

Dear Mr Teofilus Nghitila,

RE: REQUEST TO AMENDED NAMUSHASHA RIVER LODGE ENVIRONMENTAL CLEARANCE CERTIFICATE- ESTABLISHMENT OF RECREATIONAL HOUSEBOATS ALONG KWANDO RIVER.

Environmental Compliance Consultancy [ECC] has been engaged by Nature Investment Pty (Ltd) to act on their behalf for the approval process of the proposed establishment of recreational houseboats as expansion of Namushasha River Lodge scope of Activities.

Environmental Compliance Consultancy [ECC] has compiled this request for an amendment report and impact assessment in accordance Section 39 of the Environmental Management Act, 2007 on behalf of Nature Investment Pty) Ltd).

The purpose of this request for amendment is for the establishment of recreational houseboats through the Namushasha Lodge Environmental Clearance Certificate dated 01/07/17. The process covered the following steps, which are reported as follows:

- **COMPLETED FORM 2 (ATTACHED)** – Environmental Management Act 2007, section 39 Application for Amendment of Conditions of Environmental Clearance Certificate
- **REQUEST FOR AMENDMENT REPORT (ATTACHED)** – detailing an environmental impact assessment of the proposed developments.
- **PROJECT SPECIFIC EMP – NAMUSHASHA HOUSEBOATS EMP ADDENDUM 1 (ATTACHED)** – Houseboats EMP: A project specific EMP has been developed for the construction and operations of the proposed recreational houseboats. This is an addendum to the existing approved EMP.

To maintain the financially viability of the proposed developments, operation time is of the essence, and the proponent would appreciate if you afford this assessment your urgent attention.

Yours sincerely,



Stephan Bezuidenhout

Environmental Compliance Consultancy
Email: stephan@eccenvironmental.com



Jessica Mooney

Environmental Compliance Consultancy
Email: jessica@eccenvironmental.com

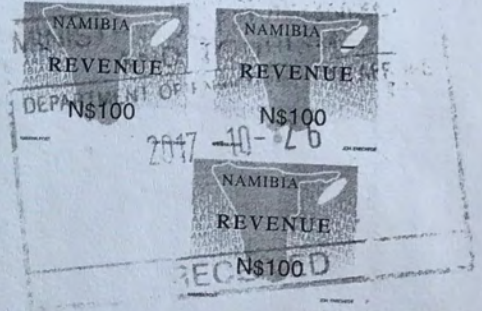
FORM 2

ECC REF: ECC-62-109-FOR-06-A

**REPUBLIC OF NAMIBIA ENVIRONMENTAL
MANAGEMENT ACT, 2007**

(Section 39)

**APPLICATION FOR AMENDMENT OF CONDITION OF
ENVIRONMENTAL CLEARANCE CERTIFICATE**



PART A: PARTICULARS OF APPLICANT

Name of Applicant: Nature Investment Pty (Ltd)

Business Registration: 96/307

Address: P.O. Box 80205
Windhoek, Namibia

Proponent: Nature Investment Pty (Ltd)

Telephone Number: 264 (0)61 230066

Cell Phone Number: 264 (0)81 1563706

Fax Number: 264 (0)61 251863

E-mail Address: enviro@gondwana-collection.com

Name of Contact Person: Mr. Stephan Bezuidenhout

Telephone Number: 00264 81 262 7872

Cell Phone Number: 00264 81 262 7872

Fax Number: +27 (86) 229 4009

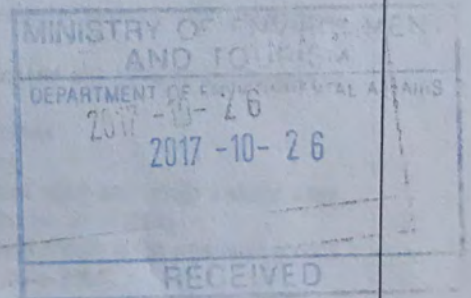
E-mail Address: stephan@eccenvironmental.com

Name of Consultant: Environmental Compliance Consultants cc

Telephone Number: +264812627872

Cell Phone Number: +264812627872

Email: stephan@eccenvironmental.com



Ref: ECC-62-109-LET-07-A
26 October 2017

Ministry of Environment and Tourism
Department of Environmental Affairs
Private Bag 13306
Windhoek
Namibia

COPY

FOR ATTENTION: ENVIRONMENTAL COMMISSIONER (MR. TEOFILUS NGHITILA)

Dear Mr Teofilus Nghitila,

RE: REQUEST TO AMENDED NAMUSHASHA RIVER LODGE ENVIRONMENTAL CLEARANCE CERTIFICATE- ESTABLISHMENT OF RECREATIONAL HOUSEBOATS ALONG KWANDO RIVER.

Environmental Compliance Consultancy [ECC] has been engaged by Nature Investment Pty (Ltd) to act on their behalf for the approval process of the proposed establishment of recreational houseboats as expansion of Namushasha River Lodge scope of Activities.

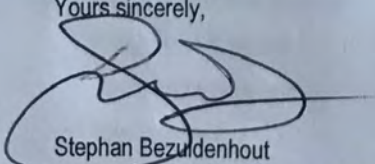
Environmental Compliance Consultancy [ECC] has compiled this request for an amendment report and impact assessment in accordance Section 39 of the Environmental Management Act, 2007 on behalf of Nature Investment Pty) Ltd).

The purpose of this request for amendment is for the establishment of recreational houseboats through the Namushasha Lodge Environmental Clearance Certificate dated 01/07/17. The process covered the following steps, which are reported as follows:

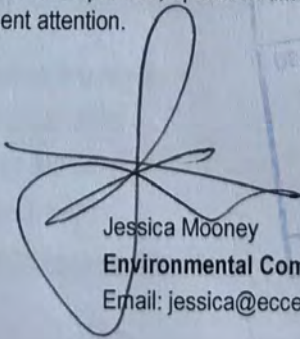
- **COMPLETED FORM 2 (ATTACHED)** – Environmental Management Act 2007, section 39 Application for Amendment of Conditions of Environmental Clearance Certificate
- **REQUEST FOR AMENDMENT REPORT (ATTACHED)** – detailing an environmental impact assessment of the proposed developments.
- **PROJECT SPECIFIC EMP – NAMUSHASHA HOUSEBOATS EMP ADDENDUM 1 (ATTACHED)** – Houseboats EMP: A project specific EMP has been developed for the construction and operations of the proposed recreational houseboats. This is an addendum to the existing approved EMP.

To maintain the financial viability of the proposed developments, operation time is of the essence, and the proponent would appreciate if you afford this assessment your urgent attention.

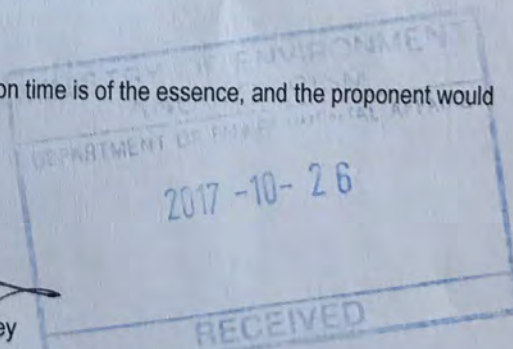
Yours sincerely,



Stephan Bezuidenhout
Environmental Compliance Consultancy
Email: stephan@eccenvironmental.com



Jessica Mooney
Environmental Compliance Consultancy
Email: jessica@eccenvironmental.com



ECC REFERENCE: ECC-62-109-LET-09-A

10th January 2018

Ministry of Environment and Tourism
Department of Environmental Affairs
Private Bag 13306
Windhoek
Namibia

RECEIVED BY OFFICIAL STAMP

Received By Name: Ester

Date: 10 Jan 2018

Signature: 

FOR ATTENTION: ENVIRONMENTAL COMMISSIONER (MR. TEOFILUS NGHITILA)

Dear Mr Teofilus Nghitila,

**RE: PROGRESS REQUEST UPDATE - ECC APPLICATION NAMUSHASHA RIVER LODGE
ENVIRONMENTAL CLEARANCE CERTIFICATE- ESTABLISHMENT OF RECREATIONAL HOUSEBOATS
ALONG KWANDO RIVER.**

Environmental Compliance Consultancy [ECC] has been engaged by Nature Investment Pty (Ltd) to act on their behalf for the approval process of the proposed establishment of recreational houseboats as expansion of Namushasha River Lodge scope of Activities.

Environmental Compliance Consultancy [ECC] refers to our letter reference ECC-62-109-LET-07-A and the attached application reference ECC-62-109-FOR-06-A dated 26th October 2017 (hereto attached) for the application on behalf of Nature Investments Pty Ltd (Gondwana) for environmental clearance for the use of houseboats at the Gondwana Namushasha River Lodge.

On behalf of our client we kindly request an update on the application submitted, suitability of application and expected MET feedback date so our client can plan accordingly.

Your feedback, as always, is appreciated.

Yours sincerely,



Stephan Bezuidenhout

Environmental Compliance Consultancy

Email: stephan@eccenvironmental.com



Jessica Mooney

Environmental Compliance Consultancy

Email: jessica@eccenvironmental.com

APPENDIX 2 – Correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (assessment comments)

Subject: Re: Request to amend Namushasha River Lodge Environmental Clearance Certificate - Establishment of Recreational Houseboats along the Kwando River

Date: Wednesday, 24 January 2018 at 8:55:15 AM Eastern European Standard Time

From: Hiskia Mbura

To: Stephan Bezuidenhout

Dear Stephan,

Compliments for 2018,

The review of the scoping report submitted for obtaining and amendment ECC for the above project has reference:

As indicated by verbal communication during one of your visit to the commissioner's office, an amendment shall not be grant instead the application is considered for a separate clearance for the Houseboats and Related activities.

Therefore, in fulfilment of the requirements for issuance of the clearance we advise that the section on project description be revised to provide detailed information on the activities associated to the proposed Houseboats development i.e.:

1. Project Description, details on the envisaged Houseboats related tourism activities is not adequately provided e.g.
 1. How many rooms will each boat have and what the occupancy / carrying capacity of each boat shall be,
 2. Are these static (on which exact locations) or mobile boats (which cruising routes will be used) and what are the specific practise associated ,
 3. Distribution of additional infrastructure and the respective water and power requirements and sources, and
 4. Respective uses / activities of each boat such as tours, lodging / sleeping and dining etc...
2. Risk assessment, the report presents four options considered and that "option 1" is the preferred option - however, it does not take into account the potential cumulative impacts of the existing activities of "Option 2".
 1. Most importantly, the risk assessment is biased towards the generation of grey water and less on overall impacts i.e. impacts on river ecologically and associated activities such as alteration e-flow pattern, fish spawning and migratory activities etc.
 2. In terms of mobile houseboats, how the activity will impact on any wildlife migration corridors has to be considered.
 3. Consideration for alternative should include not only the an assessment for the location (sites) alone but alternative technology (water supply and handling of grey water (transfer from the onboard system onto the inland facility), energy (including fuel onboard the boat, back-up power source)and potential use of detergents and paints (vanish), and routes
3. Assessment of Impacts, the approach or choice adopted in presenting this section is restrictive as it does not clearly specify the potential impacts. Also lacking is the mitigation in case of accidents, supposing the houseboats are mobile.
4. With respect to I &APs, the Ministry of Agriculture, Water and Forestry becomes the competent authority as the activity takes place within a watercourse.

Kind Regards

Mr. Hiskia Mbura | Senior Conservation Scientist

The information contained in this e-mail is confidential and may be subject to legal privilege and/or the subject of copyright. If you are not the intended recipient, you must not use, copy, distribute or disclose the e-mail or any part of its contents or take any action in reliance on it. If you have received this e-mail in error, please e-mail the sender by replying to this message. The Government of the Republic of Namibia shall not be held liable for any damages so caused to the unintended recipient and any unauthorized distribution by the unintended recipient. Any views expressed in this message are those of the individual sender, except where the sender expressly, and with authority, states them to be the views of Government of the Republic of Namibia. Although this email has been checked for viruses and other defects, no responsibility can be accepted for any loss or damage arising from its receipt or use.

APPENDIX 3 – Namushasha River Lodge Houseboat Environmental Management Plan



ENVIRONMENTAL MANAGEMENT PLAN

Gondwana Collection Namibia Pty (Ltd)
Namushasha River Lodge – Houseboats

February 2018

Prepared For:



ECC DOCUMENT CONTROL: ECC-62-109-REP-04-C

TITLE AND APPROVAL PAGE

Project Name: Namushasha River Lodge - Houseboats
Environmental Management Plan

Client Name: Gondwana Collection Namibia Pty (Ltd)

Ministry Reference: Environmental Clearance Certificate - 07.07.2017

Status of Report: **MET comment addressed**

Date of issue: 7th February 2018

Review Period 2nd – 6th February

Environmental Compliance Consultancy Contact Details:

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

Stephan Bezuidenhout

Environmental Consultant & Practitioner
Tel: +264 81 262 7872
Fax: +27 (86) 229 4009
Email: stephan@eccenvironmental.com
www.eccenvironmental.com

Jessica Mooney

Environmental & Safety Consultant
Tel: +264 81 653 1214
Fax: +27 (86) 229 4009
Email: jessica@eccenvironmental.com
www.eccenvironmental.com

Confidentiality

Environmental Compliance Consultancy Notice: This document is confidential. If you are not the intended recipient, you must not disclose or use the information contained in it. If you have received this document in error, please notify us immediately by return email and delete the document and any attachments. Any personal views or opinions expressed by the writer may not necessarily reflect the views or opinions of Environmental Compliance Consultancy.

Contents

1.	INTRODUCTION	5
1.1.	BACKGROUND TO THE PROPOSED PROJECT	5
1.2.	ENVIRONMENTAL REQUIREMENTS	6
1.2.1.	CORRESPONDENCE WITH THE MINISTRY OF ENVIRONMENT AND TOURISM	6
1.2.2.	ENVIRONMENTAL CLEARANCE CERTIFICATE	6
1.3.	PURPOSE AND SCOPE OF THIS REPORT	6
1.4.	EMP OBJECTIVES	6
1.5.	IMPLEMENTATION AND MANAGEMENT OF THIS EMP	7
1.6.	LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THIS EMP	7
1.7.	ENVIRONMENTAL CONSULTANCY	8
1.8.	EMP STRUCTURE.....	8
2.	PROJECT MANAGEMENT AND PERSONNEL.....	9
2.1.	GCN ENVIRONMENTAL MANAGEMENT TEAM.....	9
2.2.	ROLES AND RESPONSIBILITIES	10
2.3.	CONTRACTORS	11
2.4.	EMPLOYMENT	12
2.4.1.	EMPLOYMENT AND SKILLS DEVELOPMENT PLAN	12
3.	COMMUNICATIONS AND TRAINING	13
3.1.	INTRODUCTION.....	13
3.2.	MASHI CONSERVANCY.....	13
3.3.	ENVIRONMENTAL AWARENESS TRAINING	13
4.	REPORTING, COMPLIANCE AND ENFORCEMENT	14
4.1.	ENVIRONMENTAL PERFORMANCE MANAGEMENT	14
4.1.1.	SUMMARY OF ENVIRONMENTAL RISKS AND MITIGATION MEASURES	14
4.1.2.	MONTHLY COMPLIANCE MONITORING.....	14
4.1.3.	INSPECTION OF PLANT AND EQUIPMENT	14
4.2.	REPORTING	14
4.3.	NON-COMPLIANCE	14
4.3.1.	NON-COMPLIANCE EVENT.....	14
4.3.2.	DISCIPLINARY ACTION	15
4.4.	CONTROL OF RECORDS	15
4.5.	ENVIRONMENTAL PERMITS.....	15
4.5.1.	DISCHARGE PERMIT	15
5.	ENVIRONMENTAL MANAGEMENT.....	16
5.1.	OBJECTIVES AND TARGETS	16
5.2.	BOATING SAFETY INFORMATION	16
5.3.	POLLUTION CONTROL.....	16
5.3.1.	HANDLING OF FUEL, OIL AND CHEMICALS	16
5.3.2.	SEWERAGE AND GREYWATER	17
5.4.	GENERAL WASTE	17
5.5.	HOUSEBOAT RENOVATIONS AND MAINTENANCE.....	17
5.5.1.	DECOMMISSIONING PHASE	18
5.6.	ENVIRONMENTAL MONITORING	18
6.	REGISTER OF ENVIRONMENTAL RISKS AND ISSUES.....	19
6.1.	INTRODUCTION.....	19
7.	IMPLEMENTATION OF THIS EMP	25

8. RECOMMENDATIONS	26
--------------------------	----

TABLES

Table 1 – Key Roles and Responsibilities	10
Table 2 – Environmental Risks and Issues, Mitigation and Monitoring Measures	20

FIGURES

Figure 1 – GCN Environmental Management Structure	9
---	---

DEFINITIONS AND ABBREVIATIONS

DEA	Directorate of Environmental Affairs
ECC	Environmental Compliance Consultancy
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
GCN	Gondwana Collection Namibia
I&APS	Interested and affected parties
MAWF	Ministry of Agriculture Water and Forestry
MET	Ministry of Environment and Tourism

1. INTRODUCTION

1.1. BACKGROUND TO THE PROPOSED PROJECT

Namushasha River Lodge is owned and operated by Gondwana Collection Namibia Pty (ltd), which is part of the Gondwana Collection Namibia (GCN). The lodge is located on the eastern bank of the Kwando River, directly opposite the Bwabwata National Park in the Zambezi Region of Namibia. A unique opportunity has been identified in integrating four houseboats into the Namushasha River Lodge. The houseboats would offer exclusive accommodation for tourists on board a boat that would be sited on the Kwando River.

The proposed project is comprised of four houseboats. The houseboats will be an extension of recreational activities offered at Namushasha River lodge and other Lodges along the Kwando River. Each of the four houseboats will consist of the following:

- Dimensions: 4.5 m (width) x 12m (length);
- Material: Aluminum, stainless steel, wood, reeds;
- Energy: Solar powered with a heavy-duty battery in each unit and back-up generator (petrol/diesel);
- Energy: Stove and hot water operated with LP gas;
- Waste management: Fusion Wastewater Treatment Plant, domestic waste bins (separated); and
- Facilities and amenities: Outdoor decks, lounge, kitchen, dining area, sleeping area and bathroom.

Each boat will be able to accommodate 2 guests.

The boats will be delivered to the lodge pre-made, and it is anticipated some assembly, furnishings and other minor activities will be undertaken once launched. Construction activities will not be undertaken. The houseboats will be launched from the existing boat launching area and will be located on sites illustrated in Figure 1.



Figure 1 - Location of Houseboats

1.2. ENVIRONMENTAL REQUIREMENTS

1.2.1. CORRESPONDENCE WITH THE MINISTRY OF ENVIRONMENT AND TOURISM

In October 2017, Environmental Compliance Consultancy (ECC) on behalf of GCN submitted an application for an amendment to the existing Environmental Clearance Certificate held by Namushasha River Lodge, in line with correspondence from the Ministry of Environment and Tourism: Department of Environmental Affairs (MET:DEA).

A response from the MET:DEA was received in January 2018 stating that a separate Environmental Clearance Certificate for the house boats was required. Therefore the original Environmental Scoping Report and an Environmental Management Plan (EMP) have subsequently been revised addressing the MET:DEA comments, and both will be issued as part of the Environmental Clearance Certificate for the house boats. These reports have been produced, in accordance with the requirements of the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011) gazetted under the Environmental Management Act, (EMA), 2007 (Act No. 7 of 2007) (referred to herein as the EIA Regulations).

1.2.2. ENVIRONMENTAL CLEARANCE CERTIFICATE

The Environmental Management Act, 2007 stipulates that an Environmental Clearance Certificate is required to undertake Listed Activities under the Act and associated Regulations. Listed activities triggered by the proposed project in accordance with the Environmental Management Act, 2007 and supporting regulations are as follows:

TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

1.3. PURPOSE AND SCOPE OF THIS REPORT

The purpose of this EMP is to provide a management framework for the planning and implementation of the operations of the houseboats, and provide standards and operating arrangements so that potential environmental and social impacts of the houseboats are mitigated, prevented and minimised as far as reasonable practicable, and that statutory requirements and other legal obligations are fulfilled. This EMP also presents protocols and procedures, and roles and responsibilities to ensure the management arrangements are appropriately and effectively implemented.

This EMP forms an appendix to the Environmental Scoping Report; therefore, the Environmental Scoping Report should be referred to for further information on the project, assessment methodology, applicable legislation and assessment findings.

The Namushasha River Lodge has an Environmental Clearance Certificate and an EMP. This houseboats EMP will become part of the overarching EMP and therefore should be read in conjunction with the overarching EMP due to the potential overlap and interfaces of activities. This houseboat EMP has been written in line with the overarching EMP to ensure a consistent approach is adopted and applied across the lodge. Additional information has been included as they are considered as best practice and therefore it is recommended that when the lodge EMP is up for review (anticipated to be December 2019), it should be revised to consider these additions.

This EMP is a live document and shall be reviewed at predetermined intervals (in line with the overarching EMP), and/or updated when the scope of works alters, or when further data / information can be added. All personnel working on the project will be legally required to comply with the standards set out in this EMPs.

1.4. EMP OBJECTIVES

In line with the existing Namushasha River Lodge EMP, the objectives of this EMP are to:

- a) Enhance the socio-economic and pro- biodiversity impacts of the operation.
- b) Identify, minimise and mitigate negative environmental impacts of the operation.

- c) Meet the requirements of relevant legislation
- d) Initiate a process which ensures that successive managers have a consistent environmental approach to operating the lodge into the future in conformity with Executive Management and Board guidelines and systems.
- e) Enable management to monitor and mitigate environmental impacts.
- f) Create awareness amongst all staff on the importance of maintaining sound environmental practices in all spheres of operation.
- g) Implement the environmental policies and philosophy of the GCN.
- h) In close co-operation with the Gondwana Environmental Committee, promote and sustainably manage biodiversity conservation in the region, which in turn will increase the opportunities for ecotourism activities in the local area and create employment opportunities (living museum, community development and engagement, botanical walks, bird watching cruises, fishing trips & Sundowner cruises.).

The strategies employed to achieve the objectives include:

- a) Ensure that the EMP becomes an integral part of the daily operating procedures for the houseboats via the Annual Work Plan, which includes environmental monitoring.
- b) Create environmental awareness among all staff and build environmental responsibility and authority into job descriptions and operations manuals.
- c) Expose guests to this awareness program through information materials and encourage their active participation where appropriate.
- d) Subject the lodge and its activities to independent, external assessments from time to time via eco awards Namibia.

1.5. IMPLEMENTATION AND MANAGEMENT OF THIS EMP

Gondwana Collection Namibia Pty (Ltd.) (the proponent) will hold the Environmental Clearance Certificate for the houseboats and shall be responsible for the implementation and management of this EMP.

Prior to the operations commencing, this EMP shall be reviewed by the GCN Environmental Committee and Houseboat Manager, and shall be amended as required and approved ready for implementation. The implementation and management of this EMP and thus the monitoring of compliance shall be undertaken through daily duties and activities and monthly inspections (see Section 4).

1.6. LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THIS EMP

This EMP does not include measures for compliance with statutory occupational health and safety requirements. This will be provided in the safety management plan to be developed by the proponent.

Where there is any conflict between the provisions of this EMP 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 and statutory requirements are to take precedence.

The information contained in this EMP has been based on the project description as provided in the Environmental Scoping Report. Where the design or operations alter, this EMP may require updating and potential further assessment undertaken.

The operations of the houseboats will overlap with the current activities at the Namushasha River Lodge. Where existing activities will be utilised by the houseboats, the lodge EMPs will cover these activities, for example safari guides, fishing, waste management arrangements and management of the joint venture between the lodge and local conservancy.

1.7. ENVIRONMENTAL CONSULTANCY

Environmental Compliance Consultancy (ECC), a Namibian consultancy registration number 2013/11401, has prepared this BA on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across Southern Africa in the public and private sector. ECC is independent to the proponent and has no vested or financial interest in the houseboats.

1.8. EMP STRUCTURE

The following structure has been adopted for this Report:

- Chapter 1 – Introduction
- Chapter 2 – Project Management and Personnel
- Chapter 3 – Communications and Training
- Chapter 4 – Compliance and Enforcement
- Chapter 5 – Environmental Management
- Chapter 6 – Register of Environmental Risks and Issues
- Annex A – Template for Monthly Compliance Report

2. PROJECT MANAGEMENT AND PERSONNEL

2.1. GCN ENVIRONMENTAL MANAGEMENT TEAM

An Environmental Officer was appointed to oversee environmental compliance of each lodge in the GCN, and an Environmental Committee was elected to steer the Organisation. The GCN Environmental Management team is suitably qualified and well versed in the relevant national and international environmental policies, legislation and procedures.

Since the appointment of an Environmental Officer, GCN has obtained Environmental Clearance Certificates for each lodge within their collection and their operations, as well as well formulated site specific EMPs. The general GCN environmental management structure is illustrated in the diagram below (Figure 1).

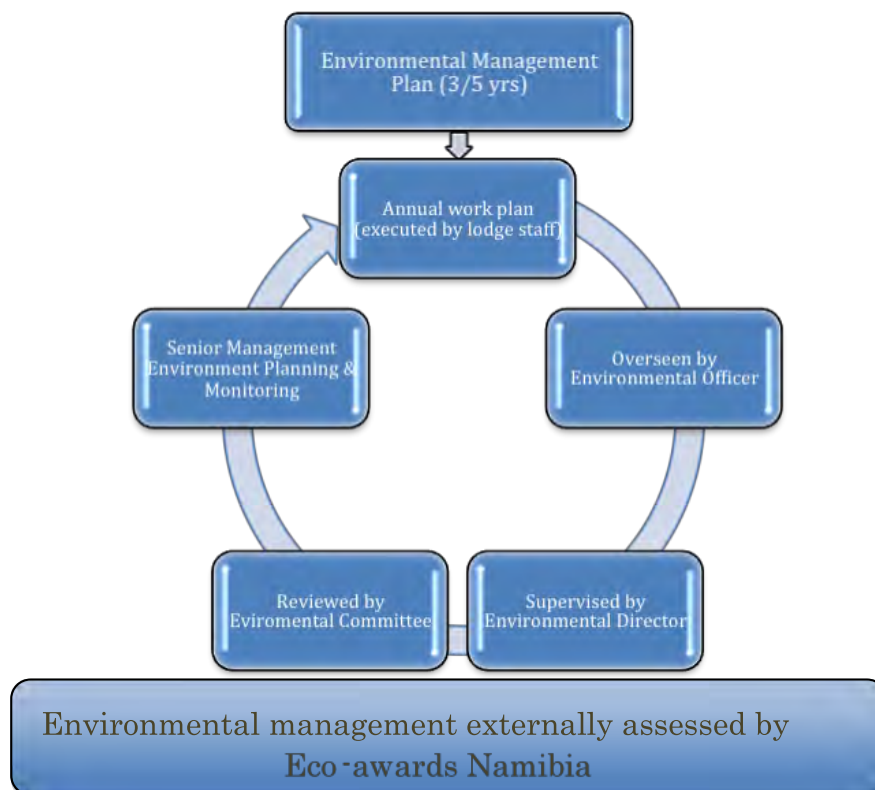


Figure 2 – GCN Environmental Management Structure

GCN respects environmental conservation and sustainability in its operations on all its lodges. Such that since the granting of the Environmental Clearance Certificate for Namushasha River Lodge, the Gondwana Environmental Committee has been working tirelessly to ensure full cooperation to all environmental legislative requirements. Seven of its lodges have received top honours in the Eco Awards -the environmental seal of quality. Namushasha River Lodge was last assessed by Eco Awards in 2014 and received Five Eco-Flowers (highest rating). The Lodge is due for a re-assessment by Eco-Awards this year and the houseboats shall be included in this review, therefore shall meet the criteria set out by Eco-Awards Namibia.

2.2. ROLES AND RESPONSIBILITIES

The proponent shall be responsible for:

- Ensuring all members of the Project Team, including contractors and consultants comply with the procedures set out in this EMP;
- Ensuring that all persons are provided with sufficient training, supervision and instruction to fulfil this requirement; and
- Ensuring that any persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.

Contractors shall be responsible for ensuring and demonstrating that all personnel employed by them are compliant with this EMP, and meet the responsibilities listed above.

The key personnel and environmental responsibilities of each role through the project life are presented in Table 1.

Table 1 – Key Roles and Responsibilities

ROLE	RESPONSIBILITY & DUTIES
Gondwana Collection Namibia Environmental Committee	– Responsible for steering the Organisation and environmental commitments, and ensure the GCN operates in accordance with national and international environmental policies, legislation and procedures.
Environmental Officer, Gondwana Collection Namibia	– Overall responsibility for the implementation and management of this EMP. – Ensure environmental policy is communicated to all personnel throughout the proposed project. – Responsible for providing the required resources (including financial and technical) to complete the required tasks. – Responsible for environmental monitoring. – Being the principal contact point in relation to environmental performance of the operations of the houseboats; – Providing guidance to personnel in dealing with environmental matters, including legal and statutory requirements affecting the works; – Being responsible for all environmental management plans and environmental monitoring, and production of associated reports/records; – Being responsible for providing a response to environment-related complaints received from the public or other stakeholders; – Ensuring that best environmental practice is undertaken throughout the duration of the project; – Undertaking regular checks of the operations of the houseboats and associated activities; – Provisioning of environmental awareness/management training and inductions; – Responsible for the management, maintenance and revisions of this EMP and subsequent environmental plans (e.g. Waste Management Plan); – Timely distribution of any relevant environmental documentation, including revisions to this EMP, to all construction managers and contractors; – External monitoring of EMP process via Eco-awards and the maintenance of these standards;

ROLE	RESPONSIBILITY & DUTIES
	– Maintain communications between the lodge and houseboats, and the conservancy, and implement contract monitoring tool at quarterly joint venture meetings; and – Provide support where appropriate, for conservancy income generating enterprises (e.g. Namushasha Heritage Centre).
Operations Manager (Houseboats Manager)	Role within Namushasha River Lodge. Responsible for overseeing the day to day activities, routine and non-routine maintenance, and compliance with this EMP. works during operations, as well as the decommissioning of the development. – Ensuring all personnel are aware of the commitments made in this EMP and any other relevant regulatory requirements and that the operations will be undertaken in compliance with these; – Ensuring adequate resources are made available for implementation of this EMP; – Reporting environmental performance to the Environmental Officer; – Maintain the community issues and concern register; – Keep records of complaints and delegate and report to management as required. – Ensuring all employees and contractors participate in an Induction process prior to commencing work on the houseboats or associated activities; – Maintain up to date register of employees who have completed the Site Induction; – Report any non-compliance or accidents to the Regulatory Authority; – External monitoring of EMP process via Eco-awards and the maintenance of these standards; – Support with communications between the lodge and houseboats, and the conservancy, and implement contract monitoring tool at quarterly joint venture meetings; and – Provide support with wildlife monitoring.
Houseboat Personnel	Responsible for being compliant with this EMP throughout operations in addition to: – Ensuring they have undertaken a site induction and are conversant with the requirements of this EMP; – Ensuring appropriate briefings for certain activities have been provided and fully understood; – Adherence to this EMP at all times; – Reporting of any operations and conditions that deviate from this EMP or any non-compliant issues or accidents to the Houseboat Manager; and – Provide support with wildlife monitoring.

2.3. CONTRACTORS

Any contractors hired during maintenance activities would need to be compliant with this EMP, and would be responsible for the following:

- Undertaking activities in accordance with this EMP as well as relevant policies, procedures, management plans, statutory requirements, and contract requirements;
- Implementing appropriate environmental and safety management measures;

- Reporting of environmental issues, including actual or potential environmental incidents and hazards, to the Operations Manager and GCN Environmental Officer; and
- Ensuring appropriate corrective or remedial action is taken to address all environmental hazards and incidents reported by employees and subcontractors.

2.4. EMPLOYMENT

The proponent and all contractors shall comply with the requirements of the Republic of Namibia Regulations for Labour, Health and Safety, and any amendments to these regulations. During operations, the following shall be complied with:

- In liaison with local government and community authorities the proponent shall ensure that local people have access to information about job opportunities and are considered first for construction contract employment positions;
- The number of job opportunities shall be made known together with the associated skills and qualifications, and the maximum length of time the job is likely to last for shall be clearly indicated;
- Foreign workers with no proof of permanent legal residence shall not be hired; and
- Every effort shall be made to recruit from the pool of unemployed workers living in the local communities.

Additional employment principals shall be developed and included to this EMP to ensure a robust employment policy is implemented across the proposed project.

2.4.1. EMPLOYMENT AND SKILLS DEVELOPMENT PLAN

The operations of the houseboats will create several additional jobs at the lodge. The Namushasha River Lodge has signed an Employment and Skills Development Plan with the Mashi Conservancy. The main objectives of this Employment and Skills Development Plan are to;

- clarify employment and recruitment procedures of local community members at the Lodge;
- clarify and adhere to Employment targets;
- formulate plans for the development of skills of local employees; and
- develop a framework for regulating Social Responsibility efforts, assistance programmes, donation and community welfare efforts by the Namushasha River Lodge.

3. COMMUNICATIONS AND TRAINING

3.1. INTRODUCTION

The operations of the houseboats will involve various activities which will take place in a sensitive environment. It is therefore important that personnel are appropriately informed of the risks and potential impacts, and appropriately trained. It is also important that regular communications are maintained with stakeholders and that guests are also made aware of their potential impacts and how to minimise and avoid them.

3.2. MASHI CONSERVANCY

The lodge and the sites for the houseboats are sited within the Mashi Conservancy. The GCN and the Mashi Conservancy have a joint venture operation, and as part of this joint venture. The agreement between GCN and the conservancy is monitored for compliance by both parties on a joint management committee (JMC) which meet four times per year (Gondwana Environmental Committee, 2016).

A compliance matrix has been developed and is used to ensure compliance by both parties. The JMC also handles a range of issues to ensure that all opportunities and threats to the partnership are addressed timeously and to encourage a strong partnership.

Regular communications between the lodge and houseboats, GCN Environmental Officer and the conservancy shall be undertaken, and any communications, including complaints from the conservancy shall be responded to in writing by the Environmental Officer. This is already covered by the lodge EMP, and therefore further measures to manage this are not discussed further.

3.3. ENVIRONMENTAL AWARENESS TRAINING

All personnel involved in the operations of the houseboats shall be inducted with specific environment and social awareness training, and health and safety issues. The environment and social awareness training shall ensure that personnel are familiar with the principles of this EMP, the environment and social aspects and impacts associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures.

The Houseboat Manager shall ensure a register of completed training is maintained and issued to the Environmental Officer monthly or when there are additions.

The Site Induction should include, but not limited to the following:

- A general site-specific induction that outlines:
 - What is meant by “environment” and “social”;
 - Why the environment needs to be protected and conserved;
 - How construction activities can impact on the environment;
 - What can be done to mitigate against such impacts;
- The inductee’s role and responsibilities with respect to implementing the ESMP;
- The environmental impacts and social responsibilities associated with the inductee’s working activities;
- The site environmental rules;
- Details of how to deal with, and who to contact if environmental problems should they occur;
- Basic spill response and briefing on use of all location of spill kits;
- The potential consequences of non-compliance with this ESMP and relevant statutory requirements; and
- The role of responsible people for the proposed project.

4. REPORTING, COMPLIANCE AND ENFORCEMENT

4.1. ENVIRONMENTAL PERFORMANCE MANAGEMENT

4.1.1. SUMMARY OF ENVIRONMENTAL RISKS AND MITIGATION MEASURES

Chapter 6 provides a Register of Environmental Risks and Issues, which identifies mitigation and monitoring measures, as well as roles responsible. This register will be subject to regular review by the Houseboat Manager and the Environmental Officer.

This register will be used to undertake monthly inspections by the Houseboat Manager to ensure the project is compliant with this EMP.

4.1.2. MONTHLY COMPLIANCE MONITORING

Monthly inspections shall be undertaken by the Houseboat Manager to check that the standards and procedures set out in this EMP are being complied with and pollution control measures are in place and working correctly. Monthly Compliance Reports shall be produced, which shall be completed by the Houseboat Manager and shall be submitted to the Environmental Officer. The report shall contain a brief description of any areas of non-conformance, the reason for the non-conformance, the responsible party, the result (consequence), the corrective action taken and any necessary follow up measures required.

4.1.3. INSPECTION OF PLANT AND EQUIPMENT

All plant and equipment performing an environmental function shall be well maintained and serviced in line with their specification. A register of all plant and equipment under the responsibility of the Houseboat Manager. This register shall be reviewed monthly to ensure all checks and services for plant and equipment have been undertaken. The register shall include, but not limited to the following:

- Piece of plant and equipment;
- Make and Model;
- Frequency of required service and scheduled dates;
- Dates of last inspection, maintenance and/or test;
- Notes of any issues or concerns; and
- Responsible person.

4.2. REPORTING

There shall be a requirement to ensure that any incident or non-compliance, including any environmental issue, failure of plant and equipment that perform an environmental function or accident, is reported to the Houseboat Manager and the Environmental Officer.

4.3. NON-COMPLIANCE

4.3.1. NON-COMPLIANCE EVENT

Where it has been identified that works are not compliant with this EMP, the Houseboat Manager shall employ corrective actions so that the works return to being compliant as soon as possible. In instances where the requirements of this EMP are not upheld, a Non-Conformance and Corrective Action Notice shall be produced. The Notice shall be generated during the inspections and the Houseboat Manager shall be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming. The Houseboat Manager shall also report to the Environmental Officer.

A non-compliance event / situation, for example, is considered if:

- There is evidence of contravention of this EMP and associated indicators or objectives;
- The Houseboat Manager has failed to comply with corrective or other instructions issued by the Environmental Manager or qualified authority; or
- The Houseboat Manager fails to respond to complaints from the public.

Activities shall be ceased in the event of a non-compliance, until corrective action(s) has been completed.

4.3.2. DISCIPLINARY ACTION

This EMP is a legally binding document and non-compliance with it shall result in disciplinary action being taken against the perpetrator/s. Such action may take the form of (but is not limited to):

- Fines / penalties;
- Legal action;
- Monetary penalties imposed by the proponent on the contractor;
- Withdrawal of license/s; and
- Suspension of work.

The disciplinary action shall be determined according to the nature and extend of the transgression / non-compliance, and penalties are to be weighed against the severity of the incident.

4.4. CONTROL OF RECORDS

A range of environmental records, for example waste management records are required and specified throughout this ESMP.

Environmental records shall be maintained, either in hard copy or electronic format and shall be readily identifiable, retrievable and protected against damage, deterioration or loss.

4.5. ENVIRONMENTAL PERMITS

4.5.1. DISCHARGE PERMIT

A discharge permit will be applied for at the Department of Agriculture Water and Forestry for the operations of the waste water treatment plan onboard each houseboat and the discharge of treated effluent to the environment. As per the conditions of the permit, regular water samples will be taken from those boats to ensure the treated water quality comply with the prescribes general standards. Where water quality does not meet prescribed standards, the effluent will be contained on the houseboats and pumped into the existing on-land Namushasha waste water treatment plant for further treatment.

5. ENVIRONMENTAL MANAGEMENT

5.1. OBJECTIVES AND TARGETS

Environmental objectives for the operations of the houseboats are as follows:

- Zero pollution incidents;
- Minimise waste sent to landfill or being burnt;
- Protect local flora and fauna and minimise disruption;
- Minimise light and noise pollution; and
- Use natural resources effectively and efficiently.

Procedures for monitoring processes against the project environmental objectives will be agreed with the Environmental Officer and Houseboat Manager.

5.2. BOATING SAFETY INFORMATION

Houseboat safety management plan will be developed and implemented in accordance with the specifications of the houseboat and passenger water vessels in Namibia. A boating map of the proposed portion of the river will be navigable areas and points of interest along the river. The map will also contain useful boating information as well as an index and GPS reference.

5.3. POLLUTION CONTROL

5.3.1. HANDLING OF FUEL, OIL AND CHEMICALS

The Houseboat Manager shall take all reasonable precautions to prevent fuel, oil and chemical whilst undertaking works on site. To this end, the Site Manager shall ensure that:

- All necessary approvals are in place prior to bringing fuel, oil or chemicals to the houseboats;
- All fuel, oil and chemical deliveries (if any) shall be supervised by a responsible person, who shall be trained to deal with any spills;
- Regular checks are performed to verify that no leaking or defective equipment; and
- Equipment is maintained regularly to ensure that no fuel, oil or hydraulic leaks occur.

The Houseboat Manager shall ensure that there is sufficient absorbent material and spill kits available on site to manage accidental spills. The location of and instructions on how to use this equipment shall be included in the Induction. Nominated personnel will be appropriately trained to use spill kits.

Any accidental spillages of fuels and oils, or other hazardous substances, shall be cleaned up immediately and be reported Houseboat Manager and Environmental Officer. The following responses shall be undertaken:

- Minor spill: Only diesel and oil, with no human injury, contamination to water bodies or other environmental receptors. Contain and clean up the spill using available spill kit. The Houseboat Manager shall inform the PM and Environmental Officer, supplying the following information:
 - Date, time, and location;
 - Substance spilled and quantity; and
 - Actions taken, and any future remediation required.

- Major Spill: Resulting in human injury or/and environmental contamination and water body contamination. Personnel shall contain the spill if possible and report the spill to the Houseboat Manager, who shall then alert the appropriate emergency services (see **Error! Reference source not found.**), and the Environment Officer. In addition to the above information for a minor spill, the Houseboat Manager shall also be informed of any immediate dangers, e.g. fire, explosion, release of chemical fumes.

5.3.2. SEWERAGE AND GREYWATER

The houseboats will use a completely closed solid waste management system to ensure that no solid waste or untreated sewage will be discharged into the river. The closed system will treat and disinfect water prior to release to the river – see Figure 6. The system is designed to service up to 3,000 litre of sewerage per day, which is equivalent to 20 persons (+/- 150lt average daily demand per person).

A discharge permit will be applied for at the Department of Agriculture Water and Forestry for the operations of this system and discharge to the environment. As per the conditions of the permit, regular water samples will be taken from those boats to ensure the treated water quality comply with the prescribed general standards. Where water quality does not meet prescribed standards, the effluent will be contained on the houseboats and pumped into the existing on-land Namushasha waste water treatment plant for further treatment.

5.4. GENERAL WASTE

The houseboats will be equipped with designated rubbish bins to ensure that all domestic waste is collected and disposed of sustainably through the existing waste management arrangements on the lodge. Waste separation will be practised, to ensure that all recyclable material is collected and sent for recycling.

Waste shall be collected each day from the houseboats and transported to the lodge, thereby avoiding potential odours and waste collecting and escaping into the environment.

It is recommended that the lodge and houseboats produce a Waste Management Plan. The EMA (2007), Section 3, paragraph (i) states that waste must be reduced, re-used and recycled where possible, therefore in accordance with the Act, waste generated as a result of operating the houseboats and lodge shall be managed and dealt with in accordance with a Waste Management Plan. This Plan shall be produced prior to operations of the houseboats commencing and include the following information:

- Describe each waste type expected to be produced;
- Estimate the quantity of each waste type;
- Identify the waste management action proposed for each waste stream, including re-using, recycling, recovery and disposal;
- Designated areas to collect and separate waste; and
- Identify waste carrier and waste disposal company.

The Waste Management Plan shall be updated on a regular basis to ensure all waste and disposal route are identified. The aim of the Waste Management Plan is to achieve sustainable waste management. Their main purpose is to outline waste streams and identify the best treatment and disposal option for each one, applying the waste management hierarchy and avoiding as much waste as possible ending up at landfill or being burnt. In addition, it will also outline any potential economical and investment requirements for the treatment and / or disposal of waste.

5.5. HOUSEBOAT RENOVATIONS AND MAINTENANCE

The houseboats shall have regular maintenance to minimise loss of containment, avoid faults from occurring and reduce the risk of accidents. Ad hoc maintenance may be required for major modifications, repairs or renovations. Any structural alterations or sewerage system alterations will obtain approval from the MAWF prior to works commencing.

The Lodge Annual Work shall include maintenance requirements of the houseboats.

5.5.1. DECOMMISSIONING PHASE

It is highly unlikely event that the houseboats will be decommissioned. Gondwana collection will ensure that there is timely maintenance of the boats to continuously extend the life span of the houseboats.

However, should decommissioning be the favourable option, it would potentially take between 1 to 2 months to decommission the houseboats. A decommissioning management plan will have to be approved by MET: DEA prior to decommissioning to allow for planning and prevention of environmental pollution. It is imperative to also note that there will always be rehabilitation of the disturbed areas during the operation of the houseboats and as part of decommissioning in an unlikely circumstance.

5.6. ENVIRONMENTAL MONITORING

Monitoring during operations shall be undertaken to ensure the effects on society and the environment are minimised, and to evaluate how effective the environmental management has been, over an extended period of time. The Houseboat Manager will set out monitoring arrangements prior to the operations of the Houseboats. This monitoring regime should become part of the overall environmental monitoring arrangements for the lodge.

6. REGISTER OF ENVIRONMENTAL RISKS AND ISSUES

6.1. INTRODUCTION

An environmental review of the operations of the houseboats has been completed to identify all the commitments and agreements made within the EIA report. From this, a schedule of environmental commitments and risks has been produced, which details deliverables including measures identified for the prevention of pollution or damage to the environment.

Table 2 – Environmental Risks and Issues, Mitigation and Monitoring Measures

REF NO.	ACTIVITY	RISKS AND POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	FREQUENCY	RESPONSIBILITY
1	Refuelling tender boats and houseboat's generator	Spillages of fuel, oil and lubricants.	Activity undertaken by a suitably qualified person Spill kits available Use of dips trays during the transfer	Monitor fuel use	Weekly	Houseboat Manager
2	Operations of mechanical equipment and engines	Spillages of fuel, oil and lubricants.	Undertake regular checks of all plant and equipment Service plant and equipment annually Spill kits available Clear spills immediately	Daily checks Monthly inspections / compliance checks	Daily Monthly	Houseboat Manager Personnel
3	Increased tourists to the area and taking part in activities – use of generators, engines and general noise sources	Increase noise levels	Boat engine and moving components are to be kept in good working order at all times to avoid capsizing and to minimize noise impact Guests are to be provided awareness on interactions and impacts on aquatic ecology No loud music Careful siting of generators Turn off engines when not required No idling	Daily checks Monthly inspections / compliance checks	Daily Monthly	Houseboat Manager Personnel
4	Increased tourists to the area and taking part in activities / houseboats in close proximity to animals	Human-wildlife conflicts – animal injury, disturbance or mortality	Train personnel and guides Provide environmental awareness to guests No-go areas on the river Limit the number of tender boats on the river at any one time Prevent killing of animals	Monthly checks of environment	Monthly	Houseboat Manager GCN Environmental Officer

REF NO.	ACTIVITY	RISKS AND POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	FREQUENCY	RESPONSIBILITY
			No stopping on the river unless approved by the Environmental Officer			
5	Abstraction of water from the river	Disturbance to the natural environment and use of resources	Train personnel and environmental awareness -minimise use of water Inform guests of water usage and consumptions issues / use water wisely Maintenance of plant and equipment – no leaks	Test water annually to ensure it is appropriate for consumption	Annual	Houseboat Manager GCN Environmental Officer
6	Sewerage production and disposal	Reduction in water quality Flora and fauna affected	Sewerage waste treatment plant onboard each boat Sampling Maintenance of plant	Regular checks on the waste treatment facility. Regular water samples will be taken from those boats to ensure the treated water quality comply with the prescribes general standards	Daily Monthly	Houseboat Manager GCN Environmental Officer
7	Production and disposal of greywater (showers and kitchen operations) Use of chemicals	Reduction in water quality Flora and fauna affected	All of the sinks, showers, and toilets on each Houseboat will drain into a specially designed greywater tank. The capacity of this tank will accommodate all waste produced within the houseboat. Water to be treated prior to discharge to the river. Use environmental friendly products Minimise use of chemicals. Regular water quality samples must be taken to ensure the treated waste water comply to the prescribed general standards as set out in the Water	Regular water quality samples	Weekly / monthly	Houseboat Manager GCN Environmental Officer

REF NO.	ACTIVITY	RISKS AND POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	FREQUENCY	RESPONSIBILITY
			Resources Management Act, 2004 (Act No. 24 of 2004). Should the treated waste water not meet the prescribed general standards, the discharge of the treated waste water may not be discharged into the environment.			
8	Increased tourists - Increased waste	Solid waste (litter) escaping into the environment. Greater quantity to be disposed of – landfill = land take, burning = air pollution	Implementation of the Waste Management Plan and application of the waste management hierarchy Suitable collection points for the waste on houseboats Waste collected daily and transported in suitable containers back to the lodge. Any hazardous waste such as waste oil/lubricant cans should be stored in a hazardous waste storage bin and disposed of by an accredited hazardous waste handlers such as Ventclean, Rent A Drum and Kleen Tech.	Monthly compliance checks	Monthly	Lodge Manager Houseboat personnel GCN Environmental Officer
9	Increased tourists – Food introduced into the ecosystem	Change in the local flora and fauna, and habits of aquatic species	Notices to inform guests of the rules Appropriate bins and removal of waste each day	na	na	
10	Houseboat Maintenance or renovations	Oils, fuels, chemicals paints, waste entering the aquatic environment and causing pollution / contamination – reduce	Implementation of the Waste Management Plan Suitable collection points for the waste on houseboats Waste collected daily and transported in suitable containers back to the lodge Spill kits Limit use of chemicals	Monthly compliance checks	Monthly	Houseboat Manager GCN Environmental Officer

REF NO.	ACTIVITY	RISKS AND POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	FREQUENCY	RESPONSIBILITY
		water quality, affect flora and fauna	Training of staff			
11	Lighting from the houseboats	Artificial lighting could affect birds and fish in particular as these species rely upon moonlight to navigate at night time. Amphibians, such as frogs could also be disturbed, and feeding and mating rituals could be affected. Sources	Use of energy efficient light forms Low beam / low LEDs Avoid lighting where unnecessary Avoid lights being grouped together. Lights switched off at night	Monthly compliance checks	Monthly	Houseboat Manager GCN Environmental Officer
12	Maintenance of area in the vicinity of the houseboats	Removal of vegetations	Remove invasive alien species Remove vegetation during the winter months or prescribed times by the Environmental Officer	Monthly checks to visually check the growth of vegetations	Monthly	Houseboat Manager Environmental Officer
13	Increased number of guests and operations	Water Resources: Use of Energy and waste production	Train staff so they are aware of the need to save energy Inform guests and include information on the houseboats Use of energy wisely – solar power (ensure well maintained) and energy saving lightbulbs	Monitor fuel use Monitor energy consumption and water abstraction Monitor waste as part of waste management plan		Houseboat Manager GCN Environmental Officer
14	Location of Houseboats	Geomorphology and ecological impacts	The houseboats shall be moored at the same location which will not move during operations.	Weekly and monthly compliance checks	Weekly and monthly	Houseboat Manager

REF NO.	ACTIVITY	RISKS AND POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	FREQUENCY	RESPONSIBILITY
			These sites have been identified and shall not be deviated from except is sensitive environmental features are located in the area and the mooring spot needs to be moved by a few meters.			

7. IMPLEMENTATION OF THIS EMP

This EMP:

- A. Has been prepared pursuant to a contract with the proponent;
- B. Has been prepared on the basis of information provided to ECC up to January 2018;
- C. Is for the sole use of the proponent, for the sole purpose of an EMP;
- D. Must not be used (1) by any person other than the proponent or (2) for a purpose other than an EMP; and
- E. Must not be copied without the prior written permission of ECC.

ECC has prepared this EMP on the basis of information provided by the proponent and the Environmental Scoping Report.

8. RECOMMENDATIONS

Throughout this report, various recommendations have been made. To summarise, these are:

- Revise the Lodge EMP in line with the Houseboat EMP in December 2019;
- Produce a Waste Management Plan for the operations of the Lodge and Houseboats; and
- Prepare an overarching Monitoring Plan for the lodge and houseboats.

ANNEX A - TEMPLATE FOR MONTHLY COMPLIANCE REPORT

INSPECTION DATE: _____

INSPECTION COMPLETED BY: _____

SUMMARY OF CONSTRUCTION ACTIVITIES OCCURRING:

CONTRACTORS ON SITE:

Ref No.	Item	Requirements	Responsibility	Compliant	Notes / Action Taken / Corrective Action Required
1	– Refuelling tender boats and houseboat's generator	Activity undertaken by a suitably qualified person Spill kits available Use of dips trays during the transfer	Houseboat Manager	Yes ☐ No ☐ N/A ☐	
2	Operations of mechanical equipment and engines	Undertake regular checks of all plant and equipment Service plant and equipment annually Spill kits available Clear spills immediately	Houseboat Manager Personnel	Yes ☐ No ☐ N/A ☐	

Ref No.	Item	Requirements	Responsibility	Compliant	Notes / Action Taken / Corrective Action Required
3	Increased tourists to the area and taking part in activities – use of generators, engines and general noise sources	Boat engine and moving components are to be kept in good working order at all times to avoid capsizing and to minimize noise impact Guests are to be provided awareness on interactions and impacts on aquatic ecology No loud music Careful siting of generators Turn off engines when not required No idling	Houseboat Manager Personnel	Yes ☐ No ☐ N/A ☐	
4	Increased tourists to the area and taking part in activities / houseboats in close proximity to animals	Train personnel and guides Provide environmental awareness to guests No-go areas on the river Limit the number of tender boats on the river at any one time Prevent killing of animals No stopping on the river unless approved by the Environmental Officer	Houseboat Manager GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	
5	Abstraction of water from the river	Train personnel and environmental awareness - minimise use of water Inform guests of water usage and consumptions issues / use water wisely Maintenance of plant and equipment – no leaks	Houseboat Manager GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	

Ref No.	Item	Requirements	Responsibility	Compliant	Notes / Action Taken / Corrective Action Required
6	– Sewerage production and disposal	Sewerage waste treatment plant onboard each boat Sampling Maintenance of plant	Houseboat Manager GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	
7	Production and disposal of greywater (showers and kitchen operations) – Use of chemicals	All of the sinks, showers, and toilets on each Houseboat will drain into a specially designed greywater tank. The capacity of this tank will accommodate all waste produced within the houseboat. Water to be treated prior to discharge to the river. Use environmental friendly products Minimise use of chemicals. Regular water quality samples must be taken to ensure the treated waste water comply to the prescribed general standards as set out in the Water Resources Management Act, 2004 (Act No. 24 of 2004). Should the treated waste water not meet the prescribed general standards, the discharge of the treated waste water may not be discharged into the environment.	Houseboat Manager GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	

Ref No.	Item	Requirements	Responsibility	Compliant	Notes / Action Taken / Corrective Action Required
8	– Increased tourists - Increased waste	Implementation of the Waste Management Plan and application of the waste management hierarchy Suitable collection points for the waste on houseboats Waste collected daily and transported in suitable containers back to the lodge. Any hazardous waste such as waste oil/lubricant cans should be stored in a hazardous waste storage bin and disposed of by an accredited hazardous waste handlers such as Ventclean, Rent A Drum and Kleen Tech.	Lodge Manager Houseboat personnel GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	
9	– Increased tourists – Food introduced into the ecosystem	Notices to inform guests of the rules Appropriate bins and removal of waste each day		Yes ☐ No ☐ N/A ☐	
10	– Houseboat Maintenance or renovations	Implementation of the Waste Management Plan Suitable collection points for the waste on houseboats Waste collected daily and transported in suitable containers back to the lodge Spill kits Limit use of chemicals Training of staff	Houseboat Manager GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	

Ref No.	Item	Requirements	Responsibility	Compliant	Notes / Action Taken / Corrective Action Required
11	– Lighting from the houseboats	Use of energy efficient light forms Low beam / low LEDs Avoid lighting where unnecessary Avoid lights being grouped together. Lights switched off at night	Houseboat Manager GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	
12	– Maintenance of area in the vicinity of the houseboats	Remove invasive alien species Remove vegetation during the winter months or prescribed times by the Environmental Officer	Houseboat Manager Environmental Officer	Yes ☐ No ☐ N/A ☐	
13	– Increased number of guests and operations	Train staff so they are aware of the need to save energy Inform guests and include information on the houseboats Use of energy wisely – solar power (ensure well maintained) and energy saving lightbulbs	Houseboat Manager GCN Environmental Officer	Yes ☐ No ☐ N/A ☐	
14	– Location of Houseboats	The houseboats shall be moored at the same location which will not move during operations. These sites have been identified and shall not be deviated from except is sensitive environmental features are located in the area and the mooring spot needs to be moved by a few meters.	Houseboat Manager	Yes ☐ No ☐ N/A ☐	

INSPECTION DATE: _____

INSPECTION COMPLETED BY: _____

APPROVED BY: _____

SUMMARY OF CONSTRUCTION ACTIVATES OCCURRING:

CONTRACTORS ON SITE:

NON-CONFORMANCE

AREA OF ACTIVITY:

REASON:

RESPONSIBLE PARTY

RESULT:

CORRECTIVE ACTION TAKEN:

FOLLOW-UP ACTION TO BE TAKEN:

ADDITIONAL COMMENTS:

GOOD PERFORMANCE

Description of activity or action in which contract went beyond compliance towards responsible care for the environment:

ADDITIONAL COMMENTS

APPENDIX 4 - Namushasha River Lodge Environmental Clearance Certificate



REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: (00 26461) 284 2111
Fax: (00 26461) 229 936

Cnr Robert Mugabe &
Dr Kenneth Kaunda Street
Private Bag 13306
Windhoek
Namibia

E-mail: hiskia.mbura@met.gov.na
Enquiries: Mr. Hiskia Mbura

08 June 2017

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

The Director
Nature Investment (Pty) Ltd
Namushasha River Lodge
P. O. Box 80205
Windhoek, Namibia

Dear Sir or Madam:

SUBJECT: ENVIRONMENTAL CLEARANCE CERTIFICATE FOR OPERATION ACTIVITIES AT THE EXISTING NAMUSHASHA RIVER LODGE, ZAMBEZI REGION

The Environmental Scoping Report and Environmental Management Plan submitted are sufficient as it made provisions of the environmental management concerning the project's activities. From this perspective regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored throughout this process.

This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project. In addition, the Environmental clearance certificate is issued with the condition that: all applicable and required permits are obtained and mitigations measures are applied particularly with respect to management of ecological impacts.

On the basis of the above, this letter serves as an environmental clearance to continue with operation activities at the existing Namushasha River Lodge. However, this clearance letter does not in any way hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from these activities. Instead, full accountability rests with Nature Investments (Pty) Ltd and their consultants.

This environmental clearance is valid for a period of 3 (three) years, effective from the date of issue unless withdrawn by this office.

Yours sincerely,


Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER



"Stop the poaching of our rhinos"

All official correspondence must be addressed to the Permanent Secretary

APPENDIX 5 – Namushasha River Lodge Environmental Management Plan

GONDWANA
NAMUSHASHA
RIVER LODGE
NAMIBIA

ENVIRONMENTAL MANAGEMENT PLAN

July 2016 – Dec 2019



Third draft April 2017

Table of Contents

1. Introduction.....	2
2. Description.....	2
3. Lodge Vision.....	4
4. Infrastructure Footprint	5
5. Guest activities conducted	6
6. EMP Objectives.....	6
7. Implementation of the EMP.....	7
8. Management Actions	8
9. Environmental monitoring.....	12
10. Conservation laws and regulations and company policies	13

1. Introduction

This Environmental Management Plan (EMP) describes a list of management actions that are required firstly to enhance the operations of the establishment and secondly to identify and minimize any negative impacts that may result from the normal operational functions.

2. Description

The Namushasha River Lodge is located in the Zambezi Region, off the C49, 25 kilometres south of Kongola and 130 kilometres from Katima Mulilo, which is the nearest main town. The lodge lies on the eastern bank of the Kwando River and directly opposite the Bwabwata National Park, which is the largest of the three National Parks in the region.

The lodge is within the Mashi Conservancy and there is a joint venture operation between them and the Gondwana Group. The lodge has an exclusive area with a radius of 1.5 kilometres which has been set aside for tourism related activities (Figure 1).

The agreement between Gondwana and the conservancy is monitored for compliance by both parties on a joint management committee (JMC) which meet four times per year. A compliance matrix has been developed and this is used to ensure compliance by both parties. The JMC also handles a range of issues to ensure that all opportunities and threats to the partnership are addressed timeously and to encourage a strong partnership.

The lodge consists of the following:

- Main building consisting of reception, restaurant, bar, curio shop, kitchen and offices
- Accommodation clusters, of six and eight buildings, placed on either side of the main building that provide a total of 27 rooms and 57 beds
- One medium sized swimming pool
- A boat launching area
- Senior and junior staff accommodation, managers' house, laundry, workshop and generator room.
- A 16 site camping area, with a centrally situated "lapa" under thatch roof, which has gas cooking facilities and washing area. There are also four separate ablution blocks.

Water for lodge supplied by one borehole and stored in 2 x 5000 litre tanks.

Water for lawn supplied from the river after it has undergone a filtration process.

Sewerage is contained in septic tanks with soak-away systems.

All buildings are of solid brick, cement and thatch construction.

The lodge is connected to the national electricity grid, with one 50Kva diesel generator as back up.

Location of Gondwana Namushasha River Lodge

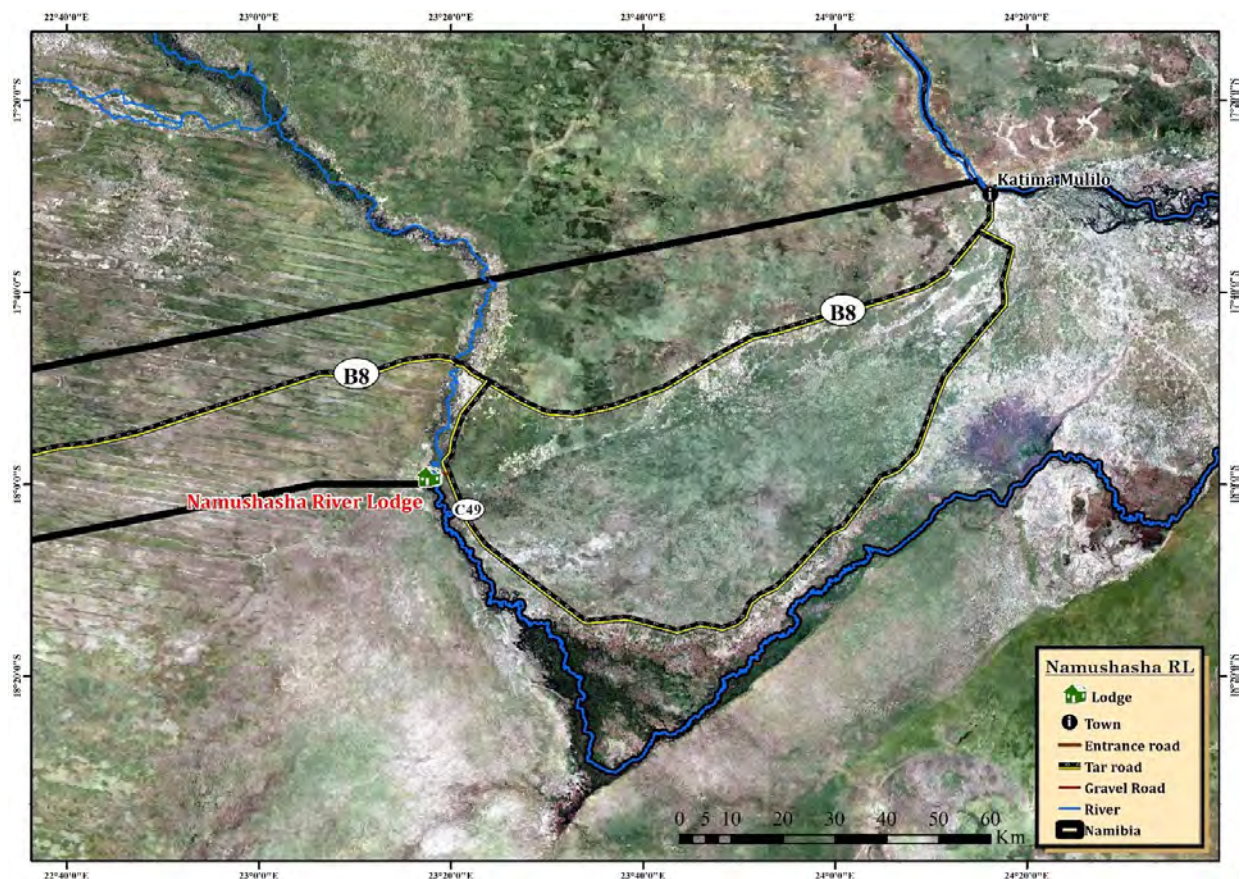


Figure 1. Location of Gondwana Namushasha River Lodge

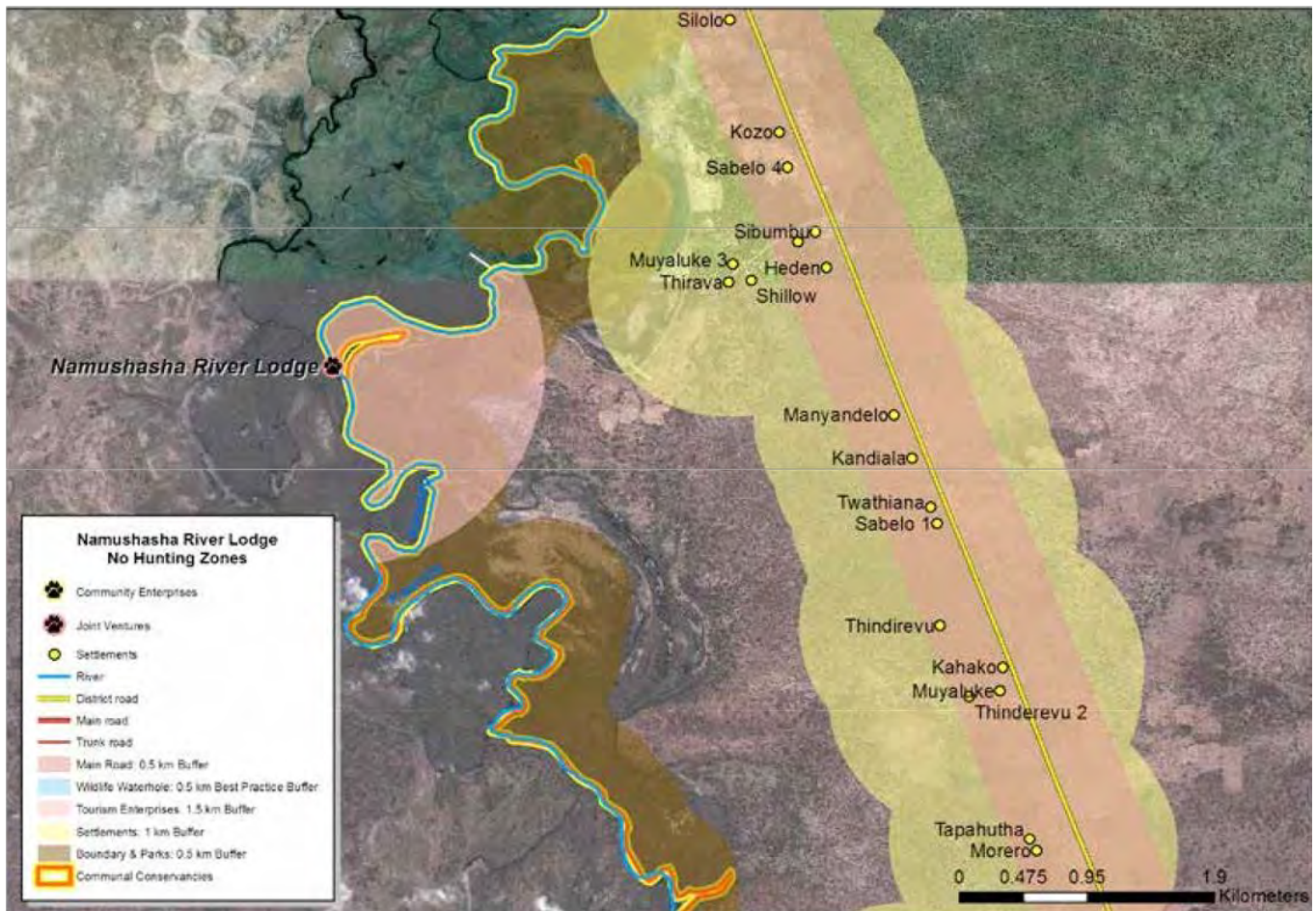


Figure 2: Location of Namushasha Lodge on the Kwando River in the Zambezi (formerly Caprivi) Region showing its 1.5 km radius exclusive tourism area and nearby settlements.

3. Lodge Vision

“Riches of the River”



The thatch-roofed Zambezi kingdom elegantly positioned under trees, looking out onto reeds and the Kwando River. It is a wilderness haven where the lethargic sound of hippos grunting floats through the air intermingling with birdsong. This is a place of abundance and natural splendour.

4. Infrastructure Footprint

The infrastructure footprint for Namushasha River Lodge (Figure 3) indicates the area that is currently utilised by the lodge. Attention must be paid to this geographic footprint in order to prevent 'area creep' in the future.

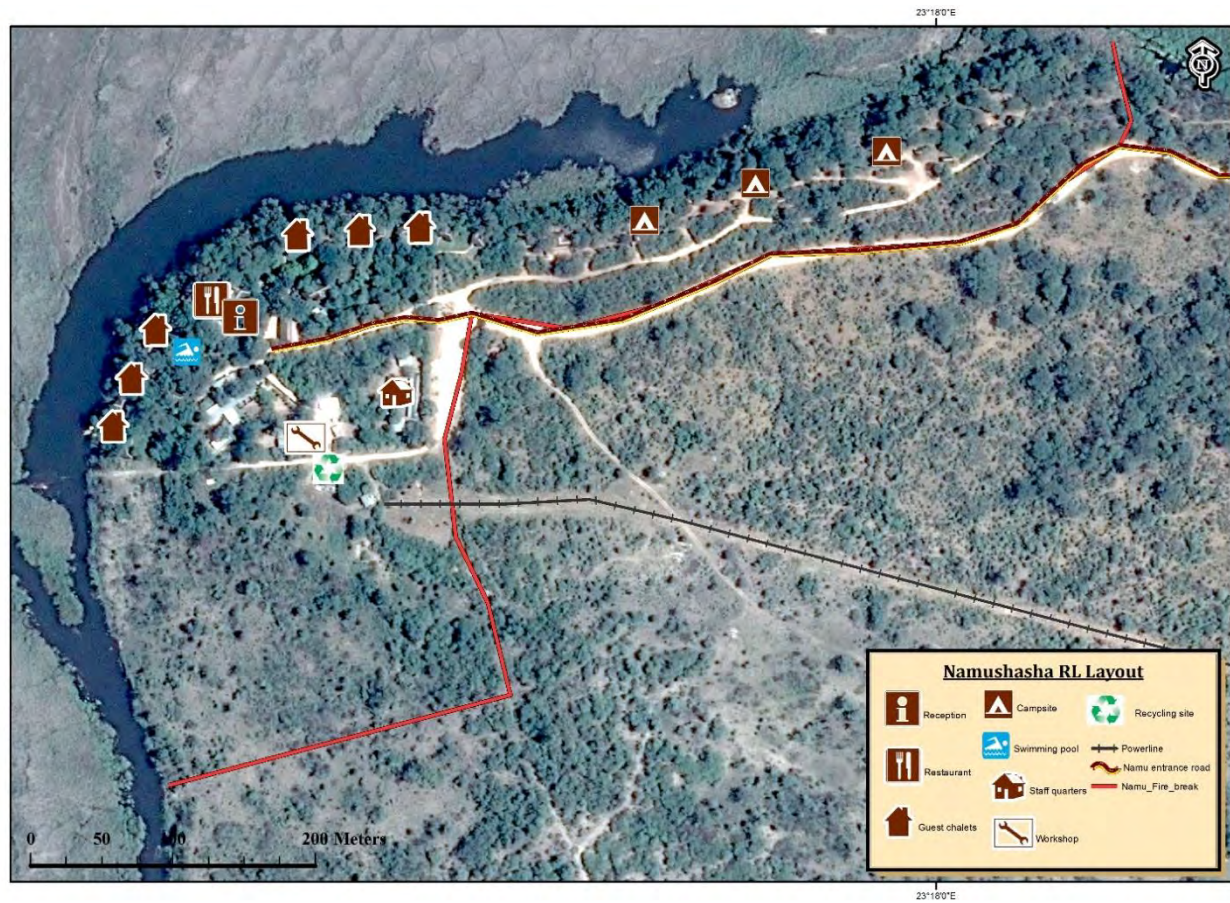


Figure 3. Current infrastructure footprint - Namushasha River Lodge, 2016.

5. Guest activities conducted

- a) Walking trail to community heritage centre
- b) Guided boat cruise on the Kwando river
- c) Guided fishing cruise on Kwando river
- d) Guided game drives in the Bwabwata National Park



Figure 4. Namushasha guest activities

6. EMP Objectives

The objectives of this plan are to:

- a) Enhance the socio-economic and pro- biodiversity impacts of the operation
- b) Identify, minimize and mitigate negative environmental impacts of the operation
- c) Meet the requirements of relevant legislation
- d) Initiate a process which ensures that successive managers have a consistent environmental approach to operating the lodge into the future in conformity with Executive Management and Board guidelines and systems

- e) Enable management to monitor and mitigate environmental impacts
- f) Create awareness amongst all staff on the importance of maintaining sound environmental practices in all spheres of operation
- g) Implement the environmental policies and philosophy of the Gondwana Collection
- h) In close co-operation with the Gondwana Environmental Committee, promote and sustainably manage biodiversity conservation in the region, which in turn will increase the opportunities for ecotourism activities in the local area and create employment opportunities (living museum, community development and engagement, botanical walks, bird watching cruises, fishing trips & Sundowner cruises.)

The strategies employed to achieve the above objectives include:

- a) Ensure that the EMP becomes an integral part of the daily operating procedures for the Lodge via the Annual Work Plan, which includes environmental monitoring.
- b) Create environmental awareness among all staff and build environmental responsibility and authority into job descriptions and operations manuals.
- c) Expose guests to this awareness program through information materials and encourage their active participation where appropriate.
- d) Subject the lodge and its activities to independent, external assessments from time to time via eco awards Namibia.

7. Implementation of the EMP

7.1 EMP Administration

This EMP has been reviewed by Gondwana's Environmental Committee and approved by the Gondwana Board. It is the principle policy document guiding daily environmental operational issues at the Lodge.

The Lodge Managers shall carry the overall responsibility for the implementation of the EMP and Gondwana's Environmental Officer will be responsible for monitoring the process.

The EMP is, however, a dynamic document and needs to respond to changing conditions over time. All lodge staff are encouraged to find ways to improve environmental standards and to test new approaches. Such change shall be motivated by the lodge management and submitted to the Gondwana Environmental Committee for review. The Committee will look favourably on new innovative ideas that improve both environmental management and efficiency and will facilitate their sharing with other lodges in the Gondwana Collection.

7.2 Environmental Awareness Training

Once the EMP has been approved all employees shall undergo an awareness training program, aimed at explaining the roles and responsibilities of all staff as well as the reasons and importance of good environmental management. Where appropriate, specific activities contained in the EMP shall be included in job descriptions and be recognised as key performance areas against which staff shall be evaluated.

8. Management Actions

Objective	Management Measure	Monitoring Action & Method	Responsibility
To ensure that company Environmental policies & the EMP are understood by management & staff	Environmental policies & EMP incorporated into contract of lodge manager	Contract which aligns Environmental policies & EMP	Head: HR
	Staff receive training and understand the implications and reasons for the EMP	Training held & roles and responsibilities of various staff members clearly spelt out and included in job descriptions	Lodge Management, Environmental Officer
	External monitoring of EMP process via Eco-Awards	Submit lodge for Eco-Awards August 2015	Lodge Management, Environmental Officer
Ensure that the agreed socio-economic benefits of the JV contract are achieved	Implement contract monitoring tool at quarterly JV meetings	Ensure that JV agreement is reviewed and acted upon and attend JMC meetings and circulate minutes to Operations Manager and Environmental Committee	Lodge Manager Environmental Officer
	Maintain regular contact with conservancy management	Communicate as the need arises to address issues of mutual interest/concern	Lodge Manager Environmental Officer
	Provide support where appropriate, for conservancy income generating enterprises (e.g. Namushasha Heritage Centre)	Support tabled and recorded during JV meetings	Lodge Manager Environmental Officer
	Provide support with wildlife monitoring	Participate when possible in Annual Game Counts and event book monitoring	Lodge Manager, Guides
	Ensure all payments made in accordance with the JV contract	Share at JV meetings and keep monthly records	Lodge Manager
Minimise impacts on vegetation	Identify and remove existing invasive alien plants in lodge area	Conduct regular inspections and keep staff informed when the need arises to remove	Lodge Management, HOD Maintenance
	Ensure introduced ornamental plants are indigenous to the area or non-invasive (e.g. for screening of walls, unsightly fences etc.)	Ask Environmental Committee for list of suitable plants, if required	Lodge Management, HOD Maintenance
	Conduct activities with due regard for vegetation – e.g. river boat cruises	Guide training on boat handling & monitoring	Lodge Management, Guides
Minimise impact on wildlife	Staff do not have an impact on wildlife	Staff to be aware of the legal implications and company	Lodge Management

		policy in catching, trapping or killing wild animals	
	No wild or domesticated wild animals will be kept	Including mammals, birds, reptiles and amphibians	Lodge Management
	Implement company domestic animal/pet policy	Especially, no non-neutered domestic cats will be kept	Lodge Management
	Game drives and River boat cruises do not unduly disturb wildlife and cause them to move out of the area	Guides to be trained on not causing disturbance to wildlife especially key and sensitive species	Lodge Management, Guides
	Only catch and release fishing allowed.	All fish caught needs to be put back into the river. No fish may be taken back to the lodge.	Lodge management, Guides
Capitalise on presence of lodge for biodiversity and environmental management	Maximise wildlife viewing opportunities for guests	Encourage guests to go on river cruises or botanical walks	Lodge Management, Reception, Guides
	Complete wildlife monitoring forms on all game drives	Submit to MET every quarter and share at quarterly JV meetings	Lodge Management, Guides
	Assist with game counts in Mashi Conservancy (level of participation shall depend upon lodge activities)	Conduct annually to assist conservancy as per annual count	Lodge Management, Guides
	Participate in specialist monitoring as recommended by Environmental Committee	As per requirements of programme	Environmental Officer, Lodge Management, Guides
	Provide reports on introduced species in Mashi Conservancy	Share records with conservancy & MET and Environmental Committee as required	Lodge Management, Guides
	Maintain integrity of area	Report any suspicious behaviour to conservancy and MET	Maintenance, Lodge Management
Minimise land degradation & erosion	Minimise potential impact of wildfires and reduce risk of fire damage to lodge	Maintain cleared areas around all accommodation. Maintain 'Fire fighter' on weekly basis	Lodge Management, Maintenance
	Rainfall run-off at lodge site does not cause undue erosion	Regular inspections and if required remedial contouring or drainage	Lodge Management
	Ensure that tracks used exclusively for lodge activities in the exclusive tourism area of the JV	Undertake inspections twice per year and, if required, install additional drainage or undertake whatever repairs	Lodge Management, Guides

	contract are not subjected to erosion	required to rehabilitate and reduce erosion	
To preserve scenic quality & “sense of place”	Ensure that all buildings/structures and/or renovations are in accordance with the best practice of minimising visual impact	Regular inspections of screens, pipelines etc. hiding services & installations are functional and if required repair	Lodge Management, HOD Maintenance Gondwana Operations Manager (for all new developments)
Minimise impact on water resources	Staff are aware of the need to use water wisely	Undertake staff training	Lodge Management Environmental Officer
	Water usage & consumption is within the “best practice guidelines”	Install water meters. Monitor water usage on a monthly basis and calculate usage per guest and for staff members and compare against targets	Lodge Management Environmental Officer
	Water for gardens managed to reduce unnecessary waste	Provide training to gardeners. Water gardens in evening & early morning	Lodge Management, HOD Maintenance
	There is no leakage from water systems	Undertake regular inspections of all water pipes	Lodge Management, HOD Maintenance
	Cut down on water usage	Investigate replacing current toilets and showers with dual flush, low flow versions	Lodge Management, HOD Maintenance
	Guests aware of the need to use water wisely	Place appropriate information in rooms emphasizing the need for wise water use	Lodge Management
Minimise energy use & wastage	Staff are aware of the need to save energy	Undertake staff training	Lodge Management
	Energy use is within the “best practice guidelines”	Install electricity meters. Monitor energy usage on a monthly basis and calculate usage per guest and for staff members and compare against targets.	Lodge Management, HOD Maintenance
	Wood for fires is from invasive wood eradication projects, or is from a sustainable source	Investigate sources of wood from a sustainable source. Try to ensure wood has a permit from dept. of Forestry	Lodge Management
	Guests are aware of the need to save energy	Place appropriate information in rooms emphasizing the need for energy saving	Lodge Management
	Electrical cables are intact	Undertake regular inspections of all electrical cables	Lodge Management, HOD Maintenance
	Use Low energy bulbs where appropriate	Replace CFL’s with LED’s when the bulbs stop working	Lodge Management, HOD Maintenance
Minimise soil, water & air pollution	Disposal procedure for used oils in place	Old engine oil used to weatherproof/termite proof	Lodge Management, HOD Maintenance

		poles. Old cooking oil can be sold to staff	
	Spillages of potentially harmful substances must be cleared immediately and disposed of at an appropriate site	Inspection and follow-up clean-ups if required	Lodge Management, HOD Maintenance
	Functional fat traps	Inspect & clean regularly	Lodge Management, Chefs
	Functional soak-away	Inspect on a regular basis	Lodge Management, HOD Maintenance
	Functional & leak free covered drains	Inspect on a regular basis	Lodge Management, HOD Maintenance
	Functional and leak-free waste water pipes	Inspect on a regular basis on repair if required	Lodge Management, HOD Maintenance
	Use of environment-friendly soaps & detergents	Ensure that procurement specifies this need	Lodge Management, HOD Housekeeping
	Consistent water quality	Test water quality once a year	Lodge Management
	No contamination of soil or water by fuels or oil	Ensure that all fuels stored and managed to reduce risk of spillages	Lodge Management, HOD Maintenance
	No poisons or pesticides used	Ensure no pesticides such as 'Doom' are present in rooms	Lodge Management, HOD Housekeeping
Minimise impact of motor boats on exposed banks of Kwando River	Ensure that guides handle boats with due regard for the potential for wave action to undermine exposed river banks	Identify sensitive areas on river used on boat cruises. Develop & implement protocol for boat skippers. Provide training on: a) Impact of undermining exposed banks b) Best practice to minimise wave action in sensitive areas	Lodge Management, Trained Guides
Manage solid waste according to best practice standards	Separate organics, metal, glass etc. waste	Monitor the units of waste produced per week Grass all glass and used crushed glass where possible.	Lodge Management HOD Maintenance
	Crush all glass bottles	Use glass crusher to crush all glass on site, and use crushed glass in appropriate manner	Lodge Management HOD Maintenance
	Dispose of organic plant waste as far as possible for pigs	Purchase and house pigs, Regular inspections	Lodge Management HOD Maintenance
	Dispose of garden waste in compost heap	Build compost heap. Inspect on a regular basis	Lodge Management, HOD Maintenance
	Discard animal waste including bones in suitable well managed container	Inspect container on regular basis	Lodge Management, HOD Maintenance

9. Environmental monitoring

The following actions form the basis of the primary monitoring activities that shall be executed regularly in order to function within the environmental and operational parameters as prescribed. However, the actions below must be undertaken within the context of the measures and monitoring in section seven of this EMP

Aspect to be monitored	Specific monitoring	Frequency	Responsibility
Water consumption	Litres used /guest/staff and gardens (after meters installed).	Daily readings Calculated monthly	Lodge Management, HOD Maintenance
Water filtration plant	System is functioning correctly, Volume of water used	Daily readings calculated monthly	Lodge Management, HOD Maintenance
Ground water	Water Quality Volume of water used	Annually Calculated monthly	Lodge Management, HOD Maintenance
Energy consumption	kWh used /guest/staff/gardens (after meters installed).	Daily readings calculated monthly	Lodge Management, HOD Maintenance
Electricity timers & daylight switches	Correct functioning	Weekly	Lodge Management, HOD Maintenance
Fuel consumption	Km driven by lodge vehicles/ boats Litres of petrol per vehicle/boat per week	Monthly odometer & pump readings	Lodge Management, HOD Maintenance
Drainage system, fat traps & soak away	Leakage, effectiveness of bacteria	Daily	Lodge Management, HOD Maintenance
Appropriate soaps, detergents etc.	All soaps, detergents comply with specifications of being bio-degradable & are suitable for use in septic tanks	Monthly	Lodge Management, HOD Housekeeping
No Pesticides in rooms	Check guest rooms. No Doom supplied to rooms	Daily	Lodge Management, HOD Housekeeping
Blankets & top sheets for beds	Check guest rooms	Daily	Lodge Management, HOD Housekeeping
Fit fly screens on all windows that open	Buy any screens that are needed. Check regularly	Monthly	Lodge Management, HOD Maintenance
Gas installations	Correct functioning	Weekly	Lodge Management, HOD Maintenance. All staff concerned
Water reticulation systems	Irrigation pipes/ taps/ sprayers etc	Daily / weekly on-going	Lodge Management, HOD Maintenance All staff concerned
Swimming pool	Clean and correct chlorine levels	Daily/weekly	Lodge Management, HOD Maintenance
Solid Waste Management	Correct sorting, storage and disposal of inorganic and organic material. Units of waste produced each week	Daily / Weekly	Lodge Management, HOD Maintenance All staff concerned

Fuel and gas storage facilities	Correct storage of fuel and gas to prevent leakage, spillage and fire	Daily/ Weekly	Lodge Management, HOD Maintenance All staff concerned
Fuel leakages in car parks	Check car parks for any fuel/oil spillages. Remove & replace contaminated gravel	Daily/Weekly	Lodge Management, HOD Maintenance

10. Conservation laws and regulations and company policies

All lodge operations shall be executed in accordance with the below listed conservation laws and regulations and company policies. Copies of all legislations and policies shall be kept at the lodge in a place accessible to all staff members.

- Namibia's Draft Procedures and Guidelines for Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP), No 1 of 2008
- Nature Conservation Ordinance No 4 of 1974; and amended acts
- Parks and Wildlife Management Bill (2009)
- Environmental Management Act 7 of 2007
- The Environmental Investment Fund of Namibia Act 13 of 2001
- Water Act 54 of 1956
- Animals Protection Act 71 of 1962
- Marine Resources Act 27 of 2000
- Water Resources Management Act 24 of 2004
- Forest Act 12 of 2001
- Game Products Trust Fund Act 7 of 1997
- National Heritage Act 27 of 1975
- Namibian Labor Act No 11 of 2007
- Communal Land Reform Act of 2003
- The United Nations Convention on Biological Diversity
- Gondwana HR Policy
- Gondwana Collection Environmental Policy
- Gondwana Boat Handling Code of Conduct

APPENDIX 6 – Gondwana – Namushasha Houseboats, Interiors Concept

GONDWANA – NAMUSHASHA HOUSEBOAT

INTERIORS CONCEPT

Prepared by
FOX BROWNE CREATIVE
November 2016



- The boat must be an exhilarating, romantic experience
- Guest should feel safe but pushed out of their comfort zone
- The frame is 4,5m wide x 12m length
- It is a double deck aluminum and stainless steel structure
- 6 x Pontoons with middle pontoons housing fresh ,grey water tanks & Batteries
- Must be crocodile, elephant and mosquito proof
- Must be “windproof”
- Use of serge Ferrari Soltis 86 fabric
- Boat will be anchored semi permanently
- Structure, walls, floors, cladding by Gondwana team

- Best quality binoculars
- Comprehensive set of mammal, reptile, bird
- Air-conditioned sleeping area
- Fully stocked bar with premium brands including champagne
- Fully stocked snack cabinet with homemade nibbles
- Pre-prepped stylish braai pack for guests to cook their own food
- Pre-prepped continental breakfast box
- Mini kitchenette with Nespresso machine



NAMUSHASHA HOUSEBOAT – THE START

- Inspired by the natural handmade quality of a Kerala houseboat
- The boat should look as if it's a big basket floating on the river
- The overall silhouette of the boat should be very sculptural and blend into the surrounding riverine



NAMUSHASHA HOUSEBOAT -
CONTEMPORARY KERALA HOUSE BOAT



NAMUSHASHA HOUSEBOAT - REED CONCEPT



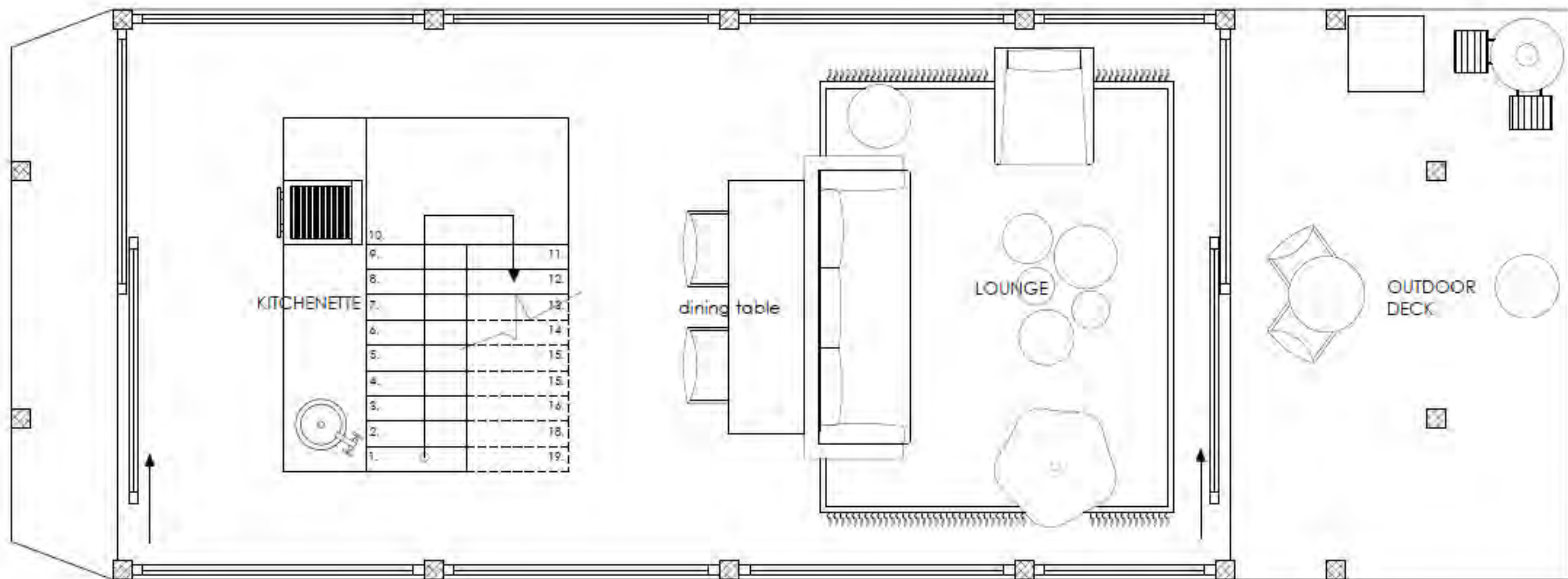
NAMUSHASHA HOUSEBOAT - REED CONCEPT

SOLAR PANELS

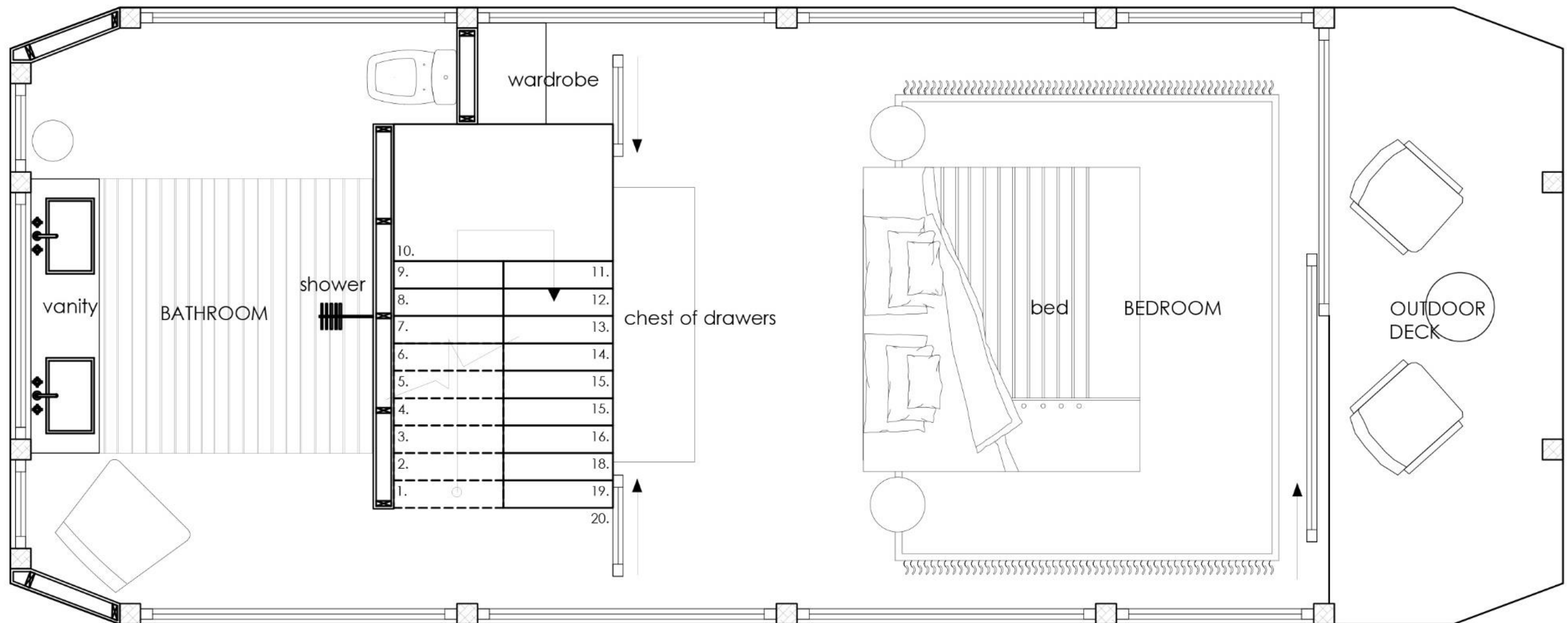


NAMUSHASHA HOUSEBOAT - REED CONCEPT

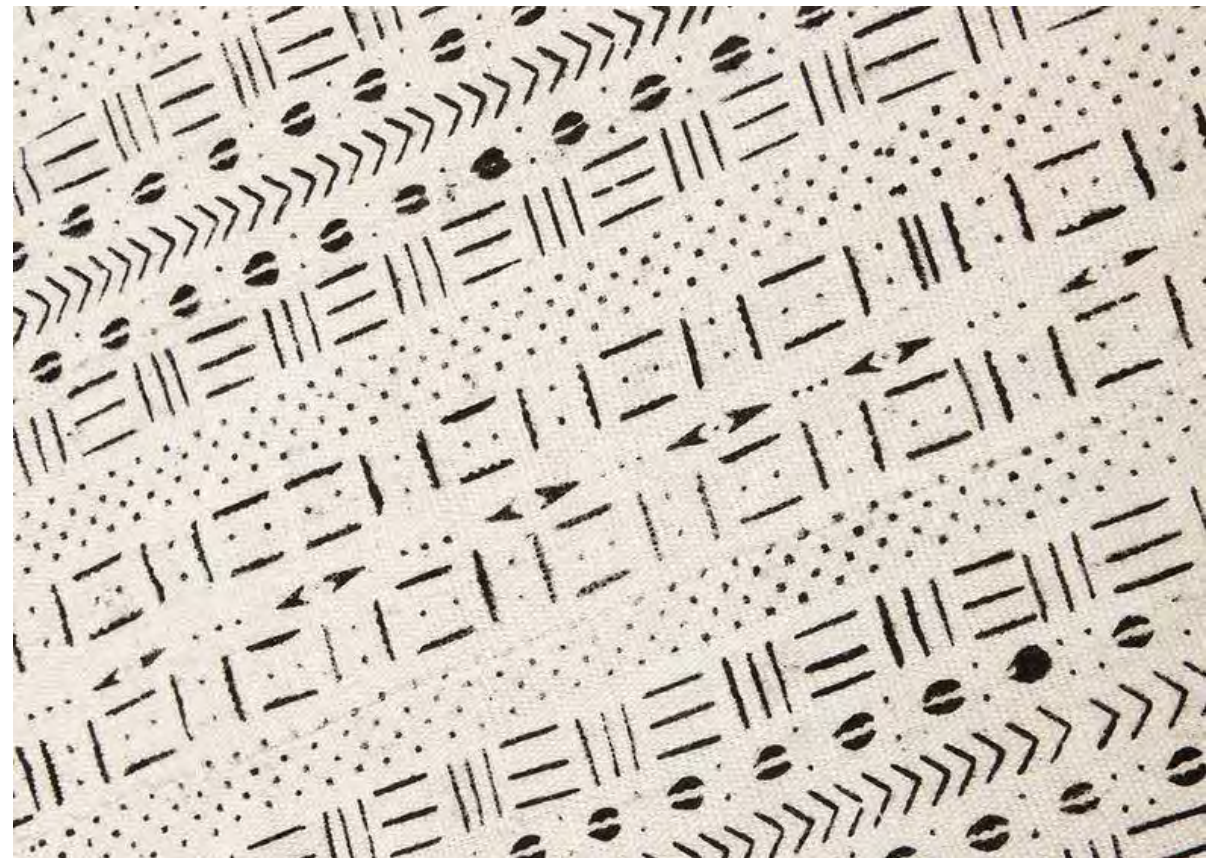
FOXBROWNE CREATIVE
CREATIVE HOSPITALITY



NAMUSHASHA HOUSEBOAT - LOWER DECK PLAN



NAMUSHASHA HOUSEBOAT - UPPER DECK PLAN



NAMUSHASHA HOUSEBOAT - TEXTURES

Kitchen cupboards



Cupboard detail



Built in fridge



Big Green Egg – for the outdoor braai



Nespresso machine



Wooden accessories





NAMUSHASHA HOUSEBOAT - KITCHEN PERSPECTIVE

Wallpaper finish



Woven armchair



Pendant lights



Reed inspired sofa



Bloom armchair



NAMUSHASHA HOUSEBOAT - LOUNGE



Woven grass styling items



Staircase design



Wooden cladding along staircase



Wooden stools



NAMUSHASHA HOUSEBOAT - LOUNGE



Gas or bioethanol coal fire bowl



Outdoor armchair



NAMUSHASHA HOUSEBOAT - LOUNGE



NAMUSHASHA HOUSEBOAT – LOUNGE PERSPECTIVE



NAMUSHASHA HOUSEBOAT - LOUNGE PERSPECTIVE

Bedframe option 1



Bedframe option 2



Standing lamp

Organic shaped baskets



Cabinet



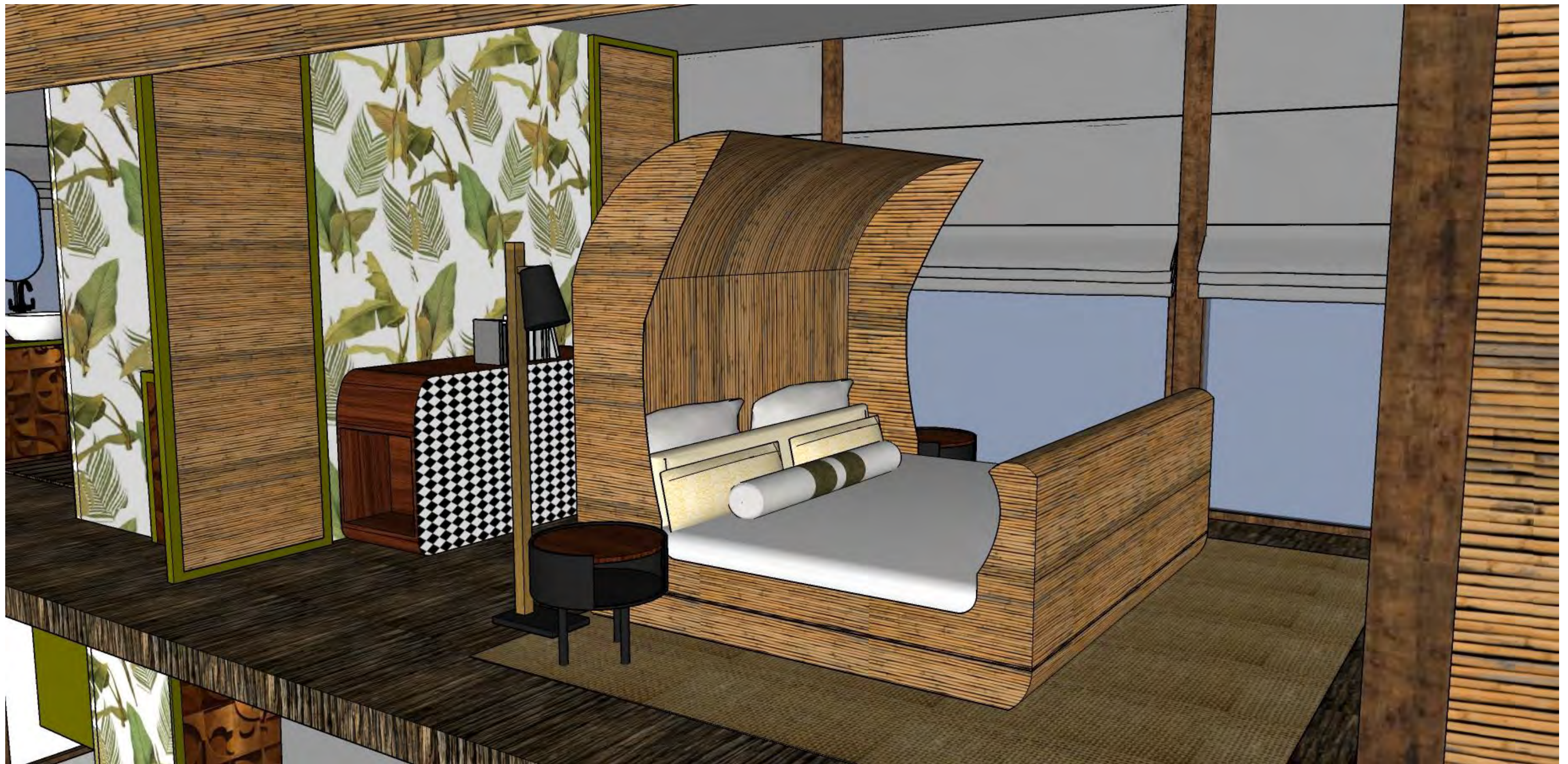
Occasional chair



Bedside table



NAMUSHASHA HOUSEBOAT- BEDROOM PERSPECTIVE



NAMUSHASHA HOUSEBOAT - BEDROOM PERSPECTIVE

Counter top basin and tap



Shower wall - wallpaper



Ceiling shower head





NAMUSHASHA HOUSEBOAT - BATHROOM PERSPECTIVE



NAMUSHASHA HOUSEBOAT – SHOWER PERSPECTIVE

A vibrant African river House Boat, inspired by river reeds and basket weaving of the region. A place just “to be”. Time to fall in love with each other and the world again. An experience full of Adventure by day and Romance by night, giving Guests the luxury of sleeping on a wild African river with nothing but the sound of the African wilderness for company.

Fox Browne Creative

Debra Fox & Chris Browne

Email: debra@foxbrowne.com

Email: chris@foxbrowne.com

Tel: +27 83 280 7304

Tel: +27 83 456 8994

Tel: +27 11 440 9357

www.foxbrowne.com



APPENDIX 7 - Employment and Skills Development Plan with the Mashi Conservancy



Gondwana Namushasha River Lodge

Employment and Skills Development Plan between
Namushasha River Lodge and the Mashi Conservancy

P-K S

Table of Contents

Introduction.....	2
Objectives of this Employment and Skill Development Plan.....	3
Implementation	3
I. Employment and recruitment procedures	3
II. To formulate plans to development skills of local employees.....	7
III. To develop a framework for regulating Social Responsibility efforts, assistance programmes, donation and community welfare efforts	11

Introduction

The purpose of this document is to formulate a plan for Employment and Skills Development of the Mashi Conservancy members at the Gondwana Namushasha River Lodge.

The guiding documents for this plan are:

- i) The Memorandum of Agreement signed between the Mashi Conservancy and Namushasha Country Lodge (inherited by Gondwana Namushasha River Lodge);
- ii) The Gondwana Human Resources Policies
- iii) The Namibian Labour Act No.11 of 2007

The above mentioned documents considered; the Gondwana Namushasha River Lodge is committed to developing skills and livelihoods in the Mashi Conservancy. A committee consisting of representatives from The Mashi Conservancy and the Namushasha River Lodge with an objective Chairperson will steer this process to ensure its successful execution.

The said committee will consist of the following persons:

- Victor Makendano (Mashi Conservancy Manager)
- Robbin Lyonga (Mashi Conservancy Senior Enterprise Officer)
- Moscow Mawaya (Mashi Conservancy Junior Enterprise Officer)
- Namushasha Lodge Manager (Gondwana)
- Environmental Officer (Gondwana)
- HR Manager (Gondwana)
- Gondwana Director (Floating Chairperson)

The committee are to meet once every three months (to coincide with the quarterly Conservancy JV meetings) to assess and discuss the progress of the development plan.

Objectives of this Employment and Skill Development Plan

The main objectives of this Employment and Skills Development Plan are:

- i. To clarify employment and recruitment procedures of local community members at the Lodge; and to clarify and adhere to Employment targets.
- ii. To formulate plans for the development of skills of local employees.
- iii. To develop a framework for regulating Social Responsibility efforts, assistance programmes, donation and community welfare efforts.

Implementation

I. Employment and recruitment procedures

As per the Gondwana Human Resources Policies (Section 3: Recruitment Policy) and subject to Section 5.5.4 of The Memorandum of Agreement signed between the Mashi Conservancy and Namushasha Country Lodge (inherited by Gondwana Namushasha River Lodge) which reads: "maintain a minimum of 20 permanent employees from the Conservancy unless the occupancies fall below 20% average per year".

Gondwana HR policies:

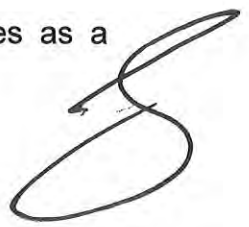
Section 3: Recruitment Policy

Introduction

Our business always aims to employ the best candidates based on merit and competence.

Procedure in short

- Once a vacancy has been identified, Lodge Management is to create a position description for the job covering key activities, tasks, skills required, and expectations.
 - When advertising, discriminatory language is to be avoided.
 - Target the requirements of the job, and discuss vacant position with Human Resources before any recruitment process takes place.
- The recruitment process may include some or all of these: an application form, interviews, practical testing, reference checks, and right to work in Namibia checks.
 - If undertaking an interview ensure there are no possible discriminatory questions
- Give the successful candidate a job offer, setting out clear terms and conditions. This includes the nature of employment e.g. probationary, permanent, and part-time or contract work.
 - The Job offer should include a welcome note and start details.
- Once the candidate has accepted, contact the unsuccessful candidates as a matter of courtesy.

P. / K 

Objective

The objective of this policy is to provide management with a set of procedures to use when the need arises to engage new employees into the company; to provide new employees with an introduction to their new workplace; and to provide clarity concerning the company rules and regulations, in order for them to fit in quicker and feel at ease for optimum productivity.

When a vacancy appears, the supervisor/manager of a specific department will forward an Employee Specification form to the HR department.

The Recruitment Procedure:

- Confirm vacancy and ensure that the position has been budgeted for in collaboration with Gondwana HR Department.
- Draft an internal job posting and have it approved by the HR.
- A written notification of the available position to be sent to the Conservancy upon internal posting of advert.
 - The Lodge Manager is to deliver the advertisement to the Mashi Conservancy office and the EO or a proxy will sign acceptance and receipt thereof – template for advertisements attached as ANNEX 1
- Applicants to be given up to a maximum of **4 (four) weeks** to apply.
- Only completed Job Application forms with relevant qualifications to be accepted – template of Job Application form attached as ANNEX 2
- Local community and Mashi Conservancy members with relevant qualifications to be considered first.
- Lodge Management to collect application forms from the Mashi Conservancy Offices on the date that applications close.
- Short-listing and interviewing procedure to be followed.
- Lodge Manager to inform Mashi Conservancy of candidates that have been shortlisted.
- Only shortlisted candidates to be invited for interview.
- Approval to be gotten from the HR Department for appointing the incumbent employee in the available position.
- Only interviewed candidates to be notified of outcome (whether successful or unsuccessful).
- Lodge Management to inform Mashi Conservancy once position has been filled.

Guidelines / requirements of job adverts:

- Position to be clearly defined, with summary of framework of responsibilities
- Qualifications, education and experience required to be clearly stated

Sources to use for external recruitment after internal and Conservancy advertising has been concluded:

- Newspapers
- Employment agency
- Internet
- By word of mouth

Procedure or short listing

All applications should be studied and those applicants who meet the majority of the requirements should be short listed. A short list of up to (but not required) **5 (five)** applicants is desirable.

Reference taking

A reference check will be done on all potential applicants in order to assess their potential based on their past performance, attitude and behaviour. Confidentiality has to be maintained at all times. A reference check form has to be completed whilst conducting the reference interview.

Interviewing

The Human Resource Manager or appointee (Lodge Manager) and the respective head of department shall interview each potential candidate.

Procedure

The candidate has to be informed at least **24 hours** prior to the interview about the time, venue and what additional documentation he/she should bring along.

After the interview, the following tools should be used to choose the most suitable candidate:

- The application
- The interviewing notes
- References

Match these tools to the job and employee specifications, obtain a second opinion if necessary and finally chose the best candidate.

Sign On

Each new engaged employee shall have to go through the sign on procedure before commencing with his/her duties. The HR department will administer the sign on procedure. A formal letter of appointment has to be forwarded to the new employee.

Induction

A new employee shall be inducted in order to adjust as quickly as possible to the new social and working environment to achieve maximum working efficiency in the shortest possible time. Upon induction, the following are the basic induction tools (to be explained to the employee):

- Contract of employment
- Disciplinary Policy, Code and Procedures
- Grievance procedure
- Communication structure
- Safety policy
- Job description
- Introduction to the workplace
- Any other relevant company policy

Recruitment for short term contracts must follow the same process.

Employment targets

As per section 5.5.4 of The Memorandum of Agreement signed between the Mashi Conservancy and Namushasha Country Lodge (inherited by Gondwana Namushasha River Lodge) which reads: *"maintain a minimum of 20 permanent employees from the Conservancy unless the occupancies fall below 20% average per year"*

Summary of employee profile at Namushasha Lodge as on 1 May 2016:

- Current total employees employed at Namushasha Lodge
 - 43
- Current total employees from Mashi Conservancy
 - 38 (88.37% of staff)
- Current total employees from Namushasha Community
 - 38 (88.37% of staff)
- Employment targets
 - 20 permanently employed staff members, unless occupancy drops below 20%
- % Employed at Namushasha
 - Gondwana current total = 581 employees
 - Namushasha current total = 43 employees
 - Namushasha makes up 7.4% of total Gondwana headcount

II. Formulate plans to development skills of local employees

As per section 7 of the Gondwana HR Policies:

Training Policy

Introduction

Gondwana will give employees adequate training to do their job safely and competently. Gondwana believes training is a two-way process. We encourage employees to participate and to highlight any gaps in their own skills or knowledge they believe they have.

Training includes internal on-the-job training, written instructions such as standard operating procedures, coaching, external training and courses.

Safety training takes precedence.

Scope

Gondwana is known for the excellence of its service and staff:

- Gondwana Collection commits to invest in education and training of every member of staff;
- The personal development of each staff member is the valuable goal of the values of Gondwana.
- Each employee has to commit to participate in the offered programs;
- The programs provide a transparent system of quality assessment, personal development and training, resulting in a Gondwana certified acknowledgment of abilities and skills, recognized by the Namibian job market;
- All training scopes are agreed to in dialogue with the trainee;
- The Gondwana 3-Pillars-Philosophy regarding people, finance and natural resource management serves as a guideline for the department: conservation and people development, financed by providing quality hospitality services;

Guiding Principle

Each employee is recognized as an individual with individual needs, priorities and preferences.

Legal status

National Namibian regulations are the basis for courses in health, safety, diversity etc.

Method of Training & Development

Gondwana has a three-pronged approach to training and development:

1. "External" training by certified training providers (this training may be conducted on premises or at specified venues which will include the Leadership Development Program at the Gondwana Academy

2. On the job or internal training
3. Rotational Development Program

It is the view of Gondwana that employees can gain very valuable experience and training from experiencing conditions at any one of our 14 properties.

The aim of the Rotational Development Program (Secondment Program) is to offer all Gondwana employees the opportunity to work and live at a variety of our properties for periods of at up 3 – 6 months. During these months, they will live and work at a Gondwana property, as they would at their place of employment, with all the benefits as agreed to.

Once the secondment has ended, the employee will then go back to their original place of work, or are free to apply for a position at the seconded property, should a vacancy exist.

Training opportunities may be job specific, or general / for all employees.

Gondwana commits to inform the Mashi Conservancy of any training opportunities that will be offered / open to community members.

The process to be followed will be:

- A written notification of the available training opportunity to be sent to the Conservancy
 - The Lodge Manager is to deliver the training opportunity to the Mashi Conservancy office and the EO or a proxy will sign acceptance and receipt thereof
- Applicants to be given up to a maximum of **4 (four) weeks** to apply.
- Only completed Training Opportunity Application forms with relevant qualifications to be accepted – template of Training Opportunity Application form attached as ANNEX 3
- Local community and Mashi Conservancy members with relevant qualifications to be considered first.
- Lodge Management to collect application forms from the Mashi Conservancy Offices on the date that applications close.
- Short-listing and interviewing procedure to be followed.
- Lodge Manager to inform Mashi Conservancy of candidates that have been shortlisted.
- Only shortlisted candidates to be invited for interview.
- Approval to be gotten from the HR Department.

Affirmative Action Policy (*section 8 of the Gondwana HR policies*)

Introduction

The Gondwana Collection recognizes that past discriminatory laws and practices have resulted in unequal education, employment, training and other opportunities for certain groups of persons, more particularly:

- Racially disadvantaged persons;
- Women; and
- Persons with disabilities

(Jointly referred to as persons from “designated groups”).

The Gondwana Collection commits itself to redressing existing and future inequalities by providing leadership and resources to implement an affirmative action plan in the workplace and to creating employment equity in all spheres of employment.

Principles

Gondwana Collection affirms that an affirmative action plan shall be formulated and implemented in a transparent manner, in line with the principles of the Namibian Constitution and the Affirmative Action as well as the Employment Act.

Gondwana Collection affirms that it will consciously and consistently strive to ensure that persons in designated groups enjoy equal employment opportunities at all levels of employment and that persons in designated groups are equitably represented in its workforce.

Gondwana Collection affirms that it will take all reasonable measures within the workplace to accommodate, physically or otherwise, persons with disabilities.

Strategies

Gondwana Collection commits itself to applying the following strategies in realizing the objectives of its affirmative action plan:

- The identification and elimination of possible employment barriers, as and when they arise, against persons in designated groups. This process will apply equally to existing and prospective employees.
- To achieve this, Gondwana Collection will ensure that existing and future training programmes are guided by principles of advancing those employees previously disadvantaged as a consequence of social, economic, gender or educational imbalances arising out of discriminatory laws or practices;
- Afford preferential treatment in employment decisions to suitably qualified persons from designated groups. This will be achieved by giving preferential treatment to suitably qualified persons of designated groups in filling positions of employment or promotions.
- Where two or more suitably qualified candidates from designated groups qualify for a position of employment or promotion, by giving priority to a candidate who is a Namibian citizen and if all candidates are Namibian citizens, to the candidate who is the highest qualified.
- Train a Namibian citizen as an understudy of every non-Namibian citizen employed by the Gondwana Collection, as set out in subsections 19(3) and (4) of the Act.

- Generally and as the need arises, formulate and implement positive measures to ensure equal employment opportunities for all employees and especially for those persons in designated groups.
- Creating a safe and convenient working area for persons with disabilities.
- Assisting in as far as is possible with the acquisition of specialized equipment to enable persons with disabilities to achieve their tasks with efficiency.
- Endeavour to create an atmosphere of respecting and understanding in relation to persons with disabilities by means of educating all employees in this regard.

Responsibility

- The Manager will be responsible to develop and implement the affirmative action process. She/he will be assisted by an affirmative action advisory committee to liaise on all aspects relating to the implementation and amendments to the affirmative action policy and plan.
- The Affirmative Action Advisory Committee shall consist of four employees, three of whom shall be representatives of the designated groups.
- The Advisory Committee and the Manager shall meet at least once every quarter and minutes of such meetings shall be distributed to all employees.
- Regular consultations will be held to monitor the affirmative action process and to submit regular progress reports to the Human Resources department
- All employees will be made aware of the affirmative action policy.
- The Manager will ensure that there is a regular flow of information to all employees and that feedback is elicited at all times.
- Gondwana Collection recognizes that the formulation and existence of an affirmative action plan is a dynamic process which should involve all employees and will encourage employees to participate fully in the process.

P. K. S

III. To develop a framework for regulating Social Responsibility efforts, assistance programmes, donation and community welfare efforts

Assisting in the organization of HIV/AIDS and General Health and Wellness programmes for the community surrounding Namushasha River Lodge.

1. Work with the network of HIV/AIDS and General Health and Wellness institutions such as ELCAP, CAN and the local clinics to organize a locally developed outreach programme in keeping with cultural traditions.
2. Execute vii. (1) and other HIV/AIDS related matters in accordance with section 9 of the Gondwana HR policies:

HIV/AIDS Policy

(Based on the labour Act, 2007, Section 5)

9.1 General Statement

Gondwana Collection Namibia recognizes the seriousness of the HIV/AIDS epidemic and its impact on the workplace. The Company supports national efforts to reduce the spread of infection and minimize the impact of the disease.

The purpose of this policy is to ensure a consistent approach to the prevention of HIV/AIDS among employees and their families, and to the management of the consequences of HIV/AIDS, including the care and support of employees living with HIV/AIDS. It is in compliance with existing laws on discrimination, working conditions, safety and health.

While the Company recognizes there are circumstances unique to HIV infection, this policy rests on the principle that HIV infection and AIDS should be treated like any other serious condition or illness that may affect employees. It takes into account the fact that employees with HIV may live full and active lives.

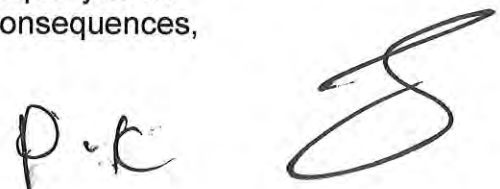
The Company's commitment to maintaining a safe and healthy working environment for all employees is based on the recognition that HIV is not transmitted by casual contact.

9.2 Company commitment

Employees or job applicants will not be discriminated, victimized or harassed on any grounds, including HIV/AIDS status, by any person.

9.3 Specific Provisions

The protection of the rights of those affected by HIV/AIDS, Company disciplinary and grievance procedures shall apply equally to all employees. No employee should suffer adverse consequences,



whether dismissal or denial of appropriate alternative employment opportunities, merely on the basis of HIV infection.

9.4 HIV Testing

The Company rejects HIV testing as a prerequisite for recruitment, access to training or promotion. However, the company promotes and facilitates access to voluntary confidential testing counselling (peer educators, support groups) for all employees.

The Company recognizes the sensitive issues that surround HIV/AIDS and undertakes to handle matters in a discreet and private manner. Where an employee with HIV/AIDS has revealed his or her status to management, the Company will keep the status of such person confidential. However in line with the Company philosophy on the virus, the employee will be encouraged to be open about his or her HIV status.

9.5 Information & Education & Awareness

The Company recognizes the importance of involving employees in the planning and implementation of awareness, education and counselling program, especially as peer educators and counsellors.

Appropriate awareness and education programs will be conducted to inform employees about AIDS and HIV which will enable them to protect themselves and others against infection by HIV. Some of these will include the families of employees and the local community.

Awareness Training & Education shall be arranged for key staff including managers, supervisors, and personnel officers (both male and female), peer educators and support groups.

The company will accommodate the Education & Training during working hours where necessary. (ELCAP Group Training)
Peer Educators group sessions are supported with materials and venues.

9.6 Care and support for staff

It is in the interest of both enterprise and employees if infected individuals are assisted to remain at work as long as possible.

The Company will treat employees who are infected or affected by HIV/AIDS with empathy and care. The Company will provide all reasonable assistance which may include counselling, time off, sick leave and information regarding the infection and its effect.

9.7 Work performance

Employees may continue to work as long as they are able to perform their duties safely and in accordance with accepted performance standards. If an employee with AIDS is unable to perform his or her tasks adequately, the manager or supervisor must resolve the problem

P.K. 

according to company's normal procedure on poor performance/ill health.

9.8 Benefits

Employees living with HIV/AIDS will be treated no less favourably than staff with any other serious illness/condition in terms of statutory and company benefits, workplace compensation, where appropriate, and other available services.

9.9 Healthcare

The Company will help employees living with HIV/AIDS to find appropriate medical services (New Start) in the community, as well as counselling services and self-help groups if required.

9.10 Risk Management, Health and Safety, First Aid and Injury on Duty

The Company shall ensure a safe and healthy working environment for all employees, including the provision of the necessary protective equipment and the implementation of and training in the implementation of proven precautions to prevent transmission of the virus in the Company.

9.11 First Aid

All first aid boxes must contain disposable gloves for use by first aid attendants when treating fellow employees or guests.

Under no circumstances should people (staff or guests) be treated without using these gloves.

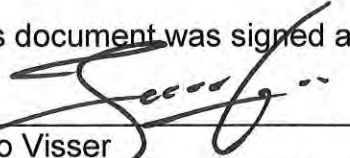
Staff should at no time expose themselves to situations where they could become infected with HIV and must always take the necessary precautions.

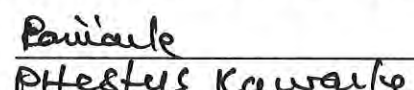
If a crisis situation should develop without ways and means whereby a staff member can protect himself, the situation should be left to professionals to handle.

9.12 Employee Responsibility

- Take responsibility for your own health
- Participate in the program
- Own the program
- Respect the privacy and confidentiality of those living with HIV and/or AIDS
- Respect the rights of those people who are not HIV Positive.

This document was signed at NAMUSHASITA on 23 March 2017


Jaco Visser
Gondwana Collection Finance Director


Phesutso Kauraike
Mashi Conservancy

P.K. 



GONDWANA NAMUSHASHA COMMUNITY DEVELOPMENT PROGRAMME

Application for project

APPLICANT'S DETAILS

Name(s) and initials:

Organisation:

Address:

Tel:

e-mail:

PROJECT DETAILS:

Project Title:

Project Place:



1. What is the Problem or Opportunity that this project will address?

2. When this project has been done, what will be different? How will people benefit?

3. Who will benefit from this project (i.e. number of people - men, women, children, pensioners, orphans, etc)?

4. What are the Activities that will be undertaken to achieve the required outcomes, and who will undertake them?

Activities	Who
1.	
2.	
3.	

4.	
5.	

5. If there is any equipment required for this project, how will it be looked after, maintained and kept safe, i.e. who will be responsible, who will check that the responsible person is doing a good job, etc?

6. What will the project cost, and what will be the contribution from the community?

Estimated total project cost N\$ _____

Contribution from the community: _____

.....
Signature of applicant

.....
Place

.....
Date

.....
Signature of witness

.....
Place

.....
Date



General notes to bear in mind

- Projects that have not filled out and signed the “Application for Project” form will not be considered.
- The *Gondwana Namushasha Community Development Programme* supports two broad categories of projects: (a) **social development projects** that address problems within the community, e.g. limited access to clean water, poor sanitation, no school materials for orphans, no waste management systems, and (b) **economic development projects** that address opportunities, e.g. enterprises such as craft making and marketing, improved agricultural yields, clothes making.
- Each project should be carefully discussed at community level to ensure that it is an agreed priority project. There is then a 6-step approach to planning the project, which answers the following questions:
 - ✓ What is the problem or opportunity that this project will address? Each project or opportunity must have a separate project application form.
 - ✓ When this project is completed, what will be different? How will people benefit?
 - ✓ Exactly who will benefit – give details of numbers of people / households and whether it will be adults, children, pensioners, women, men, orphans, etc?
 - ✓ What activities will be undertaken to fully address the problem or opportunity and who will do each activity?
 - ✓ If there is equipment required for the project, e.g. water tanks and solar panels, how will these be looked after and kept safe?
 - ✓ How much the project cost, and what will be the community’s contribution? This can be in cash or kind.

Selection criteria

Preference must be given to projects that:

- ✓ benefit communities neighbouring Namushasha River Lodge
- ✓ address priority social problems and viable economic opportunities
- ✓ have broad community benefits are endorsed by the broader community
- ✓ are catalytic and could attract in-kind and/or co-funding from government and funding agencies



- ✓ promote gender equality
 - ✓ invest in young people
 - ✓ are environmentally sustainable
-



GONDWANA
COLLECTION
NAMIBIA

Tel: +264 61 427 200

Fax: +264 61 251 863

PO Box 80205

42 Nelson Mandela Avenue,

Windhoek, Namibia

info@gondwana-collection.com

www.gondwana-collection.com

Gondwana || Namushasha Job Advertisement

Job Title:	
Closing date / Urgency:	
Tier level / Salary level:	
Permanent / Temporary / Casual:	

Job description:

The Position

(Broad description of position – can get it from HO):

Scope and general purpose: (for example)

- Recognize the uniqueness of Gondwana Collection and position the lodge as part of a collection of first class lodges in Namibia, outlining its individual character.
- Recognize the Gondwana Philosophy regarding people, finance and natural resource management as guideline for your management decisions.
- Act sensibly and responsibly in case of emergencies and situations of crisis regarding issues of health, safety and staff grievance.

Requirements (Example)

- A passion to host our guests
- Fluent in English. Afrikaans and German will be an advantage
- Minimum 3 years experience in Tourism / hospitality sector
- Education background in the field of Hospitality Studies will be an added advantage
- Guest Relations experience
- Computer Skills
- Technical background will be an advantage
- A team player

Please hand in your completed application form at:

The Mashi Conservancy Management Offices

Kongola, Namibia

PO Box 8061, Ngweze, Namibia

Contact number: 066 252518



Tel: +264 61 427 200
Fax: +264 61 251 863
PO Box 80205
42 Nelson Mandela Avenue,
Windhoek, Namibia
info@gondwana-collection.com
www.gondwana-collection.com

Gondwana || Namushasha River Lodge Job Application Form

Name:	
Surname:	
ID/Passport number:	
Date of Birth:	
Conservancy:	
Village of Origin:	
Village of Residence:	
Male / Female:	
Contact number:	

Position applied for:	
-----------------------	--

School attended:	
Highest grade:	
Other qualifications or courses:	

Work Experience:	
References:	1.
	2.
	3.

Signed by _____ (name) on this day _____ (date) at _____.

Signature of Applicant



Tel: +264 61 427 200
 Fax: +264 61 251 863
 PO Box 80205
 42 Nelson Mandela Avenue,
 Windhoek, Namibia
 info@gondwana-collection.com
 www.gondwana-collection.com

Gondwana || Namushasha River Lodge Training Application Form

Name:	
Surname:	
ID/Passport number:	
Date of Birth:	
Conservancy:	
Village of Origin:	
Village of Residence:	
Male / Female:	
Contact number:	

Training course applied for:	
-------------------------------------	--

School attended:	
Highest grade:	
Other qualifications or courses:	

Work Experience:	

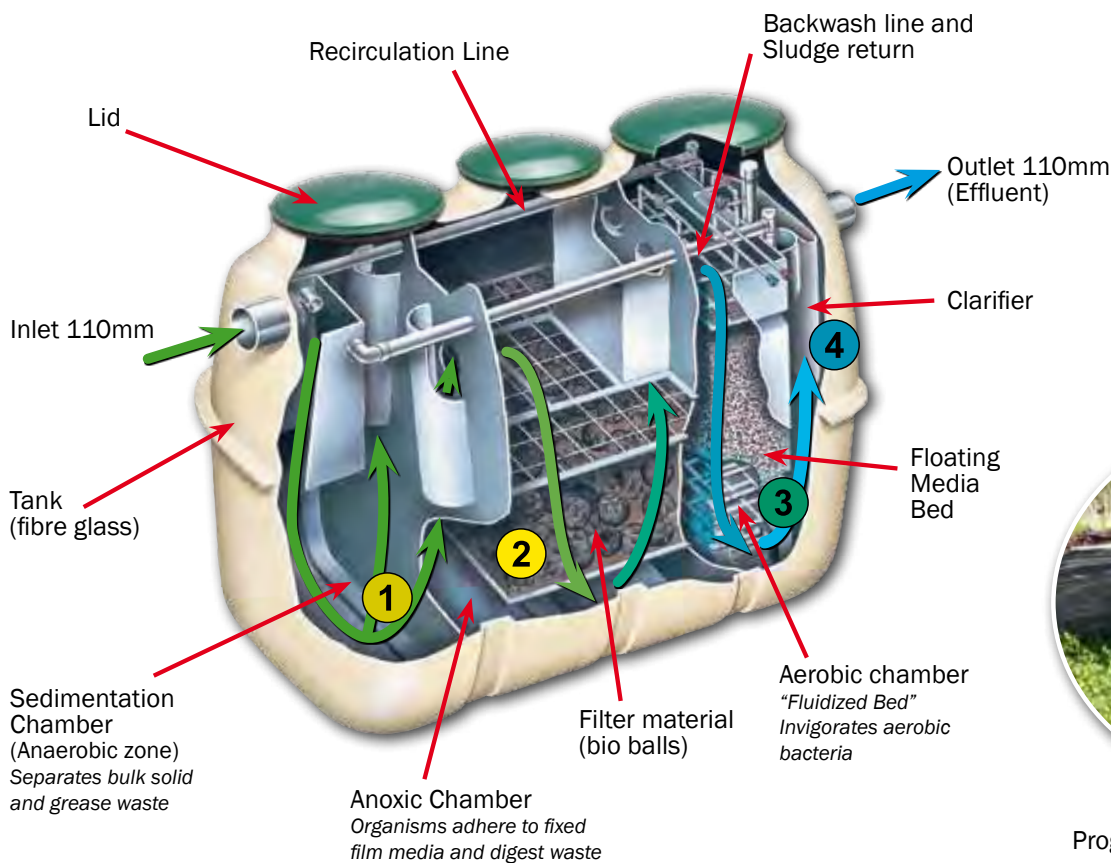
Signed by _____ (name) on this day _____ (date) at _____.

 Signature of Applicant

APPENDIX 8 - Fusion Series Waste Water Treatment System

Fusion Series Waste Water Treatment

The Fusion is a factory-built activated sludge sewer treatment plant.



Control Panel

- Monitors the system 24/7
- Warning light and siren will notify user if a problem occurs



Programmable Blower

Feeds oxygen to aeration chamber and powers recirculation/sludge return

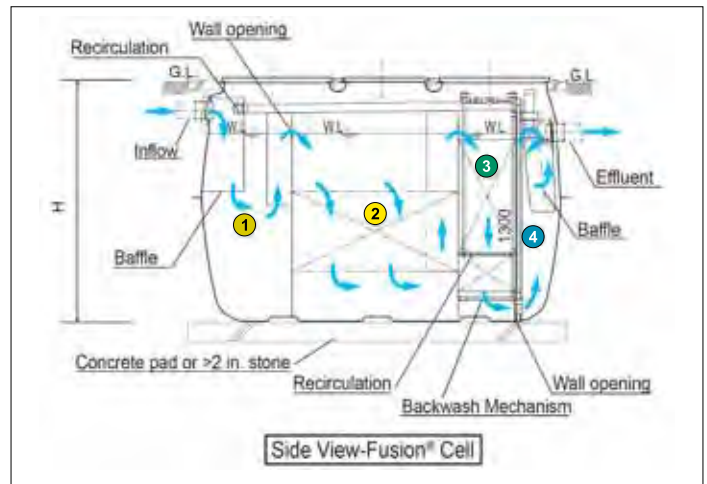
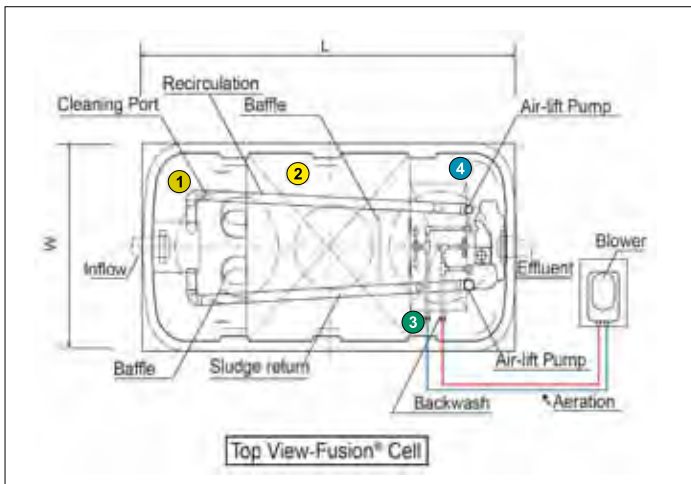


Clarus Fusion ZF2400 final grade, Barloworld Maputo



ZF 600

- Low power consumption
- Single tank construction
- Tank installed completely underground
- Low noise factor
- Easy installation
- Low maintenance
 - No downtime during service / maintenance
 - Alarm panel – self monitoring
 - Full nitrification / de-nitrification cycle
 - Effluent meets South African DWA General Std
 - Small Footprint
 - Solar options available



Application:

- Residential sewer
 - Commercial wastewater secondary treatment
- Waste strength reduction:
- | | |
|----------|-----|
| <75 mg/l | COD |
| <25 mg/l | TSS |

Material:

All materials are noncorrosive in the septic environment.

Easy to install or retrofit:

Fusion Series Treatment Systems are compact, efficient, and designed to be installed in a typical residential/commercial environment.

Proven Technology:

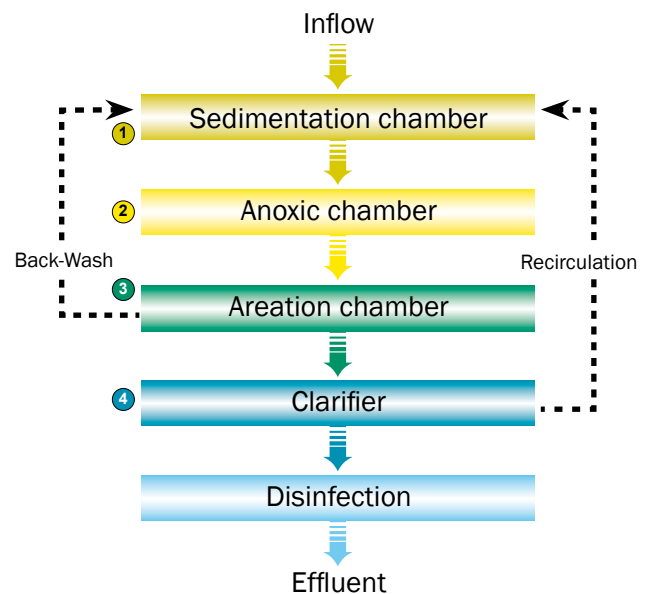
Fuji Clean Co., LTD initially developed their wastewater Jokaso treatment system in 1969. With decades of refinement, the Clarus Fusion Series Treatment Systems have been optimized to treat residential waste.

Maintenance:

System will be provided with maintenance contract information. Maintenance provider is dependent upon geographical location. 6 Montly service required.

Disinfection:

Chlorine / UV / Ozone



Available models

Clarus Model	Litres per day Black & Grey Water Combined	Number of people (based on 150 litres per person per day)	Length (mm)	Width (mm)	Height (mm)	Power consumption (Watts) Excluding disinfection
ZF-450	1700	10	2000	1100	1600	60
ZF-600	2250	15	2500	1250	1700	60
ZF-800	3000	20	2500	1450	1850	60
ZF-1120	4200	27	3600	1650	1950	120
ZF-1440	5400	25	3750	1800	1950	124
ZF-2000	7500	50	4150	1950	2200	160
ZF-2400	9000	60	4200	2150	2120	261
ZF-3200	12000	80	4600	2250	2400	285
ZF-4000	15000	100	4750	2450	2550	336

Aquest

Cell: 082 564 9508
cvanschajk@aquest.co.za
www.aquest.co.za

APPENDIX 9 – Letter of support from the Mashi Conservancy

Mashi Conservancy
P.O.Box 8061
Mayuni Post Office
Namibia

Gondwana Collection
Namushasha River Lodge
P.O. Box 80205
Windhoek, Namibia

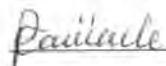
To whom this may concern

Establishment of Houseboat Activity on Kwando River as part of Namushasha River Lodge operation

The Mashi Conservancy hereby grant it's consent and support to the Namushasha River Lodge for the establishment of the proposed houseboat Activity on the Kwando River adjacent to the Namushasha River Lodge.

As discussed at the last Joint Venture Meeting between the Mashi Conservancy and the Namushasha River Lodge held at Namushasha River Lodge on the 23rd of March 2017, we approve of this project and believe it will bring social benefits to the community in terms of employment and increased financial investment into the Mashi Conservancy.

Yours sincerely,



Mashi conservancy management



APPENDIX 10 - Environmental Practitioners CVs



ENVIRONMENTAL
COMPLIANCE CONSULTANCY

Stephan Bezuidenhout

ENVIRONMENTAL CONSULTANT &
PRACTITIONER



Hello! :)

ABOUT ME

Name

Jacobus Stephan Bezuidenhout
- But you can call me Stephan -

Born

11 April 1989

Phone

+264 81 262 7872

Email

stephan@eccenvironmental.com

Website

www.eccenvironmental.com

Contact me!

How to reach me!

+264 81 262 7872 

Stephan.bezuidenhout 

+264812627872 

Stephan Bezuidenhout 



Education & Qualifications

University of Pretoria
South Africa
2012

Bachelor of Applied Science Hons -
Environmental Management & Analysis

University of Stellenbosch
South Africa
2008

Bachelors in Geography and Environment

Additional Qualifications:

- EcoNomics Sustainable Design Training Programme – Worley Parsons Int.
- Snake Bite and Snake Handling
- Level 1 & 2 First Aid
- Industrial Environmental Compliance

Publications:

"Some ecological side-effects of chemical and physical bush clearing in a southern African rangeland ecosystem" in the South African Journal of Botany. Published on 14 Aug 2015.



Experience & Work History

Current

Managing Director

Environmental Compliance Consultancy
Providing professional consulting services to clients in Namibia with particular focus on approvals, ECCs, reporting and compliance.

- ECC Approvals
- Mine Closure Plans
- Rehabilitation
- Pipeline projects
- Cultural Change programmes
- IMS (ISO14001 and 18001)

Feb 2015 - Current ENVIRONMENTAL CONSULTANT & PRACTITIONER

Clients in SA & Namibia

In February 2015 an opportunity came about to launch my own business, Environmental Compliance Consultancy (ECC). During this time I have worked alongside Savannah Environmental (Pty) LTD and other consultancies to deliver several environmental projects including:

- Abengoa Solar SA, Kaxu Solar One (100MW) Concentrating Solar Plants (CSP) Trough Environmental Control Officer during commissioning and rehabilitation phases Northern Cape Province, South Africa



ENVIRONMENTAL COMPLIANCE CONSULTANCY

Stephan Bezuidenhout

Managing Director

+264 81 262 7872

References

Feel free to ask the boss :)

SALOME BEESLAAR

Environmental Practitioner

Pr.Sci.Nat: 400385/14

ESCA COETZEE

Environmental Scientist

Sasol Technology

PHIL BARKER

Pipeline Construction Superintendent

Worley Parsons

Or ask those who have worked for me?

Michael Moreland

Environmental Scientist

CSP Solar Energy Projects

Professional Associations

- South African Institute of Ecologists and Environmental Scientists (SAIE&ES)
- Environmental Assessment Practitioners Association of Namibia (EAPAN#172).
- Member of FSC Environmental Chamber

Fun Facts:

- Keen fisherman
- Passionate Hunter & Conservationist
- 21ft vessel certified skipper
- Summated Kilimanjaro
- Have survived scorpion stings and a snakebite!
- Did I mention I love camping?

Words I live by:

**'Do what makes you happy
the rest will follow'**



Experience & Work History

Feb 2015 - Current Continued...

- **Konkoonsies II PV Solar Energy Facility, On-site substation and a 132kV power line** Environmental Assessment Practitioner during EIA process Northern Cape Province, South Africa
- **Abengoa Solar SA Paulputs CSP (Pty) Ltd. 150 MW CSP Tower** Environmental Assessment Practitioner during EIA Process Northern Cape Province, South Africa
- **Abengoa Solar SA, Xina Solar One (200 MW) CSP Trough** Environmental Control Officer during construction phase. Northern Cape Province, South Africa
- **Abengoa Solar SA, Khi Solar One (50 MW) CSP Tower.** Environmental Control Officer during commissioning and rehabilitation phases. Northern Cape Province, South Africa for Abengoa Solar
- **Isondlo Project Support (IPS) (Pty) Ltd.** Soil Remediation and commissioning report of NGALA Camp. Gauteng, South Africa
- **Berekisanang Empowerment Farm.** Annual external Water Use Licence audit and 70 hectare agricultural development. Northern Cape, South Africa.
- **Ebeneaser Empowerment Farm.** Annual External Water Use Licence Audit. Northern Cape, South Africa

Jan 2013 - Feb 2015 Environmental Coordinator

ROMPCO PIPELINE – Worley Parsons
Mozambique and South Africa

- Experience was gained in the oil & gas and construction industries. The pipeline length was 127km. Application and obtaining of environmental permits encompassed a large section of the role. The position also required the management of an on-site environmental team. It was required to meet with different governmental departments and build relationships with key individuals to allow swift communication and permit a platform for transparency. Ensured compliance with National, best neighbouring as well as IFC legislation and standards. Review and submission of monthly reports and monthly audits was also a requirement of the position.

Jessica Mooney

Environment & Safety Specialist



Hello! :)

ABOUT ME

Name
Jessica Mooney

Born
24 October 1984

Phone
+264 81 653 1214

Email
Jessica@eccenvironmental.com

Website
www.eccenvironmental.com

Contact me!

How to reach me!

+264 81 653 1214 

Jessica.mooney7 

+264 81 653 1214 

Jessica Mooney 



Education & Qualifications

**Federation University
Australia
2003-2006**

**Additional
Qualifications**

Bachelor of Applied Science -Environmental
Management

Management Systems Leadership
ICAM - Incident Cause Analysis Method
Certificate II in Metalliferous Mining core safety
and risk management
Certificate III in Mine Emergency Response
& Rescue
Level 3 – HLTF402B Apply Advanced first Aid
Emergency Rope Rescue
Level 2 - 21593VIC First Aid level 2
Bonded Asbestos Removal >10m2
Leading and Managing People –
Brisbane North Institute of TAFE



Experience & Work History

Current

Environment and Safety Specialist

Environmental Compliance Consultancy
Providing professional consulting services to clients in
Namibia with particular focus on approvals, ECCs,
reporting and compliance.

- ECC Approvals
- Mine Closure Plans
- Rehabilitation
- Pipeline projects
- Cultural Change programmes
- IMS (ISO14001 and 18001)

Nov 2013 - Feb 2016 Group HSE Manager

Weatherly Mining Namibia
An exciting role covering the breadth of two operational
underground mines (Otjihase and Matchless) and the
construction of a new open pit mine (Tschudi) working
for Weatherly Mining in Namibia, Africa.

- Managed company's SHEQ portfolio
- Full scale construction of new greenfield mine into
operational copper mine
- Reduced LTIFR by 90% from 23.1 to 2.4 in 22
months!
- Implemented integrated management system
- Approvals, ECC renewals and EMPs
- Established the first mining environmental forums
in Namibia
- Implemented SAFE COPPER cultural change
programme



ENVIRONMENTAL COMPLIANCE CONSULTANCY

Jessica Mooney
Environment & Safety Specialist
+264 81 653 1214

References

Feel free to ask the boss :)

MR CRAIG THOMAS

Managing Director
Weatherly Mining

MR COLIN BULLEN

Managing Director
Imerys (client)

Group Manager Lihir Gold

MR NICK CURREY

Director at Sustainable Mining Strategies

Or ask those who have worked for me?

Ms Asteria Salmon

Worked as Control Room Operator
WMN

Mr. Hermanus Lamprecht

Paramedic Safety Officer

Professional Associations

- Chamber of Mines Namibia
- Women on Boards
- The Chamber of Minerals and Energy of Western Australia Industry Member – Mining, Minerals and Resources

Fun Facts:

- I can deadlift 135kg
- To keep fit I Olympic weight lift
- I run ultra Marathons & the longest run yet the fish river Canyon 65km
- I am one of 6 children - do you think that means 4 of us suffer middle child syndrome?

Words I live by:

**'The journey will bring you
happiest, not the destination'**



Experience & Work History

Feb 2013 - Feb 2014 Environmental Consultant

Ensolve Pty Ltd - Australia

In February 2013 an opportunity came about to launch my own business, Blue Wren Environmental Services.

During this time I have worked alongside Ensolve Pty Ltd to deliver several environmental projects including:

- A mine closure project taking an operating mine site into the rehabilitation and closure phase. This project involved the full development of a mine closure plan, facilitation of the government approvals, stakeholder engagement and technical environmental studies to inform the mine closure plan
- Sustainability reporting in accordance with the Global Reporting Initiative
- Rehabilitation of historic exploration sites and obtaining associated government approvals for relinquishment of bonds.

Jan 2010 - Feb 2013 Site Environmental Manager

Panoramic Resources – Australia

- Brought the site into full compliance with the Environmental Licence within 1 year.
- Managed projects relating to the expansions of the current mine tailings dams including obtaining approvals under the Mining Act 1978 and Environmental Protection Act 1986.
- Managed the environmental and community aspects of three operations; Savannah Nickel Mine, Copernicus Nickel Mine (currently in care and maintenance) and the operations at Wyndham Port
- Responsible for the environment, sustainability and social reporting portfolio
- Developed productive working relationships with local government environmental agencies and non-government agencies, which assisted with the approvals process.
- Developed strategies for the recruitment and retention of local Indigenous personnel

Jan 2007 - Jan 2010 Environmental Systems Coordinator

Lihir Gold Limited – Australia

Working on site to provide technical environmental and community advice to ensure all regulatory and licence obligations were met or exceeded

- Regulatory Approvals (State and Federal Government)
- Environment and social aspects of the international cyanide management code
- Operational budgeting and bond management for mine closure
- Compliance with the legislative framework
- Community engagement