REVISED AND UPDATED ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR THE EXISTING & OPERATIONAL HIPPO LODGE & CAMPSITE DEVELOPMENT IN IMUKUSI COMMUNAL AREA, ZAMBEZI REGION



Assessed by: NYEPEZ CONSULTANCY CC Renewal of Environmental Clearance for: Mr. Günter Hertz & Mrs Beate Schwippert Po Box 35, Katima Mulilo <u>beate224@gmail.com</u>



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1. INTRODUCTION

Proponents Mr. Günter Hertz & Mrs Beate Schwippert -of Hippo Lodge and Campsite development established and developed the Lodge in the year 2017 by establishing a tourism establishment of a river lodge on the banks of the tributary of the might Zambezi River at Imukusi Communal area on a 6.3 ha within the Katima Constituency, in Zambezi Region. In the same year they also applied for an Environmental Clearance Certificate through an Environmental Practitioner called Nyepez Consultancy cc. however the period of the clearance has lapsed, hence the application for renewal.

The intention for renewal of the clearance certificate is for the continuous operation and existence of the development to run it in a profitable, eco-friendly and sustainable way. The aim is to follow the Principles of Ecotourism and offer a tourism attraction that conserves the environment and improves the well-being of local people.

1.2 MAIN OBJECTIVE

- To apply for the renewal of the Environmental Clearance Certificate (ECC) for existing and operating Hippo Lodge & Campsite Development In Imukusi Communal Area, Zambezi Region, a clearance that was obtained in 2017 (the initial first ECC was acquired by same EAP, Nyepez Consultancy cc on behalf of the proponent and developer Mr. Günter Hertz & Mrs Beate Schwippert
- To provide a brief background of the existing project and its proponents;
- Provide the Renewed, Compliant and updated Environmental Management Plan for the project and explain any structural physical amendment, as well as provide for environmental impact mitigations for such new developments.
- Explain the need for the project; The enforcement and Compliance of the EMP during the operational course and decommissioning of the project;
- The monitoring and evaluation of the project in line with the environmental health protocols outlined in the EMP

1.3 THE LODGE & CAMPSITE ACTIVITIES

The Hippo Lodge & Campsite was established for tourism and accommodate purposes. The following facilities were established on the site.

 A Central Main Area with Bar, Lapa, Kitchen, Storage, Office and Deck over the Zambezi River

- 20 Camp Sites, each place with electricity and water supply. Shower and Toilets provided in a central ablution block, as well as washing and kitchen facilities. In a later stage the Camp Sites can be extended.
- 10 Bungalows with en-suite bathroom, fully equipped
- Two Water Camper Boats and three game viewing boats to offer day cruises or overnight safaris on the Zambezi River up to Chobe. Beside the extraordinary bird watching opportunities, the lodge is offering a special wilderness adventure with different species of game (Springbok, Blesbok, Impala) to roam freely near the Lodge and the Guests Accommodation. The whole portion of land will is fenced with a proper game-proof fence.

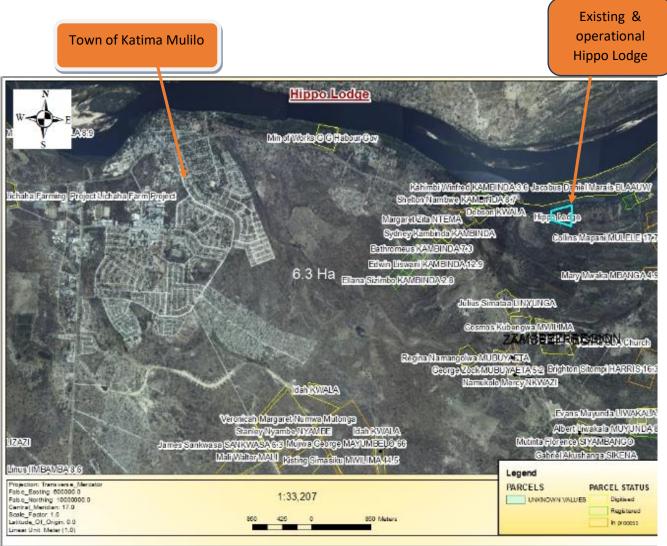
1.4 AIMS OF THIS STUDY

The aims of initial scoping submitted was to:

- Comply with Namibia's Environmental Assessment Policy, Environmental Management Act (2007) and its February 2012 EIA Regulations;
- To provide for a compliant and updated Environmental Management Plan for activity monitoring and evaluation purposes
- Consult all Interested and Affected Parties (I&AP's) to ensure that their input is taken into account;
- Review the legal and policy framework and its relevance to this project;
- Describe the biophysical and socio-cultural environment of the project to determine its sensitivities and suitability;
- Identify and assess impact related to the construction, operation and later decommissioning of the Lodge & Campsite and associated infrastructure and propose suitable mitigation strategies.
- In 2017 Nyepez Consultancy cc compiled an Environmental Scoping Report and Environmental Management plan in line with the 2012 EIA Regulations of the Environmental Management Act (2007) and terms of reference was submitted. The reports were approved and an initial Environmental Clearance Certificate dated 28 November 2021 issued. NB: Note that the first approval was issued through the old ministerial manual approving system, which therefore means the expired Clearance Certificate is not found online but filled in the Ministry's registry.

1.5 LOCALITY

The existing and operational Hippo Lodge & Campsite is located ± 6 km east part of the town of Katima Mulilo alongside the mighty Zambezi River, located at the verge of the banks of the Zambezi River. The site is also situated nearest and/or adjacent to an already existing Lodges called (Katima House boat safari Lodge & Hippo Recreational resort), which are land uses and/or developments developed on the banks of the Zambezi River. The size of the site Lodge & campsite area is ± 6.3 hectares.



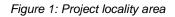




Figure 2: Project site area, Hippo Lodge & Campsite development

1.6 PROJECT ECONOMICS & CONTINOUS OPERATIONAL ACTIVITIES

The objectives of establishing and developing the Hippo lodge and campsite was to ensure the economic upliftment of local community of Imukusi, the Zambezi region and the entire country of Namibia. To create employment opportunities which will add to the quality of life community members, to provide socio-economic support to both communities and the Mafwe traditional authority, to make and market the Zambezi region locally, regionally and internationally as an tourism hub for potential tourists and/or potential; investors that would want to invest in tourism activities in the country.

Project	Potential Impacts
Construction	No construction activity - undertaken as the project is operational. the construction was already completed in 2017
Decommissioning	Nuisance dust generated from demolition
	equipment and general decommissioning
	activities

1.6.1 Initial Scoping Identified issues & mitigation measures

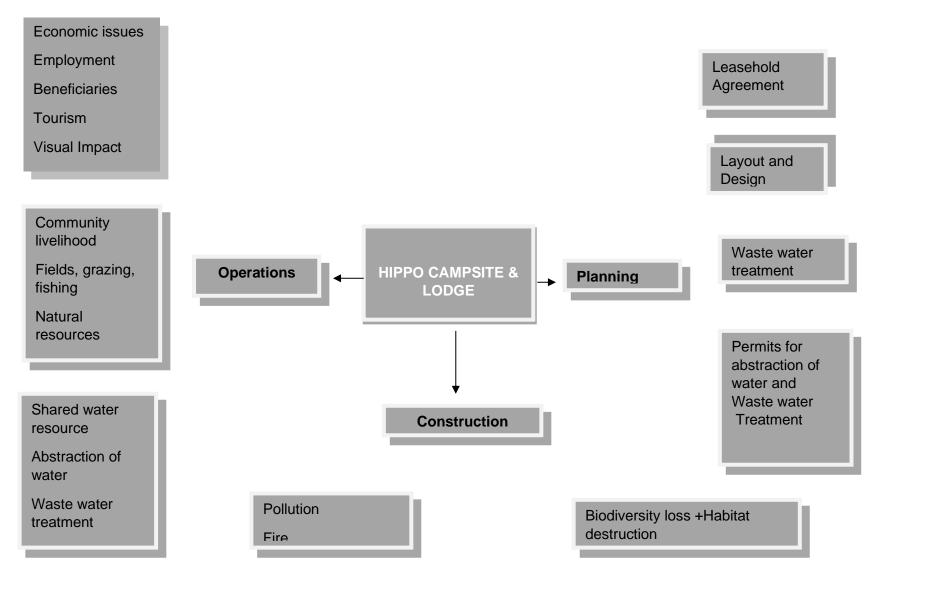


Figure 3: Initial Scoping Identified issues & mitigation measures

2. LEGAL AND REGULATORY REQUIREMENTS

The Namibian Environmental Management Act (Act No. 7 of 2007) promotes the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment. With regard to managing ambient air quality in a sustainable way and limiting impacts, health-based ambient standards, emission standards, and ambient monitoring are considered the most appropriate approaches.

3. IMPACT ASSESSMENT

3.1 Identification of key impacts

Project components that may have impacts on sensitivities and potential impacts related to development and infrastructure are listed in Table below':

Infrastructure and	Sensitivity	Potential Impact of project on
services		infrastructure and services
Layout & design	"sense of place"	Visual intrusion
	compatibility with existing	
	character of landscape	
Access to the site area	Conditions of existing	Increased number of vehicles &
	access road	boats
	Road surface	Maintenance of the road
	Safety of children &	Increase dust & pollution
	livestock of nearby village	
Water resources	Water from Zambezi	Increased demand on water
	River, No Abstraction	resources
	permit needed as a result	
	of low amount per cubic	
	litre	
Sewage disposal	Distance from the river	Pollution of ground water and open
	Constructed waste water	water controlled and prevented
	treatment facilities (septic	
	tanks) according to the	

Table 1: impacts on sensitivities and potential impacts

	effluent	discharge	Waste	water	trea	tment	facilities
	standard form	DWAF	conform	ning	to	envir	onmental
			standar	ds			
Electricity services	Solar energy r	not sufficient	Increas	ed dem	nand	of pow	er supply
			by				
			extensio	on of p	ower	throug	h solar &
			generat	tor			

3.2 Methodology for impact assessment

Each of the identified potential impacts was screened according to the set of questions below. The list of impact further discussed in this section all resort under the "YES" answer, namely those which fall within the scope of the development and the responsibility of Hippo Lodge. No issues falling outside the scope of this development were identified during the process and the information available was deemed sufficient to make an assessment and recommendations. All potential impacts were and are addressed through the proper implementations. All potential impacts are addressed through the proper implementation of the ESMP. No further specialist investigations are therefore required.

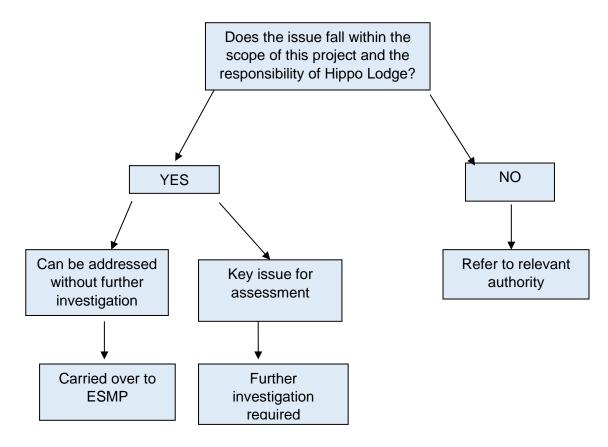


Figure 4: screening process for identifying key impacts

Table 2: Criteria for the air quality assessment

Aspect	Scale	Definition		
	Site specific	Limited to the facility		
Extent	Local	Limited to within a radius of 15 km of the site		
	Regional	Limited to within a radius of 100 km of the site		
	National	Limited to Namibia		
	International	Extends beyond Namibia		
Duration	Very short term	Limited to 3 days		
	Short term	3 days to 1 year		
	Medium term	1 to 5 years		
	Long term	5 to 20 years		
	Permanent	Beyond the lifetime of the process		
	No lasting effect	Predicted ambient concentrations are well below		
		WHO ambient guidelines and no complaints are		
		received.		
	Minor effect	Predicted ambient concentrations occasionally		
		exceed WHO guidelines in sensitive areas and		
		complaints are rarely received.		
Intensity/ Magnitude	Moderate effect	Predicted ambient concentrations frequently		
		exceed WHO guidelines in sensitive areas and		
		complaints are often received.		
	Serious effect	Predicted ambient concentrations always exceed		
		WHO guidelines in sensitive areas and complaints		
	· · · · ·	are always received		
Probability	Improbable	Impacts are improbable		
	Possible	Impacts may possibly occur		
	Probable	Impacts will probably occur		
	Highly	Impacts will definitely occur		
	probably/definite			
0	Improbable	Impacts are improbable		
Status	Positive	Project will lead to an improvement in current air quality		
	Negative	Project will lead to a deterioration in current air		
		quality		

Degree of	High	Good data and proven techniques are used	
confidence	Medium	Reasonable data and techniques are used	
	Low	Data is poor or limited	
		Good data and proven techniques are used	
Significance	None	A concern or potential impact that, upon evaluation, is found to have no significant impact at all.	
	Low	Any impacts will be localised and temporary. Accordingly the impact is not expected to require amendment to the project design	
	Medium	Impacts of moderate magnitude locally to regionally in the short term. Accordingly, the impact is expected to require modification of the project design or alternative mitigation	
	High	Impacts of high magnitude locally and in the long term and/or regionally and beyond. Accordingly, the impact could have a 'no go' implication for the project unless mitigation or re-design is practically achievable	

3.3 Construction

Consequently, the project will not have any impact from activities of construction as there is no construction to be undertaken. The plant already exists and operational, hence the application for renewal of the Clearance Certificate.

3.4 Operations impact assessment

To fully understand the significance of each of the potential impacts, it is necessary to break each impact down into various categories. The definitions of each of the criteria are contained in Table below:

	Description
Nature	Reviews the type of effect that the proposed activity will have on the relevant component of the environment and include "what will be affected and how"
Extent	Indicates whether the impact will be site specific: local (limit to within 15 km of the area): regional (limited to -100 km radius); national (limited to

Table 3: Criteria used to describe impacts

	the coastline of Namibia); or international (extending beyond Namibia's
	boarders)
Duration	Reviews the lifetime of the impact, as being short (days, <1 month),
	medium (months, <1 year), long (years, <10 years), or permanent
	(generations, or >10 years).
Intensity	Establishes whether the magnitude of the impact is destructive or
	innocuous and whether or not it exceeds set standards, and is described
	as none (no impact); low (where natural/social environmental functions
	and processes are negligibly affected); medium (where the environment
	continues to function but in a noticeably modified manner); or high (where
	environmental functions and processes are altered such that they
	temporarily or permanently cease and/or exceed legal
	standard/requirements).
Probability	Considers the likelihood of the impact occurring and is described as
	improbable (low likelihood), probable (distinct possibility), highly probable
	(most likely) or definite (impact will occur regardless of prevention
	measures).
Degree of confidence	Is based on the availability of specialist's knowledge and other information
in predictions	

The application of the above criteria to determine the significance of potential impact uses a balanced combination of duration, extent, and intensity/magnitude, modified by probability, cumulative effects, and confidence. Significance is described as follow

Table 4: Definitions of the various significance ratings

Significance Rating	Criteria
Low	Where the impact have a negligible influence on the environment and no modifications or mitigations are necessary for the given project description. This would be allocated to impacts of any severity/magnitude, if at a local scale /extent and of temporary duration/time
Medium	Where the impact could have an influence on the environment, which will require modification of the project design and/or alternative mitigation. This would be allocated to impacts of moderate severity/magnitude, locally to regionally, and in the short term

High	Where the impact could have a significant influence on the
	environment and in the event of a negative impact the activities
	causing it, should not be permitted (i.e. there could be a no-go
	implication for the project, regardless of any possible mitigation).
	This would be allocated to impacts of high magnitude, locally for
	longer than a month, and/or of high magnitude regionally and
	beyond.

3.5 Assessment of Impacts

By subjecting each of the potential impacts to the criteria stipulated above, the significance establishment of each impact prior to implementing mitigation measures and then after mitigation measures are implemented. Detailed descriptions of management actions in terms of mitigation measures are contained in the accompanying ESMP.

The process of accessing the significance of each of the possible impacts is contained in the above tables. It must be noted that the impacts described in these tables considers the nature of the potential impact before (pre) and after (post) mitigation as set out in the ESMP.

Although the significance rating of the most of the impacts can be reduced considerably to a "low significance" by implementation proper mitigation measures the proponent however understand that a "low significance" impact exerts pressure on the environment and therefore the proponent intend to go beyond the prescribed mitigation and management measures provided in this report by aiming to improve the environment.

3.6 Cumulative Impacts

Cumulative impacts are the impacts on the environment, which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Cumulative impacts may be positive or negative. The cumulative impacts of this development were identified to be:

- Increased infrastructure development in a protected area containing rare and endangered flora and fauna;
- Increased local resource use (water especially considering the region is experiencing a major drought);
- Increased waste generation (Solid and sewage) Impacts on fauna and flora that cannot be foreseen;
- Increased fragmentation and habitat reduction.

4. ENVIRONMENTAL MANAGEMENT PLAN (EMP) & OBJECTIVES

The main objectives of this EMP, to prepare a detailed and updated action plan for implementation of mitigative measures; to suggest an improve on current preventive and mitigative measures to minimize adverse impacts and to maximize beneficial impacts; To suggest a monitoring programme to evaluate the effectiveness of mitigative measures.

Mr. Günter Hertz & Mrs Beate Schwippert (Hippo campsite & Lodge) have implemented an Environmental Management System (EMS) similar to the ISO 14001 system. An Environmental Management System is an internationally recognised and certified management system that ensures ongoing incorporation of environmental constraints. At the heart of an ISO 14001 EMS is the concept of continental improvement of environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks. An effective EMS is therefore need to include the following factors:

- A stated environmental policy which sets the desired level of environmental performance
- An environmental legal register
- An institutional structure which sets out the responsibility, authority, line of communications and the resources needed to implement the EMS
- Identification of environmental, safety and health training needs

- An environmental program, stipulating environmental objectives and target to be met and work instructions and control to be applied in order to achieve compliance with the environmental policy
- Periodic internal and external audits and reviews of environmental performance and the effectiveness of the EMS.

The section below provides a brief summary of the management of the Hippo lodge development project. Contents of these tables is incorporated into a HSEQ management system. The proponents (Mr. Günter Hertz & Mrs Beate Schwippert) are responsible to assign the responsibilities and ensure that the tasks are executed.

4.1 Construction Phase Management Plan (C-Emp)

The overall goal for the construction phase was to undertake the activities associated with the expansion of the lodge in a way that:

- Ensures that activities are properly managed in respect of environmental aspects and impacts. Protects the natural environment from degradation and harm.
- Ensures the development achieves its positive socio-economic impact.
- Complies with legislation.

4.2 Operational Phase Management Plan (O-Emp)

The key to successful lodge development is good land management. This applies to the nature of the land itself, how biodiversity is protected, managed and maintained. The overall goal for the operational phase is to undertake the activities associated operations of the proposed lodge in a way that:

- Ensures that activities are properly managed in respect of environmental aspects and impacts. Protects the natural environment from degradation and harm.
- Ensures that the development is properly managed in terms of the required biosecurity measures.
- Ensures the development achieves its positive socio-economic impact.
- Complies with legislation, permits and authorizations.

4.1.3 Mitigation Measures during Constructions Phase & Operation

IMPACT	NATURE	EXTENT	MITIGATION MEASURES
Ground water pollution due to drainage	Negative effect on groundwater	Local	 Waste Water generated is used in green-belt development & flushing requirement. Liquid effluents (Sewage) is treated channelled to two (2) septic tanks. The treated recycled effluent is used in flushing, landscaping development and wetting of road, as required. The treated effluent is of a quality suitable for use as flushing and for horticulture for external areas. The following parameters/ site conditions were kept in mind when designing the sewage, water drainage system: Natural slope of the area; Sub-soil water table; Provision of venting arrangement for manholes; Construction of manholes & laying of pipes considering ground condition;

Table 5: Summary Climate, Topography, Soils, Drainage, Surface and groundwater Impact

Solid Waste management	pollution	Site specific	The collection and transportation of the solid waste
			generated during the operational phase of the project
			handles as follows:
			The solid waste generated is collected and segregated
			as biodegradable and non-recyclable/ non-
			biodegradable waste. Biodegradable waste is made
			compost and used in the form of manure in green belt
			development. Non-biodegradable waste is stored
			separately and handed over to the authorized agency
			for its further disposal.
			To minimize littering and odours, waste is usually
			stored in well – designed containers/bins that is placed
			and located at strategic points to minimize
			disturbance. 74.8Kg/day of MSW and 20 Kg/day STP
			sludge is generated during operation phase. STP
			sludge is used as manure for green belt development
Removal of vegetation on	Negative effect due to run off and	Site specific	Removal of soil vegetative cover is kept at minimum
the riverbank	erosion		and is only carried out with absolute necessity. The
			development of the landscape and planting of trees
			and vegetative cover was being carried out after
			construction work.

Biodiversity loss and	Negative effect on biodiversity	Regional	The mitigation measure against changes in the
habitat destruction			topography of the land was geared towards minimizing
			the changes in the natural drainage pattern of the
			surrounding areas. To ensure this, the changes in the
			topography of the land was and is kept at minimum.
			Otherwise, the restoration of the natural drainage of
			the site relating to the surrounding areas should be
			restored after construction
Design and construction	Negative impact on water	Local	Two (2) complimenting septic tanks were developed
of septic tank not	resources		with a high capacity to prevent it from reaching its
conforming to standards			maximum capacity. The chemical was and is usually
			stored in the septic tank to allow fermenting of wastes
			and evaporation breezers to increase evaporation to
			reduce overflow
	Destruction of habitat	Local	Firefighting equipment were installed on the lodge
Fires (Fire Fighting			premises. Selected village community members and
Systems)			staff members of the lodge were trained on fire
			prevention measures and action to be taken fire
			prevention measures should be in place, including the
			deployment of adequate functional extinguishers and
			simple dry sand buckets. The project monitoring
			programme included inspection of safety equipment
			use.

			Additionally, the lodge is protected with firefighting arrangement. A water holding tank for fire hydrant was provided in the premises. The firefighting system was designed by the consultants considering the prevailing standards
Health and safety management	Lodge and workers	Site specific	During the construction period, there were opportunities to increase awareness of health and safety issues and implement appropriate standards of performance. Occupational and environmental health in and around the contractor's camps and facilities should be subject to such scrutiny. It is a requirement that the contractors supervising foremen will have basic First Aid training which is available from hospitals and medical NGOs. There are also plans for coping with emergencies. A fully stocked First Aid kit (and set of emergency numbers) are available at each worksite and workshop. Appropriate safety protection equipment are worn at all workshops, yards and construction sites to conform with national regulations and/or as specified by the Supervising

Human wild life conflict	Negative impact on wildli	fe &	Local	A lethal blade fence was erected and developed
	lodge			around the lodge boundary to avoid conflict of wildlife
				animals and to ensure security of clients and
				customers on the lodge. The lodge is NOT situated in
				corridor for animals hence limited movement of
				animals are observed and expected on the lodge site.
				Additionally, a varsity area of open savannah land was
				made available around the lodge where animals will
				roam freely to access other areas

4.2 ENVIRONMENTAL MANAGEMENT PROGRAMME

Table 6: Environmental Management Plan

ENVIRONMENTAL MANAGEMENT PROGRAMME			
Objective Action/ Description		Timeframe	Responsibility
Minimise the potential for	• A minimum buffer zone of 30 m around all watercourses was	Continuous	Lodge Manager
ground and surface water	established and regarded as No-Go areas for the development.		
pollution	The only exception was the access road.		
	Construction within or near drainage lines took place outside of		
	the rainy season when the flow of the non-perennial rivers was		
	at a minimum		
	• Buildings and other hardened surface infrastructure (including		
	storm water attenuation measures) are placed and located		

	outside of buffered watercourses, sensitive areas and riparian		
	habitat		
	• Minimise petrol, diesel, and oil leaks by allocating a loading		
	zone, which is protected against such leaks. Drip trays were		
	secured and emptied regularly.		
	• No washing of equipment or machinery may occur on the permit		
	site or in the watercourse		
	Water quality monitoring of the river and storm water course was	Monthly	Environmental
	and is implemented		Control Officer
Limit the disturbance and	• Plans were made to leave as much of the natural vegetation	Once Off	Lodge Manager
destruction of vegetation,	intact as possible.		
fauna and habitat	• Vegetation disturbance and removal were and are kept to a	Continuous	Lodge Manager
	minimum and the areas monitored to ensure that areas are		
	exposed for brief periods of time only		
	• Construction activities were and are carefully planned and		
	implemented in such a way that facilitates and aids in the		
	rehabilitation and establishment of plant communities		
	• Keep surrounding vegetation, especially larger trees and		
	shrubs, to create a screen that reduces flood impacts		
-	 Protected trees were marked, their location recorded and e 	Once off	Environmental
			Control Officer
	avoided as best as possible. If any protected species could not		
	be avoided a permit was and would be applied for.		

Protection of Fauna	All effort was made to minimise the disturbance of wild animals	Continuous	Lodge Manager
	on and within the close vicinity of the Lodge site		
	• No trapping, snaring, hunting, fishing or killing of any animal		
	may occur on the Lodge permit site.		
	Ensure that construction personnel are briefed on the potential		
	occurrence of protected faunal species, what they look like, and		
	where they are likely to be found. Personnel were to be		
	instructed that these species are not to be hurt or destroyed if		
	encountered. This applied specifically to the snakes, lizards and		
	spiders, as these are often perceived to be vermin and pests		
	• Developed a procedure for dealing with animals encountered on		
	the site, including dangerous animals and vermin. Where		
	necessary, call in professionals to remove the animals.		
	Personnel were instructed on the presence of dangerous game		
	and the appropriate behaviour and safety upon encountering		
	such game		
	• Disturbed areas were and will be rehabilitated and vegetation		
	planted to resemble the area prior to Lodge, both in terms of		
	vegetation cover and habitat		
Vehicle access	• The access road to the permit area was established before	Continuous	Lodge Manager
	operation commenced.		

	Vehicle access is strictly contained onsite. Vehicles can or may		
	only use designated roads and access points as determined by		
	the and Lodge Manager before operations commence		
Waste Management	 Waste generated on site is disposed of in clearly marked bins. These are emptied daily Domestic/general waste and hazardous waste are separated and bins clearly marked The use of toilets is adhered to. The veldt may under no circumstances be used Temporary drains and berms are required to capture storm water No disposal of raw sewage should occur on or near the site 	Continuous	Lodge Manager
Minimise atmospheric	Exhaust emission control devices are installed on vehicles	Windy days	Lodge Manager
emissions and dust	and/or machinery where practical		
generation	 Handling to minimise the creation of dust. Handling is reduced during windy conditions 		
	Rehabilitation to ensure good vegetative cover which reduces dust	Rehabilitation	Lodge Manager
	creation.	Phase	
Control noise	Operational hours during the construction phase was and is	Continuous	Lodge Manager
	restricted from Monday to Friday between 7am and 5pm, and		
	Saturday between 7am and 1pm. No noise producing activities	Continuous	Lodge Manager
	may take place outside of these hours		
	Noise from workers during the construction phase is controlled.		

	Where possible noise suppression and silencers are applied to
	all construction equipment and vehicles. Construction
	equipment and vehicles are maintained.
	As the Lodge is operational, measures are implemented to
	control levels. This includes no playing of loud music.
Reduce the visual impact	A limit to the number of vehicles permitted access to the site per Continuous Lodge Manager day is enforced.
	Restrict construction activities to daylight hours in order to
	negate or reduce the visual impacts associated with lighting. No
	afterhours construction work or work on weekends or public
	holidays is permitted
	Night-time light sources is directed away from nearby
	communities and farms
	Rehabilitate all disturbed areas, construction areas, roads,
	slopes etc. immediately after the completion of construction
	works
Safety	Construction access, is fenced off to prevent unauthorized Continuous Lodge Manager access
	Correct signage were erected at the main access road and
	entrance of haul road to Lodge areas - includes Lodge
	authorization, access authorization, warning of Lodge activity,
	safety warning signs (protective equipment, fire & medical
	equipment) and contact numbers

No open fires are allowed on site under any circumstances	

5. DECOMISSIONING OF THE PROJECT

Once the project Leasehold years comes to an end, the project will be subject for decommissioning. Although the lease is often subject for renewal and/or extension of the years for lease, Different building materials used for construction of the lodge development will be distributed to different stakeholder's subject to benefits of the project. Example, some building materials such as Tents used for building the chalets, other furniture will be removed from the site and given to the Land Loads as part of the agreement. The small boats will be sold to by the owner to any other interested investor that would want to operate this same project at his allocated land site.

However, any harmful items on the site that will be regarded as such, will be destroyed and will be disposed at a designated Katima Mulilo dumping site where community members have no access due to restriction of the site and can only be accessed with permission from the Katima Town Council.

The site where the lodge is developed will be cleaned and all temporal building materials removed and distributed to community members. The permanent structures as per the agreement with the Landlord will become the property of the Landlord.

6. CONCLUSIONS AND RECOMMENDATIONS

This revised and/or reviewed Environmental Management Plan (EMP)has addressed the key issues as identified in in the initial scoping report and this EMP report and no significant impacts or changes thereof have been identified.

6.1 Conclusion

Tourism has proven itself time and again as a powerful instrument for socio-economic development. Community tourism is an important tool in alleviating poverty and providing alternative livelihoods, especially in Namibia's community areas with a rate of unemployment and the inherent difficulties faced by agriculture in a semi-arid environment.

This specific area has a lot of potential as a tourism destination and there is need for more tourism establishments that do not only provide economic benefits to the communities but also offer socio-economic benefits to the local communities and minimise ecological impacts.

Since the operation project site falls within the Zambezi region which is rated as a second poorest region according to the regional poverty profile (NPC, 2004) the surrounding

communities can only benefit from the proposed lodge in terms of increased long-term quality of life.

As is the case with all tourism destinations in Namibia, "sense of place" is a defining factor. Tourist visit Namibia to experience Africa: unique, unspoilt, pristine Africa. The greatest care should therefore be taken to preserve the ambience, the "feeling" of the site by emerging the proposed development with the existing landscape.

6.2 Recommendations

It is imperative that the mitigation measures as set out in the ESMP be implemented during the planning (layout design) construction and operational phases to prevent unnecessary damage to the natural environment.

The ESMP should be added to all contractors' agreements and be signed by such contractors. The recommendations made in this report places the developer under a legal obligation to ensure that all mitigation measures are implemented and followed through during construction and operation of the lodge.

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REFERENCES

CSIR, 2000. Guidelines for human settlement planning and design. Chapter 9. Water supply

DWAF,2008. Code of practice: Volume 1. Septic tank systems. General guidelines

Legal Assistsnce Centre (LAC) and the advocacy unit Namibia National Farmers Union (NNFU), 2009. *Guide to the Communal Land Reform Act, 2002. Published by LAC, Windhoek*

Mendelsohn, J. El Obeid, S. And Roberts, C. 1997. *An environmental profile and atlas of Caprivi.* Windhoek: Ministry of Environmental and Tourism.

Mendelsohn, J. Jarvis, A. Roberts, C. and Robertson, T. 2002. Atlas of Namibia. A portrait of the land and its people. Published for MET by David Philip.

MET. 1995a. *Wildlife management, utilisation and tourism in communal areas. Policy document.* Windhoek: Ministry of Environmental and Tourism.

MLR, 2006. Operational Manual for Communal Land Boards. Windhoek: Ministry of Lands and Resettlement

NACSO, **2008**.*Namibia's communal conservancies*. *A review of progress and challenges in 2007*. NACSO, Windhoek.

NACSO, 2011.*Namibia's communal conservancies. A review of progress and challenges in 2010.* NACSO, Windhoek.

Simmons, R.E. Barnes K.N., Jarvis, A.M. & Robertson, A. 1999. Important Bird areas in Namibia. research Discussion Paper. DEA, Ministry of Environmental and Tourism.

Tweddle, D. 2009. Integrated Management of Zambezi /Chobe river system –transboundary fishery resource, Namibia/Zambia/Botswana. Final evaluation report. Commissioned by WWF in Namibia, Windhoek, Namibia.

Caprivi Project, Bushfire Management retrieved from: http://www.irdnc.org.na/December 2012

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