Draft Basic Assessment Report

Proposed Expansion of Infrastructure at River Lodge and Drakensig Staff Village In Kapama Private Game Reserve, Limpopo Province

Prepared by:



May 2021

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FOREWORD

This report constitutes the **Draft Basic Assessment Report**, and has been circulated digitally for Stakeholder comment on 19 May 2021.

NuLeaf Planning and Environmental would like to thank all Stakeholders for their participation and input into this process to date. We invite stakeholders to review this draft report and to provide feedback, input, concerns and comments.

All written comments received, including NuLeaf's response to each, will be captured in a Comments and Responses Register, which will be made available to all I&APs and included in the Final Basic Assessment Report for submission to the Limpopo Department of Economic Development, Environment and Tourism (LEDET).

All comments on the Draft BAR must be in writing and must reach NuLeaf by no later than close of business on 21 June 2021.

Please mark all correspondence for the attention of:

Bryony van Niekerk Email: <u>bryony@nuleafsa.co.za</u> Tel: 074 818 9788 Fax: (086) 571 6292

ACRONYMS AND ABBREVEATIONS

BAR:Basic Assessment ReportCBA:Critical Biodiversity AreaCMP:Construction Management PlanDWS:South African National Department of Water and SanitationEA:Environmental AuthorisationECO:Environmental Control OfficerEIA:Environmental Impact AssessmentEIR:Environmental Impact Report
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EA:Environmental AuthorisationECO:Environmental Control OfficerEIA:Environmental Impact Assessment
ECO:Environmental Control OfficerEIA:Environmental Impact Assessment
EIA: Environmental Impact Assessment
EIR: Environmental Impact Report
EMPr: Environmental Management Programme
EMS: Environmental Management System
EO: Environmental Officer
I&AP: Interested and Affected Party
IDP: Integrated Development Plan
IEM: Integrated Environmental Management
LED: Local Economic Development
NEMA: National Environmental Management Act, Act No. 107 of 1998
NEMPAA: National Environmental Management: Protected Areas Act, Act No. 57 of 2003
NPAES: National Protected Area Expansion strategy
OMP: Operational Management Plan
SAHRA: South African Heritage Resources Agency
UNESCO: United Nations Educational, Scientific and Cultural Organization

GLOSSARY OF TERMS

Alien Vegetation:	Alien vegetation defined as undesirable plant growth which shall include, but not be limited to all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations.
Alien Species:	A plant or animal species introduced from elsewhere: neither endemic nor indigenous.
Alternatives:	In relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to:
	(a)The property on which or location where it is proposed to undertake the activity;

	(b) The type of activity to be undertaken;
	€ The design or layout of activity;
	(d) The technology to be used in the activity; and
	€ The operational aspects of the activity
Applicant:	Any person who applies for an authorization to undertake an activity or to cause such activity to be undertaken as contemplated in the National Environmental Management Act (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010.
Buffer zone:	Is a collar of land that filters out inappropriate influences from surrounding activities, also known as edge effects, including the effects of invasive plant and animal species, physical damage and soil compaction caused by trampling and harvesting, abiotic habitat alterations and pollution. Buffer zones can also provide more landscape needed for ecological processes, such as fire.
Construction Activity:	Any action taken by the Contractor, his subcontractors, suppliers or personnel during the construction process.
Ecology:	The study of the inter relationships between organisms and their environments.
Environment:	All physical, chemical and biological factors and conditions that influence an object and/or organism.
Environmental Impact:	An Impact or Environmental Impact is the degree of change to the environment, whether desirable or undesirable, that will result from the effect of a defined activity. An Impact may be the direct or indirect consequence of the activity and may be simple or cumulative in nature.
Environmental Impact Assessment	t: Assessment of the effects of a development on the environment.
Environmental Management Prog	ramme: A legally binding working document, which stipulates environmental and socio- economic mitigation measures that, must be implemented by several responsible parties throughout the duration of the proposed project.
Indigenous:	Means a species that occurs, or has historically occurred, naturally in a free state within the borders of South Africa. Species that have been introduced to South Africa as a result of human activity are excluded (South Africa (Republic) National Environmental Management: Biodiversity Act, 2004: Chapter 1).
Interested and Affected Party:	Any person, group of persons or organization interested in or affected by an activity contemplated in an application, or any organ of state that may have jurisdiction over any aspect of the activity.
Invasive vegetation:	Plant species that show the potential to occupy in unnatural numbers, any disturbed area, including pioneer species.
Mitigate:	The implementation of practical measures to reduce adverse impacts Public Participation Process: is a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters.

Public Participation:	The legislated process contemplated in terms GN R543, in which all potential interested and affected parties are informed of the proposed project and afforded the opportunity to input, comment and object. Specific requirements are listed in terms of advertising and making draft reports available for comment.
Road Reserve:	The road reserve is a corridor of land, defined by co-ordinates and proclamation, within which the road, including access intersections or interchanges, is situated. A road reserve may, or may not, be bounded by a fence.
Road Width:	The area within the Road Reserve including all areas beyond the Road Reserve that are affected by the continuous presence of the road i.e. the verge.
Red data plant species:	Are fauna and flora species that require environmental protection based on the World Conservation Union (IUCN) categories and criteria.
RoD:	Record of Decision pertaining to the Application for Environmental Authorisation issued by the Competent Authority. The RoD is legally binding on the Applicant and may contain a positive or negative decision on the Application as well as conditions and provisions for each.
Soil Compaction:	Mechanically increasing the density of the soil, vehicle passage or any other type of loading. Wet soils compact easier than moist or dry soils.
Species:	Means a kind of animal, plant or other organism that does not normally interbreed with individuals of another kind. The term "species" include any sub-species, cultivar, variety, geographic race, strain, hybrid or geographically separate population (South Africa [Republic] National Environmental Management: Biodiversity Act, 2004: Chapter 1).
The Contractor:	The contractor, as the developers agent on site, is bound by the ROD and EMP conditions through his/her contract with the developer, and is responsible for ensuring that conditions of the EMP and ROD are strictly adhered to at all times. The contractor must comply with all orders (whether verbal or written) given by the ECO, project manager or site agent in terms of the EMPr.
The Developer:	Remains ultimately responsible for ensuring that the development is implemented according to the requirements of the EMP and the conditions of the Environmental Decision throughout all phases of the project.
The Environmental Control Offic	er (ECO): The ECO is appointed by the developer as an independent monitor of the implementation of the EMP i.e. independent of the developer and contractor.
The Environmental Officer (EO):	The Contractor shall submit to the Site Agent a nominated representative of the Contractor as an EO to assist with day to day monitoring of the construction activities for the contract.
Vegetation:	Is a collective word for plants occurring in an area.
Vulnerable:	A taxon is 'Vulnerable' when it is not 'Critically Endangered' or 'Endangered' but is facing a high risk of extinction in the wild in the medium term future.
Watercourse:	A river or spring; a natural channel in which water flows regularly or intermittently; a wetland, lake or dam into which, or from which, water flows; and any collection of water which the Minister may by notice in the Government Gazette, declare to be a watercourse, and a reference to a watercourse includes, where relevant, its bed and banks" (South Africa [Republic] National Water Act, 1998).

EXECUTIVE SUMMARY

The proposed development entails the expansion of various infrastructure at River Lodge and Drakensig Staff Village within Kapama Private Game Reserve. The expansion at River Lodge will consist of the construction of a low impact walkway from the existing complex to the new dining room and kitchen, additional staff accommodation and a laundry room. The infrastructure at Drakensig will comprise of additional staff accommodation and a solar plant with a 750 kW output.

The study area and general surroundings as a **Critical Biodiversity Area 1 (CBA1)** (Desmet et al., 2013). CBA1's are described as Irreplaceable Sites that are required to meet biodiversity pattern and/or ecological processes targets.

Six conservation-important species were recorded with two considered to be of **conservation concern** as defined by Raimondo et al. (2009). *Elaeodendron transvaalense* and *Dalbergia melanoxylon* are both assessed as **Near Threatened**. The IUCN has assessed the epiphyte *Ansellia africana* to be **VU** and the small tree *Dalbergia melanoxylon* to be **NT**. *Sclerocarya birrea subsp. Caffra, Elaeodendron transvaalense, Philenoptera violacea, Combretum imberbe and Balanites maughamii* are **protected** under the National Forests Act (No. 30 of 1998) and *Spirostachys africana* is **protected** under the Limpopo Environmental Management Act (No. 7 of 2003).

An estimated 30 conservation-important mammals potentially occur within the project area, which is an extremely high total but this is due to the study area being situated within a large, formally protected conservation area in the savanna biome. Of the 30 potentially occurring species, 19 are considered to be **SCC** with only 12 considered **threatened**. Of these, four were confirmed during fieldwork namely, African elephant listed as **VU** by IUCN, Leopard *Panthera pardus* (**VU**), Hippopotamus (**VU**) and Lion *Panthera leo* (**VU** by IUCN).

No cultural heritage sites were recorded for the site.

All of the proposed new infrastructure sites are regarded as having a **moderate** site ecological importance and as such, a **moderate** sensitivity rating. The proposed laundry room is located in an already disturbed area which is devoid of vegetation as it was previously utilized as a bus parking lot. Additionally, there are no drainage lines or water courses close by. Similarly, the new staff accommodation will be located adjacent to the existing staff accommodation at River Lodge, as will the new staff accommodation and solar plant at Drakensig and no drainage lines or watercourses are nearby or will be impacted upon.

The proposed walkway will be located within the high water mark of the dam, the 32m buffer and the 1:100 flood line. However, it should be noted that the proposed walkway will be raised/elevated and the first portion located in an already disturbed area thereby minimizing the amount of riparian vegetation needed to be cleared.

The proposed development site is acceptable for development and is not fatally flawed in any way. The construction impacts, if effectively managed according to the mitigation measures proposed in this report, the specialist reports and the draft EMPr will have a predominately **low** residual significance rating. **Moderate** post mitigation significance ratings are anticipated in terms of pollution and contamination of the dam and drainage lines and disturbance of sensitive habitats due to the placement of the proposed walkway, loss of areas classified as CBA1 due to vegetation clearing. However, it should be noted that the riparian vegetation was rated as having a **moderate** sensitivity due to the fact that the area has already been disturbed by the earth dam inundating parts of the community and the current location of the existing dining room. Additionally, the first portion of the walkway will be located within an old fenceline and the walkway will be raised to limit the clearing of vegetation.

Similarly, operational impacts can also be mitigated and will result in **low** post mitigation significance ratings.

Positive impacts include job creation and employment opportunities for both the construction and operational phases, as well as, skills transfer and development. Other positive impacts include the generation of renewable energy and the reduction of reliance and use on Eskom power.

It is recommended that the Preferred Alternative: Alternative 1 be supported on the condition that all mitigation measures mentioned in this report, the specialist reports and the draft EMPr are implemented and adhered to throughout the project lifecycle.





DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

BASIC ASSESSMENT REPORT – EIA REGULATIONS, 2014

Basic Assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

(For official use only)

File Reference Number:

NEAS Reference Number:

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

- 1. The report must be compiled by an independent Environmental Assessment Practitioner.
- 2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
- 3. Where applicable **tick** the boxes that are applicable in the report.
- 4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.
- 5. An incomplete report may be returned to the applicant for revision.

- 6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
- 7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
- 8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
- 9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
- 10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

Postal Address:	Physical Address:		
Central Administration Office	Central Administration Office		
Environmental Impact Management	Environmental Affairs Building		
P. O. Box 55464	Cnr Suid and Dorp Streets		
POLOKWANE			
0700	POLOKWANE		
	0699		
	I		
Queries should be directed to the Central Administration Office: Environmental Impact Management:-			

Queries should be directed to the central Administration Office: Environmental impact Manage

For attention: Mr E. V. Maluleke

Tel: (015) 290 7138/ (015) 290 7167

Fax: (015) 295 5015

Email: <u>malulekeev@ledet.gov.za</u>

View the Department's website at <u>http://www.ledet.gov.za/</u> for the latest version of the documents.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES

If YES, please complete the form entitled "Details of specialist and declaration of interest" or appointment of a specialist for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail¹:

The proposed development entails the expansion of various infrastructure at River Lodge and Drakensig Staff Village within Kapama Private Game Reserve. The expansion at River Lodge will consist of the construction of the following:

- A low impact walkway from the existing complex to the new dining room and kitchen
- Additional staff accommodation
 - o Single storey
 - o 18 rooms sleeping 28 staff members
- Laundry room

The infrastructure at Drakensig will comprise of

- Additional staff accommodation
 - o Double storey building consisting of 24 rooms sleeping 24 staff
 - o Four cluster 3 bedroom houses sleeping 24
- A solar plant with a 750 kW output

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- € the design or layout of the activity;
- (d) the technology to be used in the activity;
- € the operational aspects of the activity; and
- (f) the option of not implementing the activity.

LEDET BAR: Project Name: Proposed Expansion to infrastructure at River Lodge and Drakensig in Kapama Private Game Reserve

¹ Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the Department may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

No alternatives are under consideration for the proposed development.

There is only one (1) site and layout under consideration for the proposed expansions at River Lodge and Drakensig Staff Village. The proposed site for the laundry room is a brownfields site that was previously utilized for bus parking, while the proposed site for the additional staff accommodation at River Lodge is a greenfields site that is adjacent to the existing staff accommodation complexes. The new staff accommodation will consist of 18 rooms sleeping 28 staff and will mirror the existing units in the design i.e. U-shaped complex with a center courtyard. All of the services are already in place and just need to be extended to the new development sites.

The walkway connecting the existing complex at River Lodge to the new dining room and kitchen area will consist of two (2) low impact raised platforms with a paved path between them. The first portion of the walkway will be 31.5 m in length and follow along an old fence line that is already disturbed and will span the dry river bed. The second portion of the walkway will span over the dam and be35.6 m in length. The area between these two walkways will be paved.

The proposed staff accommodation at Drakensig will be in mostly naturally cleared areas and located adjacent to the existing staff village and workshop at Drakensig. The additional staff accommodation will consist of one double storey building with 24 rooms, sleeping 24 staff members. The look and feel of this building will be that of the existing double story staff accommodation units at Drakensig. Additionally, four (4) 3 bedroom cluster homes will be constructed for senior staff and management. The solar plant will be located in a greenfields site that lies north of the existing Drakensig Staff Village. The solar panels will be pole mounted with an output of 750 kW.

Advantages of this site and layout for the proposed development include:

- The laundry room site is a brownfields site that has previously been disturbed.
- Existing services are in place that just need to be extended.
- The first portion of the walkway will follow an old fence line whereby the area is already disturbed.
- The walkway will be elevated to minimize vegetation clearing.
- The solar plant will provide green energy to River Lodge and reduce the usage of Eskom power.

Disadvantages of this site and layout for the proposed development include:

- All areas are classified as critical biodiversity areas.
- The supports of the walkway will be positioned within riparian vegetation.
- The walkway will be located within 32m of a watercourse
- The staff accommodation at River Lodge and the staff accommodation and solar plant at Drakensig are all greenfield sites

Paragraphs 3 – 13 below should be completed for each alternative. **ACTIVITY POSITION** 3.

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek 94 WGS84 spheroid in a national or local projection.

Preferred Alternative:	Latitude	(S):		Longi	tude (E):	
Staff Accommodation-River Lodge	24°	25'	39.93"	31°	1'	31.57"
Laundry facility- River Lodge	24°	25'	41.72"	31°	1'	34.44"
Staff accommodation double storey- Drakensig	24°	26'	6.45"	31°	1'	4.97"
Staff accommodation cluster homes- Drakensig	24°	26'	7.94"	31°	1'	6.72"
Solar Plant- Drakensig	24°	25'	59.23"	31°	0'	58.36"
In the case of linear activities: Alternative: Portion 1 of the raised walkway	Latitu	ıde (S):		Loi	ngitude €	Ē:
• Starting point of the activity	24°	25'	35.42	2" 31°	1	.' 38.99"
• Middle/Additional point of the activity	24°	25'	35.7	5" 31°	1	.' 38.47"
End point of the activity	24° 25'		36.07	7" 31°	1	.' 38.03"
Portion 2 of the raised walkway	Latitu	ıde (S):	·	Loi	ngitude €	

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

24°	25'	36.52"	31°	1'	37.33"
24°	25'	36.37"	31°	1'	36.72"
24°	25'	36.09"	31°	1'	36.26"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Preferred Alternative:

Staff accommodation- River Lodge Laundry Facility- River Lodge Staff accommodation- Drakensig Solar Plant- Drakensig or,

for linear activities:

Size of the activity:

625 m ²
200 m ²
 1500 m ²
5000 m ²

Length of the activity:

Portion 1 of walkway	31.5 m
Portion 2 of walkway	35.6 m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Size of the site/servitude:

Alternative:

Alternative A1 (preferred activity alternative) Alternative A2 (if any) Alternative A3 (if any)

m ²
m ²
m ²

5. SITE ACCESS

Does ready access to the site exist?

If NO, what is the distance over which a new access road will be built

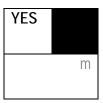
Describe the type of access road planned:

Existing, well established gravel roads already lead to River Lodge and Drakensig Staff Village.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.



The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by Department of Water Affairs);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

Please refer to Appendix A.

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

Please refer to Appendix B.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

Please refer to Appendix C.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R 20 million

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development phase of the activity?

What is the expected value of the employment opportunities during the development phase?

What percentage of this will accrue to previously disadvantaged individuals?

How many permanent new employment opportunities will be created during the operational phase of the activity?

What is the expected current value of the employment opportunities during the first 10 years?

What percentage of this will accrue to previously disadvantaged individuals?

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

NEE	D:	
i.	Was the relevant municipality involved in the application?	YES
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	YES
	Maruleng Local Municipality Integrated Development Plan (IDP) recognizes that the tourist key sector with significant opportunities for expansion and growth. Maruleng Local Mur some of Limpopo's prime tourist attractions including the Kruger National Park, Tir Reserve and Blyde River Canyon. It also recognizes that Kapama is a major 5-star luxur reserve.	nicipality boosts nbavati Private
	Therefore increasing the tourism offerings in the region, as well as, diversifying the to falls within the IDP.	ourism products
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explan	ation:

DESIRABILITY:			
i.	Does the proposed land use / development fit the surrounding area?	YES	
ii.	Does the proposed land use / development conform to the relevant structure plans,	YES	
	Spatial development Framework, Land Use Management Scheme, and planning visions		
	for the area?		

LEDET RAD, Project Name, Proposed Expansion to infrastructure at Diver Lodge and Proker	acia in Kanama Drivata Cama Docarva
LEDET BAR: Project Name: Proposed Expansion to infrastructure at River Lodge and Draker	isiy ili Kapalila Plivale Galile Reserve

R 0 (Covid)		
R 5	million	
(post c	ovid)	
	NO	
YES		
77		
R 5 million		
100%		
30		
R 25 million		
95%		

The vision in the Mopani Spatial Development Plan (SDP) is, 'to be the food basket of Southern Africa			
and the tourism destination of choice.' Maruleng Municipality is largely a rural municipality with tourism			
and agriculture as the cornerstones of the economy. Hoedspruit is the area with the most extended occurrence of private game reserves and hence an international tourist destination. Kapama PC located just outside of Hoedspruit and is considered an international tourist destination.			
			Additionally, the SDP notes that the municipality is focused around the town of Hoedspruit as commercial
centre, the wildlife and ecotourism reserves and estates, and the Kruger to Canyon Biosphere (K2C			
Kapama PGR is situated within the buffer zone of the K2C, whereby permitted activities includes			
ecotourism, of which the proposed expansion of infrastructure at River Lodge and Drakensig within			
Kapama Private Game Reserve falls under.			
Will the benefits of the proposed land use / development outweigh the negative impactsYESof it?			
The benefits of the proposed development are positive, contributing to economic growth and job			
creation. Approximately 77 jobs will be created during the construction phase and approximately 30 jobs			
will be created in the operational phase which is ideal in an area such as Maruleng where the			
unemployment rate is high.			
If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:			
Will the proposed land use / development impact on the sense of place? NO			
River Lodge is already an established accommodation venue comprising of accommodation units, a spa,			
reception/ dining areas and recreation areas. Therefore the area is already impacted upon and the			
addition of more staff accommodation and a laundry room will not have any additional impacts on the			
sense of place. Similarly, Drakensig staff village is an established home for staff at Kapama and the			
addition of more units will not have additional impacts on the sense of place.			
Will the proposed land use / development set a precedent? NO			
Will any person's rights be affected by the proposed land use / development? NO			
Will the proposed land use / development compromise the "urban edge"? NO			
The urban edge will not be compromised as the proposed development site is not located within a buil environment. Kapama Private Game Reserve is a reserve which is currently in the process of being			
			environment. Kapama Private Game Reserve is a reserve which is currently in the process of being
environment. Kapama Private Game Reserve is a reserve which is currently in the process of being formally declared as a Protected Area in terms of NEMPAA.			

BEN	EFITS:					
İ.	Will the land use / development have any benefits for society in general?YES					
İİ.	Explain:					
	The benefits of proposed project to the society in general include the following:					
Contributing to local economic growth.						
	Creation of both temporary and permanent job opportunities.Contributing to the ongoing conservation of Kapama Private Game Reserve. The increase of					
	local revenue will allow for the continued conservation and protection of the area.					
iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES				
iv.	Explain:					
	The proposed expansions of River lodge and Drakensig will benefit the local communities in terms					
	employment opportunities and job creation. It is estimated that approximately 77 jobs will be creation					
during the construction phase and 30 jobs during the operational phase. Skills developm						
	will also be a benefit. 100% of this labour will be sourced from previously disadvantaged	individua	als from			
	the local communities.					

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

• National Environmental Management Act (Act 107 of 1998), as amended (NEMA)

The Environmental Impact Assessment Regulations as specified in the National Environmental Management Act, 107 of 1998, as amended, (NEMA), contains Listing Notices 1 and 3 (GNR 327 and GNR 324). Should any activity listed in these listing notices be triggered, then it is necessary for an applicant to undertake an EIA, which meets the minimum requirements of section 24(7) of NEMA, where an activity requires permission by law. Owing to the fact that the proposed expansion of infrastructure at River Lodge and Drakensig triggers listed activities in GNR 327 and 324, a basic assessment is being undertaken in order to obtain environmental authorization prior to the commencement of construction.

TITLE OF LEGISLATION, POLICY OR GUIDELINE	APPLICABILITY TO THE PROJECT	Administering Authority	DATE
LEGAL FRAMEWORK			
Constitution of Republic of South Africa (Act No.108 of 1996):	This is the fundamental law of South Africa, setting out the Bill of Rights as well as the relationship of various government structures to each other.	National Government	1996
Conservation of Agricultural Resources Act (Act No. 43 of 1983):	Provides for control over the utilization of the natural agricultural resources of the Republic. The project will be required in terms of this legislation to ensure that: I The soil mantle is protected and conserved, I The natural water sources are protected, I Vegetative cover is conserved and weeds and invader plants are removed from the site.	Department of Agriculture	1983
National Environmental Management Act (Act No. 107 of 1998)	To provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for co-ordinating environmental functions exercised by organs of state; to provide for certain aspects of the administration and enforcement of other environmental management laws; and to provide for matters connected therewith.	Department of Environmental Affairs	1998
National Environmental Management: Protected Areas Act (Act No. 57 of 2003):	The Act provides for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes; for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with national norms and standards; for intergovernmental co-operation and public consultation in matters concerning protected areas, and for matters in connection therewith. <i>While, Kapama Private Game Reserve is not a formally declared protected area, it does fall within the Kruger to Canyons Biosphere Reserve as recognized by UNESCO and an application for proclamation has been submitted.</i>	Department of Environmental Affairs	2003
National Environmental Management: Biodiversity Act (Act No. 10 of 2004):	The purpose of the Biodiversity Act is to provide for the management and conservation of South Africa's biodiversity within the framework set out by NEMA and the protection of species and ecosystems that warrant national protection. As part of its implementation strategy, the National Spatial Biodiversity Assessment was developed (see below). The Act lists species that are threatened or require protection to ensure their survival in	Department of Environmental Affairs	2004

	the wild, while regulating the activities, which may involve such listed threatened or protected species and activities which may have a potential impact on their long-term survival. The Act has listed flora and fauna species. <i>Following the final positioning of the new infrastructure, should any identified protected plant species or trees need to be relocated or removed, permits will be applied for.</i>		
National Spatial Biodiversity Assessment, 2011:	The National Spatial Biodiversity Assessment (NSBA) classifies areas as worthy of protection based on its biophysical characteristics, which are ranked according to priority levels.	Department of Environmental Affairs	2011
National Forests Act (Act No. 84 of 1998):	This Act provides for the management, utilisation and protection of forests through the enforcement of permitting requirements associated with the removal of protected tree species, as indicated in a list of protected trees (first promulgated in 1976 and updated since).	Department of Agriculture, Forestry and Fisheries	1998
National Veld and Forest Fire Act (Act No. 101 of 1998)	The purpose of this Act is to prevent and combat veld, forest and mountain fires throughput the Republic. The Act provides for a variety of institutions, methods and practices for achieving this purpose.	Department of Water Affairs	1998
National Heritage Resources Act (Act No. 25 of 1999)	The National Heritage Resources Act legislates the necessity for cultural and heritage impact assessment in areas earmarked for development, which exceed 0.5 hectares (ha) and where linear developments exceed 300 metres in length. Potential impact on cultural heritage, paleontological or archaeological resources through excavation activities or disturbance will need to be monitored. Permits may be required per the National Heritage Resources Act (Act No. 25 of 1999).	South African Heritage Resources Agency (SAHRA)	1999
	Phase 1 Heritage Impact Assessments were undertaken. No cultural heritage, paleontological or archaeological artefacts were found.		
The National Water Act (Act No. 36 of 1998)	This Act aims to provide management of the national water resources to achieve sustainable use of water for the benefit of all water users. The development will have to ensure that local water resources are protected, used, developed, conserved, managed and controlled in a responsible way.	Department of Water Affairs	1998
The National Water Services Act (Act No. 108 of 1997)	The Act legislates the necessity to provide for the rights of access to basic water supply and basic sanitation; to provide for the setting of national standards and of norms and standards for tariffs; to provide for water services development plans; to provide a regulatory framework for water services institutions and water services intermediaries; to provide for the establishment and disestablishment of water boards and water services committees and their powers and duties; to provide for the monitoring of water services and intervention by the Minister or by the relevant Province; to provide for financial	Department of Water Affairs	1997

	assistance to water services institutions; to provide for certain general powers of the Minister; to provide for the gathering of information in a national information system and the distribution of that information; to repeal certain laws; and to provide for matters connected therewith.		
National Environmental Management Waste Act (Act No. 59 of 2008)	The Waste Act reforms the law regulating waste management in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation. The development will be subject to this Act in terms of the disposal of waste.	Department of Environmental Affairs	2008
	All waste is sorted into recyclables and non-recyclables. All waste that cannot be recycled is taken to the nearest registered landfill site in Hoedspruit. Wet waste is collected by a local pig farmer.		
Hazardous Substances Act (Act No. 15 of 1973)	To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances, and for the control of certain electronic products; to provide for the division of such substances or products into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances and products; and to provide for matters connected therewith.	Department of Health	1973
National Environmental management Air Quality Act (Act No. 39 of 2004)	To reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.	Department of Environmental Affairs	2004
Occupational Health and Safety Act, 1993 (Act No. 85 of 1993):	The purpose of this Act is to provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with, the activities of persons at work.	Department of Labour	1993
Integrated Environmental Management Information Series	IEM is a key instrument of NEMA and provides the overarching framework for the integration of environmental assessment and management principles into environmental decision-making. The aim of the information series is to provide general information on techniques, tools and processes for environmental assessment and Management. ERM have referred to these various documents for information on the most suitable approach to the	Department of Environmental Affairs	1992

	environmental assessment process for the proposed development.		
REGIONAL PLANNIN			
Mopani District Municipality Spatial Development Framework	One of the goals identified in the Mopani SDF is to establish strong economic and transportation linkages with Sub-Saharan countries and regional, national and international tourism markets.	Mopani District Municipality	2014
	The Marluleng Municipality is largely rural in nature with tourism and agriculture as the corner stones of the economy. Hoedspruit is the area with the most extensive occurrence of private game reserves and hence an international tourist destination. Economically, the municipality is focused around the town of Hoedspruit as commercial centre, the wildlife and ecotourism reserves and estates, and the Kruger to Canyon Biosphere.		
	The economic strength of Maruleng is tourism associated with wildlife and the natural beauty of the area. Agriculture, including agro-processing, tourism and retail and service businesses is seen as the major economic pillars of the municipality.		
Maruleng Local Municipality Integrated Development Plan	Tourism has been recognized as a competitive advantage of the Limpopo Province and the Mopani District has placed strategic emphasis investments on tourism. Additionally, the provincial economic development study identified tourism as sector with potential growth in the Mopani District. A national park, nature reserves and game farms cover almost half of the district, identified as one of the five best conserved ecosystems in the world, providing ample opportunity for Eco Tourism and SMME development. Tourism is also a key sector with significant opportunities for expansion and growth.	Maruleng Local Municipality	2020/2021
	The region forms part of the UNESCO designated Kruger to Canyon biosphere region. Tourism is both a growing industry with potential for further growth in Maruleng, and is relatively labour intensive, making it suitable in terms of the development challenges in the municipality. Tourism is also a highly specialised and competitive industry.		
Kruger to Canyons Biosphere Reserve	Biosphere Reserves, which have been internationally recognized by UNESCO in the Man and the Biosphere (MaB) Programme, are areas of terrestrial or coastal ecosystems. The Programme promotes and demonstrates a balanced relationship between people and nature.	Kruger to Canyons Biosphere Reserve	
	There are 3 zones in the K2C: <i>Core Zone-</i> consists of formally proclaimed reserves. These areas must be strictly protected. <i>Buffer Zone-</i> surrounds core zones and serves functions of conservation as well as		

	research, environmental education, training, tourism and recreation. <i>Transition Zone-</i> encompasses the regions outside of the buffer zone. <i>The Kapama Private Game Reserve falls within the buffer zone of the K2C which is in line</i> <i>with the activities permitted, namely tourism and recreation.</i>		
Kapama Private Game Reserve Management Plan	The primary objective of KPGR is to provide for ecologically and aesthetically sustainable (non-consumptive and consumptive) use of the area for its owner, based on wildlife focused recreation and tourism. Additionally, the zonation of Kapama is to adopt a strategy to ensure that developments and human use of the area occurs in such a way that these do not take place at the expense of the primary conservation objectives. In the broader conservation context, the zonation of Kapama should preferably be synchronised with that of existing infrastructure. This allows on the one hand maximising the benefits from adjoining low intensity use zones. On the other hand it would minimise the negative impact of a development zone if the adjoining zone has a similar level of development and disturbance associated with it. The objectives of the tourism development of Kapama are to generate revenue that will enable Kapama to achieve its conservation objectives and meet its annual operating budget, ensure optimal use of the area so that it is recognized as being an asset to both the province and country.	Kapama Private Game Reserve	2012

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Items that can be recycled will be separately stored for collection. All the solid material extracted during construction will be used around the site as garden landscaping. Any waste that cannot be recycled or reused will be disposed of at the nearest registered landfill site in Hoedspruit.

Where will the construction solid waste be disposed of (describe)?

Inert building rubble will be used as backfill in the site as necessary. Any waste that cannot be recycled or reused will be disposed of at the nearest registered landfill site in Hoedspruit.

Will the activity produce solid waste during its operational phase? If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

Items that can be recycled will be separated and stored for collection. Organic matter will be sold to a neighbouring pig farmer. Any waste that cannot be recycled or reused will be disposed of at the nearest registered landfill site in Hoedspruit.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the department to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

If yes, inform the department and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

If yes, then the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

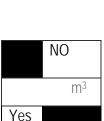
Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

If yes, what estimated quantity will be produced per month?

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes, the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

e YES
< 30 m³





NO

< 30 m³

YES

River Lodge and Drakensig Staff village currently generates wastewater flows within Kapama Private Game Reserve. Each of the sites have their own wastewater treatment works (WWTW) which are in the process of being upgraded to Moving bio-bed Reactor. This system consists of two reactor tanks with the bacteria required for the process, fixed on carrier media, and a clarifier and is fully automated. The MBBR process utilizes floating plastic carriers (media) within the aeration tank to increase the amount of microorganisms available to treat the wastewater.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

NO

If yes, provide the particulars of the facility:

Facility name:		
Contact person: Postal address:		
Postal code:		
Telephone:	Cell:	
E-mail:	Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Treated wastewater may be used for irrigation in and around the lodge site and staff village.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

No emissions, other than that of exhaust emissions and dust associated with the removal of stabilizing vegetation will be released into the atmosphere.

11(d) Generation of noise

Will the activity generate noise?

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. If no, describe the noise in terms of type and level:

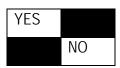
Standard construction noise (i.e. heavy vehicles and site work) occurred during the construction phase. During operations, minimal noise will be generated at the River Lodge.

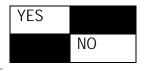
12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

municipal	water board	groundwater	river,	stream,	other	the activity will not use water
		-	dam or	lake		

LEDET BAR: Project Name: Proposed Expansion to infrastructure at River Lodge and Drakensig in Kapama Private Game Reserve





If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

Does the activity require a water use permit from the Department of Water Affairs?

500 000 Litres

YES

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

A water use license is in place for the extracting of water for irrigation. An application has already been submitted to convert this license to include human consumption.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient: Design measures to ensure that the proposed development is energy efficient *may* include the following:

- Lighting: LED lighting should be installed
- Hot water: Hot water may be provided by means of a heat pump.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

The solar plant will provide power to River Lodge and reduce the use and reliance on Eskom power.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section	С	Сору	No.	
(e.g. A):		1.5		

- 2. Paragraphs 1 6 below must be completed for each alternative.
- 3. Has a specialist been consulted to assist with the completion of this section?

YES

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:	Remaining Extent of the Farm Hoedspruit 82 KU
	(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.
Nearest Town	Hoedspruit

	In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.				
Current land-use	Agriculture				
zoning:	In instances where there is more than one surrent land use zoning, please attach a list of surrent				
	In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to , to this application.				
Is a change of land-	use or a consent use application required? NO				
Must a building plar	be submitted to the local authority?				
Locality map:	An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:				
	 an indication of the project site position as well as the positions of the alternative sites, if any; road access from all major roads in the area; road names or numbers of all major roads as well as the roads that provide access to the site(s); 				
	 all roads within a 1km radius of the site or alternative sites; and a north arrow; a legend; and 				
	 locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WCC04 appeared in a national or local projection). 				

Please refer to Appendix A for a broad locality map.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

River Lodge:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

WGS84 spheroid in a national or local projection)

Drakensig Staff Village:

Flat 1:50 - 1:20 1:20 - 1:15 1:15 - 1:10 1:10 - 1:7,5 1:7,5 - 1:5 5	Steeper than 1:5
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2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline	2.6 Plain	Х
2.2 Plateau	2.7 Undulating plain / low hills	
2.3 Side slope of hill/mountain	2.8 Dune	

LEDET BAR: Project Name: Proposed Expansion to infrastructure at River Lodge and Drakensig in Kapama Private Game Reserve

2.4 Closed valley	2.9 Seafront	
2.5 Open valley		

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

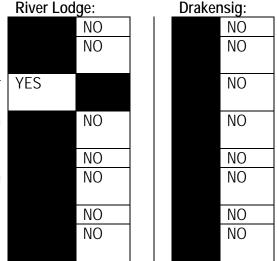
Shallow water table (less than 1.5m deep) Dolomite, sinkhole or doline areas

Seasonally wet soils (often close to water bodies)

Unstable rocky slopes or steep slopes with loose soil

Dispersive soils (soils that dissolve in water) Soils with high clay content (clay fraction more than 40%)

Any other unstable soil or geological feature An area sensitive to erosion



If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

This holds true for all sites.

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Sport field Cultivated land		Building or other structure	Bare soil

If any of the boxes marked with an "E" is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area	Х	5.22 School	
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential		5.24 Church	
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial AN		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
5.7 Military or police base/station/compound		5.28 Protected Area	
5.8 Spoil heap or slimes dam ^A		5.29 Sewage treatment plant ^A	
5.9 Light industrial		5.30 Train station or shunting yard N	
5.10 Heavy industrial AN		5.31 Railway line ^N	Х
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities		5.33 Airport ^N	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station ^H		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	Х
5.17 Plantation		5.38 Nature conservation area	
5.18 Agriculture		5.39 Mountain, koppie or ridge	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	Х
5.21 Dam or Reservoir	Х	5.42 Other land uses (describe)	

If any of the boxes marked with an " N "are ticked, how will this impact / be impacted upon by the proposed activity?

The railway line is located 200 m to the west of Drakensig staff village, outside of KPGR. The development of the proposed new staff accommodation units and solar plant will have no impact on the railway line.

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity?

If YES, specify and explain:	
If NO, specify:	

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:	
If NO, specify:	

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or palaeontological sites, on or close (within 20m) to the site?

NO Uncertain

lf YES, explain:

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:	Camp and Drakensig Staff Village. These reports covered the areas where the new	
	No archaeological (both Stone Age and Iron Age) or historical artefacts, assemblages, features, structures or settlements were recorded during these surveys.	
	The palaeontological sensitivity map was extracted from the SAHRIS database and clearly shows grey (insignificant/zero) sensitivity. As a result no palaeontological study will be required for the survey footprint.	
	Please refer to Appendix D.1 and D.1.1 for the full report and letter.	

Will any building or structure older than 60 years be affected in any way?

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

NO NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

7. BIODIVERSITY

A Terrestrial ecology study and biodiversity value assessment was conducted by Ecorex in June 2018 for the River Lodge extensions and in April 2019 for S24G covering all camps including River Lodge and Drakensig Staff Village. In April 2021, the 2019 report was updated to include the new proposed infrastructure i.e. staff accommodation, laundry room and walkway at River Lodge and staff accommodation and solar plant at Drakensig.

According to Mucina & Rutherford (2006), the study area is situated within Granite Lowveld in the Lowveld Savannah Bioregion in the Savanna Biome. Granite Lowveld originally covered about 19 838 km2, of which 21% has been transformed, mostly through agriculture and urbanisation. Mucina & Rutherford (2006) assessed this community to be Vulnerable, but it is not situated within any Threatened Ecosystems as listed in Government Gazette No. 34809 of 9 December 2011 (DEAT, 2011). The study area is not situated within any Threatened Ecosystems as listed in Government Gazette No. 34809 of 9 December 2011 (DEAT, 2011). The study area is not situated within any Threatened Ecosystems as listed in Government Gazette No. 34809 of 9 December 2011 (DEAT, 2011). The study area is not situated within any Threatened Ecosystems as listed in Government Gazette No. 34809 of 9 December 2011 (DEAT, 2011).

LEDET BAR: Project Name: Proposed Expansion to infrastructure at River Lodge and Drakensig in Kapama Private Game Reserve

The Limpopo Province Biodiversity Conservation Assessment (LPBCA) classifies most of the study area and general surroundings as **Critical Biodiversity Area 1 & 2** (CBA1, CBA2) (Desmet et al., 2013). CBA's are described as **Irreplaceable** Sites that are required to meet biodiversity pattern and/or ecological processes targets.

Two (2) untransformed vegetation communities were identified within the study area, applicable to the proposed development sites, on the basis of distinctive vegetation structure (grassland, woodland, thicket, etc.), floristic composition (dominant and diagnostic species) and position in the landscape (mid-slopes, terrace, crest, etc.). The untransformed vegetation communities are described in detail below, with alien plant species indicated by an asterisk:

Schotia brachypetala – Euclea divinorum Riparian Thicket

Riparian Thicket occurs along the banks of the seasonal drainage lines throughout River Lodge. It is characterised by moderately tall riparian trees with a clumped, often dense understory layer. Vegetation structure is mostly Short Thicket and Bushland Woodland (sensu Edwards, 1983).

The following site contains Riparian Thicket:

1. River Lodge (proposed new walkway)

The tree *Schotia brachypetala* dominates the canopy of this community with a lower abundance of additional trees such as *Spirostachys africana*, *Acacia robusta subsp. clavigera*, *Combretum hereroense*, *Elaeodendron transvaalense and Terminalia sericea*. Smaller trees and shrubs found include *Euclea natalensis subsp. angustifolia and E. divinorum*, *Mystroxylon aethiopicum subsp. schlechteri*, *Gymnosporia senegalensis*, *Pappea capensis*, *Searsia gueinzii*, *Grewia flavescens*, *Dalbergia melanoxylon and Phyllanthus reticulatus var. reticulatus*. Dwarf shrubs and herbs found include Hypoestes forskaolii, *Barleria elegans*, *B. obtusa* and * *Ageratum conyzoides*. Grasses dominate the ground layer, especially *Panicum maximum and Eragrostis trichophora*.

Four conservation-important species were recorded with two considered to be of **conservation concern** as defined by Raimondo et al. (2009). *Elaeodendron transvaalense* and *Dalbergia melanoxylon* are both assessed as **Near Threatened**. The IUCN has assessed the epiphyte *Ansellia africana* to be **VU** and the small tree *Dalbergia melanoxylon* to be **NT**. *Sclerocarya birrea subsp. caffra* and *Elaeodendron transvaalense* are **protected** under the National Forests Act (No. 30 of 1998) and *Spirostachys africana* is **protected** under the Limpopo Environmental Management Act (No. 7 of 2003). Riparian Thicket was assessed as having **Medium** biodiversity value.

Combretum apiculatum – Sclerocarya birrea Closed Woodland

This is the dominant vegetation community on KGR. Vegetation structure is Short to Tall Closed Woodland (Edwards, 1983). The following Application Sites contain Closed Woodland:

- 1. River Lodge (proposed new staff accommodation, laundry room)
- 3. Drakensig (proposed new staff accommodation and solar facility)

A high diversity of trees dominate the canopy with the most dominant including *Sclerocarya birrea*, *Combretum apiculatum*, *C. zeyheri*, *C. hereroense*, *Peltophorum africanum*, *Acacia nigrescens*, *Strychnos madagascariensis* and *Terminalia sericea*. Common shrubs found include *Euclea divinorum*, *Acacia gerrardii*, *Dichrostachys cinerea* and *Mundulea sericea*. Dominant forbs, bulbs and herbs found include *Ocimum americanum*, *Waltheria indica*, *Kyphocarpa angustifolia* and *Agathisanthemum bojeri*. The dominant grasses found include *Eragrostis rigidior*, *Urochloa mosambicensis*, *Sporobolus pyramidalis*, *Eragrostis superba* and *Heteropogon contortus*.

Six conservation-important species were recorded. One of these is listed by the IUCN as VU, namely *Ansellia africana*, and one as NT, namely *Dalbergia melanoxylon*. Four species are protected under the NFA, namely *Sclerocarya birrea*, *Philenoptera violacea*, *Combretum imberbe* and *Balanites maughamii*. Closed Woodland was assessed as having Medium ES through a combination of High Conservation Value and Medium RSI. It is situated in a CBA1 Irreplaceable area and houses nationally threatened mammal and bird species.

<u>Fauna</u>

The Kapama Private Game Reserve is situated in the savanna biome adjacent to the Greater Kruger National Park (GKNP) and therefore has very high mammal diversity, relatively low numbers of endemics and a relatively high number of Red Data species. Most of the surrounding area is formally conserved with roads and lodges the primary types of development. Mammal populations, therefore, are well protected and reasonably secure.

Twenty-six mammal species were recorded during fieldwork, 23 of which were recorded from Closed Woodland. These included many common and widespread species such as Impala *Aepyceros melampus*, Greater Kudu *Tragelaphus strepsiceros*, Plains (Burchell's) Zebra *Equus quagga burchelli* and Chacma Baboon *Papio ursinus*. Seven species were recorded from Forest / Thicket habitats, including Nyala *Tragelaphus angasii* and Vervet Monkey *Chlorocebus pygerythrus*, while two mammals were recorded from aquatic habitat, namely Hippopotamus *Hippopotamus amphibius* and African Elephant *Loxodonta africana*.

An estimated 30 conservation-important mammals potentially occur within the project area, which is an extremely high total but this is due to the study area being situated within a large, formally protected conservation area in the savanna biome. Of the 30 potentially occurring species, 19 are considered to be SCC with only 12 considered threatened. Of these, four were confirmed during fieldwork namely, African elephant listed as VU by IUCN, Leopard *Panthera pardus* (VU), Hippopotamus (VU) and Lion *Panthera leo* (VU by IUCN).

Seven potentially occurring species are assessed as **Near Threatened**, which are species close to or likely to soon qualify for the status of Vulnerable. Two species were located during fieldwork, namely Spotted Hyaena *Crocuta crocuta* and White Rhinoceros *Ceratotherium simum*.

<u>Avifauna</u>

The savanna biome supports the highest diversity of bird species within the Southern African sub-region. The study area, situated within the QDGS 2431 AC, is especially diverse with a total of 348 species recorded during the second Southern African Bird Atlas Project (SABAP2), which is currently in progress. At a finer scale, data from SABAP2 indicate that 332 bird species from 156 full protocol lists have already been recorded from the four pentads (mapping units) in which the study area is situated (2420_3100, 2420_3105, 2425_3100 & 2425_3105).

The study area falls within the Kruger National Park and Adjacent Areas Important Bird Area (IBA) and qualifies as a **Global IBA** under criteria A1, A2, A3 and A4i. Eleven globally threatened species are resident within the GKNP, in addition to fourteen resident regionally threatened birds. A number of migratory and vagrant threatened species also occur.

A total of 157 bird species were confirmed to occur in the study area during fieldwork. Three assemblages were present, namely Woodland Assemblage, Riparian Forest/Thicket Assemblage and Aquatic Assemblage. An estimated 36 conservation-important birds potentially occur within the study area. Twenty-six of these are considered **threatened**, three of which were confirmed to occur during fieldwork: Bateleur **(Endangered)**, White-backed Vulture **(Critically Endangered)** and Hooded Vulture **(Critically Endangered)**. Eight **Near Threatened** species potentially occur within the study area with only one confirmed during fieldwork, the Marabou Stork. A flock was recorded roosting at the waste water treatment works adjacent to River Lodge and it is likely to regularly forage within the study area.

Reptiles

Fifty-five species of reptiles have been recorded from the QDS 2431 AC, in which Kapama is situated, as listed on the Reptile Atlas of Southern Africa website indicating that reptile diversity in the area is high.

Nine reptiles were recorded during fieldwork, all of which are common and widespread in the Lowveld (Bates et al., 2014). Species recorded in the Woodland assemblage include Speke's Hinged Tortoise *Kinixys spekii*, Bushveld Lizard *Heliobolus lugubris* and Eastern Black-lined Plated Lizard *Gerrhosaurus intermedius*. Serrated Hinged Terrapin *Pelusios sinuatus* and Water Monitor *Varanus niloticus* were recorded from aquatic habitats. No reptiles were recorded from Forest / Thicket environments.

Of the potentially occurring species, only three **conservation-important** reptiles potentially occur. Only two of these is considered a **SCC**, namely Listed Sensitive Species No. 2, which is also **protected** under NEMBA ToPS, and Natal Hinged Tortoise Kinixyx natalensis. Although Listed Sensitive Species No. 2 was not recorded during fieldwork, this species is confirmed from Kapama.

<u>Frogs</u>

Only two species of frogs were recorded during fieldwork, one from the Forest / Thicket community, namely Southern Foam Nest Frog *Chiromantis xerampelina*, and one from Aquatic Habitat, namely Common Platanna *Xenopus laevis.* Both frogs are common and widespread in the Lowveld (Minter et al., 2004).

Please refer to Appendix D.2.for the full report.

8. VISUAL

A visual impact assessment was undertaken by NuLeaf Planning and Environmental in April 2021 in order to determine the possible visual impact of the proposed Expansion to River Lodge and Drakensig Staff Village.

The topography of the general area is flat to undulating. Most of the study area contains untransformed vegetation, but existing infrastructure is present within River Lodge and Drakensig. The area of the proposed laundry room at River Lodge was previously used as a bus parking area and is therefore already disturbed and cleared of vegetation.

The surrounding area is mainly used for conservation and tourism related activities, the area being characterised by game farms. The Kapama Nature Reserve in included in the Kruger-to-Canyon Biospere Reserve.

In general, the landscape character of the greater study area presents as rural and natural, with some agriculture. The site itself is natural in character and furthermore it is situated within a conservation zone of surrounding reserves.

The visual quality of the receiving environment within the study area is high, due to large tracts of intact natural vegetation. This lends a distinct sense of place to the area. This area is known as a tourist destination in its own right and its location to the Kruger National Park and other Game reserves within the region.

The entire study area may be considered as moderately sensitive to visual impacts due to its generally flat topography and dense surrounds of bushveld. However, both River Lodge and Drakensig are established sites with various infrastructure present so the visual impact is already present.

Overall, the Visual Absorption Capacity (VAC) of the site and surrounds is high to moderate, depending on the nature of the vegetation (i.e. natural grassland vegetation will have a low VAC and thicket and woodland would have a moderate VAC).

Majority of the visual impact will occur within the boundaries of the Kapama Private Game Reserve, with a small portion of the R40 falling within the high core zone. There is already an existing visual impact at both River Lodge and Drakensig. It is therefore expected that the visual impact associated with the extensions will further contribute to the visual impact currently present on the affected farmsteads in these areas and the other existing lodges located within the Reserve.

Please refer to Appendix D.3. for the full report.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the department;
- (c) placing an advertisement in-
 - (i) one local newspaper; or

- (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state-
 - (i) that the application has been submitted to the department in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (v) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, LEDET BAR: Project Name: Proposed Expansion to infrastructure at River Lodge and Drakensig in Kapama Private Game Reserve 34

ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

- A list of interested and affected parties (I&APs), as well as, compliance authorities was compiled inclusive of Local and District Municipalities and local landowners
- Written notification of the proposed development, including a background information document, was sent to all identified I&AP's and Compliance Authorities on 5 March 2021.
- A printed advertisement was placed in the Hoedspruit Herald, a local publication, on the 5 March 2021.
- Site notices were placed at the main entrance to KPGR and at River Lodge on 1 March 2021.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

Please refer to Appendix E for the comments and response report.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Please refer to Appendix E.4 for a full list of stakeholders.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

Name of Authority informed:	Comments received (Yes or No)
Maruleng Local Municipality	No
Mopani District Municipality	No
Department of Water and Sanitation	No

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the department.

Proof of any such agreement must be provided, where applicable.



If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties. No issues have been raised as of yet.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

All potential environmental impacts, both positive and negative, have been identified for the entire lifecycle of the project i.e. planning / design, construction and operations. The decommissioning of the proposed development is not anticipated and has therefore not been assessed

Activity	Impact summary	Significance (post mitigation)	Proposed mitigation / comments								
Alternative 1 (Prefer	red Alternative)										
Planning and	Direct impacts:										
Design Phase	Ground Water										
	None.										
	Surface Water										
	Risk to ecological function of the	36	 Management as per the EMPr 								
	drainage lines and dam due to possible	М	Section 7.1.2.								
	placement of the walkway within the										
	habitat.										
	Risk to hydrological function (quality and	36									
	fluctuation properties) along the	Μ									
	drainage lines and dam due to activity										
	and disturbance near the watercourse.										
	This only pertains to the construction of										
	the walkway at River Lodge.										
	Soil										

	Erosion risk to soils	27 L	Management as per the EMPr Section 7.1.2.
	Air		
	None.		
	Biodiversity (Flora)		
	Risk to critical biodiversity areas	33 M	 Management as per the EMPr Section 7.22 & 7.2.3
	This impact will be slightly lower owing to the fact that the laundry room site is a		
	brownfields site and a portion of the walkway is located along an old fence		
	line.		
	Risk to Granite Lowveld vegetation	18 L	
	Risk to sensitive habitats	27 I	
	This impact will be slightly lower owing	_	
	to the fact that a portion of the walkway		
	is located along an old fence line where		
	the riparian vegetation has previously		
	been disturbed.additionally, the walkway		
	will be raised to limit vegetation clearing.		
	Risk to Conservation Important Species	30	
	and protected trees	L	
	Biodiversity (Fauna)		
	Risk of habitat fragmentation	18	Management as per the EMPr
		L	Section 7.2.4
	All new infrastructure will be located in		
	previously disturbed areas or areas		
	adjacent to existing buildings.		
	Land use and agricultural potential		
	None.		
	Heritage		
	None.		
	Visual	10	
	Risk to visual quality of the surrounding	18	Management as per the EMPr Section 7.4.1
	area and sense of place due to the development of structures and	L	Section 7.4.1
	infrastructure within an otherwise natural		
	environment.		
	Risk of glare from high-tech and	30	_
	reflective materials used for solar	L	
	panels.	L	
	Socio-economic		
	None.		
	Municipal services and traffic		
	None.		
	Indirect impacts:		
	None.		
	Cumulative impacts:		
	Biodiversity (Flora)		
	Cumulative loss of Granite Lowveld	18	Managament on particle EMDr
	vegetation		 Management as per the EMPr Section 7.2.2 & 7.2.3
	Cumulative reduction of Conservation	28	Section 7.2.2 & 7.2.5
	Important Species and protected trees	28	
	Biodiversity (Fauna)	L	
	Cumulative loss of faunal habitat	20	Management as per the EMPr
		L	Section 7.2.4
Construction Phase	Direct impacts:		
	Ground water		
	Depletion of ground water	14	Management as per the EMPr
		L	

Pollution and contamination of ground	18	Section 8.2.1
water	L	
Surface water		
Disturbance and loss of ecological function of the dam and drainage lines	24 L	Management as per the EMPr Section 8.2.2 & 8.2.3
This impact pertains to the proposed new walkway, however, the first portion will be located within an old fence line where the vegetation has already been		
disturbed.		-
Pollution and contamination of surface	36	
water. Soil	М	
Soil contamination and pollution.	18	Management as per the EMPr Section 2.1 0.2 0.0 0.2
Soil erosion via wind and rain.	L 27	Section 8.3.1, 8.3.2 & 8.3.3
	27	
Air	L	
Air pollution due to emissions from	24	Management as per the EMPr
construction vehicles and equipment.	L	Section 8.3.4
Generation of dust owing to construction	21	
activities.	L	
Smoke generated from open fires used	14	1
by workers for heating and cooking.	L	
Biodiversity (Flora)		
Removal of exotic and declared invader	30	Management as per the EMPr
species (positive impact).	L	Section 8.3.52, 8.3.6 & 8.3.7
Loss of critical biodiversity areas	40 M	
All new infrastructure will be located in		
previously disturbed areas or areas		
adjacent to existing buildings.		
Loss of Granite Lowveld vegetation and	28	
associated loss of species richness.	L	
All new infrastructure will be located in		
previously disturbed areas or areas		
adjacent to existing buildings.		
Disturbance of sensitive habitats.	33	
This impact will be slightly lower owing	Μ	
to the fact that a portion of the walkway		
is located along an old fence line where		
the riparian vegetation has previously		
been disturbed. Additionally, the		
walkway will be raised to limit vegetation		
clearing.		
Destruction and damage to	20	4
Conservation Important Species and	20	
protected trees	L	
Increase in exotic vegetation/alien	22	1
species and bush encroachment into	Ĺ	
disturbed soils and areas.		
Biodiversity (Fauna)		•
Loss of faunal habitat which acts as a	22	Management as per the EMPr
wildlife corridor	L	Section 8.3.8 & 8.3.9
All new infrastructure will be located in		
previously disturbed areas or areas		
adjacent to existing buildings.		
Loss of general faunal habitat and	20	1
	-	

ecological connectivity.	L	
Fauna mortality	18	
	L	
Poaching and snaring of faunal species	27	
by construction workers.	L	
KDCD amplaus a dadiastad construction		
KPGR employs a dedicated construction		
team. Increased opportunity for smuggling of	27	
poached items.	27	
Land use and agricultural potential	L	
None		
Heritage		
Possible discovery of new important	16	Management as per the EMPr
artefacts (positive impact)	L	Section 8.5.1 & 8.5.2
Damage to and / or destruction of	8	
archaeological, paleontological or	Ν	
historical artefacts unearthed during		
construction.		
Visual		
Visual impact of construction, lighting	18	Management as per the EMPr
and dust on sensitive visual receptors	L	Section 8.6.1
owing to the presence of construction		
equipment, camps and workers. Visual impact of construction, lighting	16	
and dust on conservation areas within	10	
the region (Kapama Reserve).	L	
Socio-economic		
Stimulation of the local economy,	24	Management as per the EMPr
especially the local service delivery	L	Section 8.7.1 & 8.7.2
industry (positive impact)	_	
Short term employment and business	36	
opportunities and the opportunity for	М	
skills development and on-site training.		
(Positive impact).		
Noise, dust and safety impacts and	14	
disturbance to adjacent landowners	L	
An increase in construction workers and	14	
associated increase in social problems	L	
for the community	24	
Increase in casual workers and	24	
associated increase in poaching.	21	
Increased fisk of velu lifes		
Municipal services and traffic	L	
Increase in traffic on the surrounding	21	Management as per the EMPr
local	Ĺ	Section 8.7.3
Increase in the number and frequency of	21	
construction vehicles accessing the site	Ľ	
Indirect impacts:		
Biodiversity (Flora)		
Loss of floral biodiversity, Conservation	22	As above
Important Species and protected trees	L	
Biodiversity (Fauna)		
Loss of faunal biodiversity	20	As above
	L	
Socio-economics		
Loss of property and threat to human life	16	As above
Traffia and Caralysis	L	
Traffic and Services	01	A 1
Degradation of local roads due to the increase in the numbers of heavy	21	As above

	vehicles.											
	Cumulative impacts:											
	Biodiversity (Flora)											
	Cumulative loss of Granite Lowveld	27	Management as per the EMPr									
	vegetation and associated loss of species richness.	L	Section 8.3.5, 8.3.6 & 8.3.7									
	Loss of critical biodiversity areas	22										
	Cumulative loss of ecological function of sensitive habitats.	26 L	-									
	Cumulative reduction and damage to Conservation Important Species and protected trees.	24 L										
	Biodiversity (Fauna)											
	Cumulative loss of faunal habitat	24 L	Management as per the EMPr Section 8.3.8 & 8.3.9									
	Socio-economic											
	Community upliftment and the opportunity to increase the skill level in the area (positive impact).	24 L	Management as per the EMPr Section 8.7.1 & 8.7.2									
	Services and traffic											
	Cumulative increase in traffic and the resultant noise, dust, and safety impacts on other road users	16 L	Management as per the EMPr Section 8.7.3									
Operational Phase	Direct Impacts:											
operational r hase	Direct Impacts: Ground water											
	Depletion of ground water resources	18	Management as per the EMPr									
	(water quality) Pollution and contamination of ground	L 22	Section 9.1.1									
	water.	L										
	Surface water	10										
	Disturbance and loss of ecological	18	Management as per the EMPr									
	function of the habitat (physical structure) along the dam and drainage lines.	L	Section 9.1.2, 9.1.3 & 9.1.4									
	Pollution and contamination of surface	20	-									
	water.	L L										
	Disturbance and loss of hydrological	18	-									
	function (quality and fluctuation properties) along the dam and drainage lines.	Ĺ										
	Soil											
	Pollution and contamination of the soil	18 L	Management as per the EMPr Section 9.2.1 & 9.2.2									
	Soil erosion	18										
		L										
	Air											
	Air pollution by emissions from increased numbers of game drive vehicles.	33 M	Management as per the EMPr Section 9.2.3									
	Biodiversity (Flora)		1									
	Loss of Granite Lowveld vegetation and associated loss of species richness	18 L	Management as per the EMPr Section 9.2.4, 9.2.5 & 9.2.6									
	Loss of critical biodiversity areas	22 L										
	Disturbance of sensitive habitats	18 L										
	Destruction and damage to Conservation Important Species and protected trees	20 L										
		L										

Increase in eventia vegetation/alion	າາ	
Increase in exotic vegetation/alien species and bush encroachment into	22 L	
disturbed soils and areas in the event	L	
that the rehabilitation process is not successful		
Biodiversity (Fauna)		
Loss of faunal habitat.	18	Management as per the EMPr
	10	Section 9.2.7, 9.2.8 & 9.2.9
Faunal disturbances and changes in	27	
distribution and abundance.	27	
Faunal mortality	20	-
T durial mortainty	20	
Poaching and snaring of fauna by staff.	24	—
Land use and agricultural potential	L	
None.		
Visual		
Potential visual impact on sensitive	18	Management as per the EMPr
visual receptors in close proximity to the	L	Section 9.4.1
proposed developments.	L	Section 9.4.1
Potential visual impact on sensitive	20	
visual receptors within the region	20	
Potential visual impact on protected and	16	-
conservation areas (i.e. the Kapama	L	
Reserve) within the study area.	L	
Potential visual impact of the solar	16	-
panels on sensitive visual receptors in	L	
close proximity thereto	L	
The potential visual impact of safety and	20	-
security lighting of the developments at	20	
night on sensitive visual receptors in	L	
close proximity		
Socio-economic		
Stimulation of the local economy,	33	• Management as per the EMDr
especially the local service delivery	55 M	Management as per the EMPr Section 9.5.1
industry (positive impact)	IVI	Section 9.5.1
Creation of long term employment and	56	-
business opportunities as well as	50 H	
opportunities for skills development and	П	
transfer (positive impact)	48	-
Creation of opportunities for local		
SMME's (positive impact)	<u>M</u> 8	
Impact on adjacent land uses and activities		
	Ν	
Service and traffic	70	Monogramment and the EMD
Lower operational costs owing to the	70 u	Management as per the EMPr Section 0.5.2
construction of the PV plant and	Н	Section 9.5.2
reduction of Eskom power use.	20	
Increase in traffic on the surrounding	20	
roads	L	_
Increase in the number and frequency of	20	
vehicles accessing the site	L	
Indirect impacts:		
Visual		
The potential visual impact of the	18	Management as per the EMPr
development on the visual character of	L	Section 9.4.1
the landscape and sense of place of the		
region.		
Cumulative impacts:		
Biodiversity (Flora)		
Cumulative loss of Granite Lowveld	22	Management as per the EMPr
vegetation and associated loss of	L	

	species richness.		Section 9.2.4, 9.2.5 & 9.2.6
	Cumulative disturbance of sensitive	22	
	habitats	L	
	Cumulative reduction and damage to	28	
	Red data species and protected trees.	L	
	Visual		
	Accumulation of built infrastructure in a	22	 Management as per the EMPr
	natural environment.	L	Section 9.4.1
	Socio-economic		
	Creation of permanent employment and	33	 Management as per the EMPr
	skills and development opportunities for	М	Section 9.5.1
	members from the local community and		
	creation of additional business and		
	economic opportunities in the area.		
	(positive impact)		
	Promotion of social and economic	27	
	development in the local communities	L	
	(positive impact)		
	Services and traffic		
	Cumulative increase in traffic on the	18	 Management as per the EMPr
	surrounding roads	L	Section 9.5.2
	Cumulative increase in the number and	22	
	frequency of vehicles accessing the site	L	
	Waste disposal practices will have an	22	
	accumulative effect on the local landfill	L	
	site's capacity to absorb waste.		
Decommissioning ph	ase		
None			

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Kapama Private Game Reserve is situated within Granite Lowveld vegetation type, which is in the Lowveld Savannah Bioregion of the Savanna Biome. Granite Lowveld was assessed by Mucina & Rutherford (2006) as **Vulnerable**.

Kapama Private Game Reserve is not situated in any floristic centres of endemism and is not listed as a Threatened Ecosystem.

The Limpopo Province Biodiversity Conservation Assessment (LPBCA) classifies most of the study area and general surroundings as **Critical Biodiversity Area 1 & 2** (CBA1, CBA2) (Desmet et al., 2013). CBA's are described as **Irreplaceable** Sites that are required to meet biodiversity pattern and/or ecological processes targets.

Six conservation-important species were recorded with two considered to be of **conservation concern** as defined by Raimondo et al. (2009). *Elaeodendron transvaalense* and *Dalbergia melanoxylon* are both assessed as **Near Threatened**. The IUCN has assessed the epiphyte *Ansellia africana* to be **VU** and the small tree *Dalbergia melanoxylon* to be **NT**. *Sclerocarya birrea subsp. Caffra, Elaeodendron transvaalense, Philenoptera violacea, Combretum imberbe and Balanites maughamii* are **protected** under the National Forests Act (No. 30 of 1998) and *Spirostachys africana* is **protected** under the Limpopo Environmental Management Act (No. 7 of 2003).

An estimated 30 conservation-important mammals potentially occur within the project area, which is an

extremely high total but this is due to the study area being situated within a large, formally protected conservation area in the savanna biome. Of the 30 potentially occurring species, 19 are considered to be SCC with only 12 considered **threatened**. Of these, four were confirmed during fieldwork namely, African elephant listed as **VU** by IUCN, Leopard *Panthera pardus* (**VU**), Hippopotamus (**VU**) and Lion *Panthera leo* (**VU** by IUCN).

No cultural heritage sites were recorded for the site.

All services will be extended to the proposed new infrastructure. The solar plant will provide supplement the power the River Lodge, reducing the use of Eskom power.

Preferred Alternative: Alternative 1

The proposed new staff accommodation, laundry room and walkway at River Lodge is regarded as having a **moderate** site ecological importance and as such, has a **moderate** sensitivity rating. The proposed laundry room is located in an already disturbed area which is devoid of vegetation as it was previously utilized as a bus parking lot. Additionally, there are no drainage lines or water courses close by. Similarly, the new staff accommodation will be located adjacent to the existing staff accommodation at River Lodge and no drainage lines or watercourses are nearby or will be impacted upon.

The proposed walkway at River Lodge will consist of two raised walkways. The first portion will be located over a dry river bed that only fills during flood events. The walkway will be located within an old fence line where the vegetation has previously been disturbed and thinned. The second portion of the walkway will be located over an episodic drainage line near the top end of the earthen dam. Both portions of the walkway will be located within the high water mark of the dam, the 32m buffer and the 1:100 flood line. However, it should be noted that the proposed walkway will be raised/elevated and the first portion located in an already disturbed area thereby minimizing the amount of riparian vegetation needed to be cleared.

The proposed new staff accommodation and solar plant at Drakensig is regarded as having a **moderate** site ecological importance and as such, has a **moderate** sensitivity rating. No watercourses are located nearby that could potentially be impacted upon.

Statement

The proposed development site is acceptable for development and is not fatally flawed in any way. The construction impacts, if effectively managed according to the mitigation measures proposed in this report, the specialist reports and the draft EMPr will have a predominately **low** residual significance rating. **Moderate** post mitigation significance ratings are anticipated in terms of pollution and contamination of the dam and drainage lines and disturbance of sensitive habitats due to the placement of the proposed walkway, loss of areas classified as CBA1 due to vegetation clearing. However, it should be noted that the riparian vegetation was rated as having a **moderate** sensitivity due to the fact that the area has already been disturbed by the earth dam inundating parts of the community and the current location of the existing dining room. Additionally, the first portion of the walkway will be located within an old fenceline and the walkway will be raised to limit the clearing of vegetation.

Similarly, operational impacts can also be mitigated and will result in **low** post mitigation significance ratings.

Positive impacts include job creation and employment opportunities for both the construction and operational phases, as well as, skills transfer and development. Other positive impacts include the generation of renewable energy and the reduction of reliance and use on Eskom power.

The placement of the proposed walkway will be elevated (where no support will be located within the watercourse). Owing to this elevation, limited riparian vegetation will need to be cleared. In light of the above discussion, it is recommended that the Preferred Alternative: Alternative 1 be supported on the condition that all mitigation measures mentioned in this report, the specialist reports and the draft EMPr are implemented and adhered to throughout the project lifecycle.

No-go alternative (compulsory)

The No-go Alternative implies that the proposed Expansion of Infrastructure at River Lodge and Drakensig in Kapama Private Game Reserve will not take place. In this scenario, the receiving environment will not be impacted upon negatively in any manner, with particular reference to protected and sensitive flora and surface water.

However, it should also be noted that no positive impacts will be realized such as job creation and employment opportunities, skills transfer and development.

This would not be ideal owing to the high unemployment rate in the local municipality and the fact that the majority of the population lives in a rural environment. Additionally, direct employment benefits and community beneficiation will not materialize.

In light of the above, as well as the fact that all negative impacts can be adequately mitigated and managed, it is not recommended that the No-go Alternative be supported.

For more alternatives please continue as alternative D, E, etc.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached YES hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

If "NO", indicate	the aspects	that should I	be assessed	further as	part of a	Scoping	and EIA	process	before	а
decision can be	made (list the	e aspects that	require furth	er assessr	nent):					

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the department in respect of the application:

The proposed Expansion of Infrastructure at River Lodge and Drakensig in Kapama Private Game Reserve in Kapama Private Game Reserve will take place in Granit Lowveld, which was assessed by Mucina & Rutherford (2006) as **vulnerable**.

As discussed in the preceding section, all significant negative impacts can be successfully mitigated and managed to acceptable levels (i.e. moderate to low) during all phases of the proposed development.

All mitigation measures as detailed in this BAR, the attached Specialist Impact Assessments and the Draft Environmental Management Programme (EMPr) must be implemented and adhered for the duration of the project lifecycle (i.e. during the planning, construction and operational phases).

In addition, the following specific recommendations apply:

Planning and Design Phase:

- All boreholes to be used for potable water extraction will be registered as per DWS requirements.
- The sensitivity map must be used as a decision tool to guide the layout design for the staff accommodation, solar facility, laundry room and walkway. Development in areas of high environmental sensitivity must be avoided.
- The development of the additional staff accommodation, laundry room, solar facility and walkway will

not commence until a walk-through inspection has been under taken by a qualified ecologist to identify any protected plants or plants species of conservation concern.

- No construction camps should be allowed in or within 20m of riparian areas.
- The trees *Elaeodendron transvaalense*, *Sclerocarya birrea subsp. caffra* and *Balanites maughamii subsp. maughamii* are nationally protected and *Spirostachys africana* is protected under provincial legislation. All development must take place around these trees and that they be left untouched. If this is unavoidable then destruction permits from the relevant authorities will have to be applied for.

Construction Phase:

- An independent Ecological Control Officer (ECO) will be appointed to oversee construction.
- Prior to any construction at any of the sites, an experienced botanist must conduct a walk-through, marking each plant species of conservation concern to be avoided or that may need to be relocated prior to any site clearance activity taking place.
- No construction camps are allowed in or within 20m of riparian areas.
- An Environmental Awareness Plan must be presented before the commencement of any construction activities. All construction staff must be aware of the biodiversity importance of the area (pertaining to all development areas)
- Remove only the vegetation where essential for construction and do not allow any disturbance to the adjoining natural vegetation cover. No vegetation outside of the demarcated construction areas may be removed whatsoever.
- Vegetation and other site features to be retained will be demarcated with danger tape and / or fencing as required. This barrier will be at least 2m from the stem of the specimen / feature.
- Plastic trays or liners will be used when mixing cement and concrete: Do not mix cement and concrete directly on the ground.
- A perimeter fence or suitable perimeter demarcation (such as steel droppers and hessian rope) must be erected around the construction works area to prevent access to adjacent bush and sensitive environs. Buffer areas and identified sensitive environments must be demarcated as No-go zones, where no construction activities or staff are permitted.
- No poaching or snaring of any game is permitted. The contractor must regularly undertake checks of the surrounding natural vegetation and along game paths to ensure no traps have been set. Remove and dispose of any snares or traps found on or adjacent to the site. The contractor must implement fines in this regard.
- All rehabilitation will make use of indigenous plant species, and preferably of species native to the study area and immediate surroundings. The species selected will strive to represent habitat types typical of the ecological landscape prior to construction.

Operational Phase:

- Water consumption will be monitored on a monthly basis to ensure that there is no undue waste. Keep up to date records of water monitoring
- A storm water management plan will be complied and adopted within 6 months of the EA being approved.
- KPGR will develop a management and monitoring programme for alien and invasive species 6 months from the date of the EA being granted. This programme will detail basic ID information, actions to prevent the establishment of invasive plants and methods of removal.
- No bush clearing is allowed, either to enhance game viewing, for firewood or for any other purpose (with the exception of the clearing of invasive species and the control of unnatural bush encroachment)
- Maintenance workers will not trample natural vegetation and work will be restricted to dedicated roads, paths and gardens within the development footprint.

- No unauthorised access is permitted to buffer areas or any natural areas outside of the facility footprint.
- No wood will be collected for firewood or any other purpose.
- All disturbed sites will be monitored every 3 months for colonisation by exotics or invasive plants and control these as they emerge.

Assuming that the above recommendations are implemented and adhered to, there is no reason why the proposed Expansion of Infrastructure at River Lodge and Drakensig as detailed in the Preferred Alternative: Alternative 1 should not take place. The Environmental Assessment Practitioner recommends that the development as proposed in the Preferred Alternative be supported.

YES

Is an EMPr attached? The EMPr must be attached as Appendix F.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix D.1.1: Heritage Impact Assessment for S24G Appendix D.1.2: Heritage Impact Assessment letter Appendix D.2: Ecological Impact Assessment Appendix D.3: Visual Impact Assessment

Appendix E: Public Participation

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Impact Tables

Appendix H: Other Information

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

- I, _____ declare that I –
- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) 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;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department 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 Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

Signature of the Environmental Assessment Practitioner:

Name of company:

Date: