

Draft Basic Assessment
Report

Proposed Extensions To River Lodge And WWTW Upgrades In Kapama Private Game Reserve, Limpopo Province

Prepared by:



February 2020

Contents

1. BACKGROUND.....	10
2. ACTIVITY DESCRIPTION	10
2. FEASIBLE AND REASONABLE ALTERNATIVES	11
3. ACTIVITY POSITION.....	11
4. PHYSICAL SIZE OF THE ACTIVITY	12
5. SITE ACCESS.....	13
6. SITE OR ROUTE PLAN	13
7. SITE PHOTOGRAPHS.....	14
8. FACILITY ILLUSTRATION.....	14
9. ACTIVITY MOTIVATION	14
3. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES.....	18
11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT	23
12. WATER USE	25
13. ENERGY EFFICIENCY.....	25
SECTION B: SITE/AREA/PROPERTY DESCRIPTION.....	26
1. GRADIENT OF THE SITE	27
2. LOCATION IN LANDSCAPE.....	27
3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE.....	28
4. GROUNDCOVER	29
5. LAND USE CHARACTER OF SURROUNDING AREA	29
6. CULTURAL/HISTORICAL FEATURES	30
7. BIODIVERSITY.....	31
8. VISUAL.....	35
SECTION C: PUBLIC PARTICIPATION.....	36
1. ADVERTISEMENT	36
2. CONTENT OF ADVERTISEMENTS AND NOTICES.....	37
3. PLACEMENT OF ADVERTISEMENTS AND NOTICES	37
4. DETERMINATION OF APPROPRIATE MEASURES.....	38
5. COMMENTS AND RESPONSE REPORT.....	38
6. AUTHORITY PARTICIPATION	38
7. CONSULTATION WITH OTHER STAKEHOLDERS.....	39
SECTION D: IMPACT ASSESSMENT	39
1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES.....	39
2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES.....	39
3. ENVIRONMENTAL IMPACT STATEMENT.....	45
SECTION E. RECOMMENDATION OF PRACTITIONER	47
SECTION F: APPENDIXES	48

FOREWORD

This report constitutes the **Draft Basic Assessment Report**, and has been circulated digitally for Stakeholder Comment on 20 February 2020.

NuLeaf Planning and Environmental would like to thank all Stakeholders for their participation and input into this process to date, and hereby 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&AP's and included in the Final Basic Assessment Report for submission to the Limpopo Department of Economic Development, Environment and Tourism.

All comments on the Draft BAR must be **in writing** and must reach NuLeaf by no later than close of business on **23 March 2020**.

Please mark all comments for the attention of:

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ACRONYMS AND ABBREVEATIONS

BA:	Basic Assessment
BAR:	Basic Assessment Report
CBA:	Critical Biodiversity Area
CMP:	Construction Management Plan
DWS:	South African National Department of Water and Sanitation
EA:	Environmental Authorisation
ECO:	Environmental Control Officer
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:	Assessment of the effects of a development on the environment.
Environmental Management Programme:	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 Officer (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 River Lodge located within Kapama Private Game Reserve. The expansion will consist of the construction of a new dining room and approximately 20 tourism accommodation suites whereby the new additions will be powered via solar power.

Additionally, new wastewater treatment works will be constructed at the four lodges and staff village within Kapama Private Game Reserve. The WWTW proposed is the 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 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.

Eight 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 28 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 28 potentially occurring species, 17 are considered to be **SCC** with only nine 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).

Both the dining room area site and the spa accommodation site is regarded as having a **moderate** biodiversity value. The proposed new spa suites will respect the 32 m buffer of the non-perennial river, however the proposed new dining room will be located over an episodic drainage line near the top end of the earthen dam and is located within the high water mark of the dam and the 1:100 flood line. However, it should be noted that the proposed new dining room will be elevated on stilts and thereby be above the dam HWM and 1:100 year flood line. Raising the dining room will also minimize the amount of riparian vegetation needed to be cleared. All proposed new WWTW will be located outside of the flood lines and 32 m buffers.

No cultural heritage sites were recorded for the site.

New waste water treatment works will be constructed at River Lodge, Buffalo Camp, Karula and Southern Camp, as well as, at the Drakensig Staff Village. The WWTW proposed is the 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 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 EMP will have a predominately **low** residual significance rating. **Moderate** post mitigation significance ratings are anticipated in terms of loss of areas classified as CBA1 due to vegetation clearing, disturbance of sensitive habitats and the pollution and contamination of the dam/drainage lines due to placement of infrastructure.

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 avoidance/ reduction in ground and surface water contamination due to aging / leaking current sewage treatment works.

It is recommended that the proposed Extensions to River Lodge and the WWTW Upgrades at Kapama Private Game Reserve 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.



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

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.

File Reference Number:

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NEAS Reference Number:

(For official use only)

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:-

<p><u>Postal Address:</u> Central Administration Office Environmental Impact Management P. O. Box 55464 POLOKWANE 0700</p>	<p><u>Physical Address:</u> Central Administration Office Environmental Affairs Building Cnr Suid and Dorp Streets POLOKWANE 0699</p>
<p>Queries should be directed to the Central Administration Office: Environmental Impact Management:-</p> <p>For attention: Mr E. V. Maluleke Tel: (015) 290 7138/ (015) 290 7167 Fax: (015) 295 5015 Email: malulekeev@ledet.gov.za</p>	

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

SECTION A: ACTIVITY INFORMATION

1. BACKGROUND

In September 2018, a Draft Basic Assessment Report inclusive of specialist studies was submitted to the Department for the proposed extensions to River Lodge. These extensions entailed the construction of a new dining room area and approximately 20 tourism accommodation suites. Subsequent to the submission, it was brought to our attention that Environmental Authorization had not been obtained for the initial construction of River Lodge and we decided to withdraw our application.

A Section 24G application (ref 12/1/9/S24G-M35) was then undertaken in order to obtain environmental authorization *ex post facto* for the commercial lodges, staff accommodation and other management infrastructure within Kapama Private Game Reserve. Environmental authorization was granted in December 2019.

A condition of the EA was that new facultative aerobic pond systems must be constructed for each of the sites within one year and 6 months from the date of the EA. However, with new technologies emerging daily, a decision was taken to construct new waste water treatment package plants as they are considered to be more environmentally friendly and best practice. To this end, a new basic assessment is being undertaken for the proposed extensions to River Lodge and the WWTW upgrades to the lodges and staff village.

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.

2. ACTIVITY DESCRIPTION

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

The proposed development entails the expansion of River Lodge and WWTW Upgrades within Kapama Private Game Reserve. The extensions to River Lodge will consist of the construction of a new dining room and approximately 20 tourism accommodation suites. The proposed new dining room will be located just north of the existing dining room complex over a dry river bed. The new dining room will be elevated on stilts and a raised wooden walkway will join the existing dining complex with the new dining complex.

The proposed new spa suites at River Lodge will be located to the east of the existing spa suites and will join to the existing building by a raised wooden walkway.

Power will be supplied to these two new additions via solar panels.

Additionally, new wastewater treat works will be constructed at the four lodges (River Lodge, Buffalo Camp, Karula and Southern Camp) and staff village within Kapama Private Game Reserve. The WWTW proposed is the Moving bio-bed Reactor. This system consists of two reactor tanks with the bacteria required for the process, fixed on

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.

carrier media, and a clarifier and is fully automated. All efforts will be made to locate the new WWTW within the existing footprints of the current works, however, if this is not possible then the existing footprint will be extended slightly to accommodate the package plant. At some of the lodges, existing infrastructure (such as pump houses and sand filters) will be utilized for the new WWTW and thereby reducing the footprint.

All oxidation ponds/ evaporation dams will be decommissioned, capped and the areas rehabilitated.

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.

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 extensions due to the fact the River Lodge is an established venue and, therefore, the extensions need to take place within the lodge footprint. Additionally, all of the services are already in place and just need to be extended to the two (2) new development sites.

Similarly, the new WWTWs need to be within the same development footprint as the existing WWTWs so that certain existing infrastructure can be reused and repurposed.

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

3. ACTIVITY POSITION

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):

Longitude (E):

Additional Spa Units
 New Dining Room
 WWTW: River Lodge
 WWTW: Karula
 WWTW: Southern Camp
 WWTW: Buffalo Camp
 WWTW: Drakensig Staff Village

24°	25'	37.60"	31°	1'	47.39"
24°	25'	35.49"	31°	1'	36.84"
24°	25'	38.96"	31°	1'	30.12"
24°	27'	21.10"	31°	6'	27.56"
24°	27'	18.71"	31°	5'	12.99"
24°	27'	59.03"	31°	3'	10.63"
24°	26'	6.34"	31°	1'	1.58"

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only route alternative)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

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:

Size of the activity:

Additional Spa Units
 New Dining Room
 WWTW: River Lodge
 WWTW: Karula
 WWTW: Southern Camp
 WWTW: Buffalo Camp
 WWTW: Drakensig Staff Village

1200 m ²
850 m ²
250 m ²
200 m ²
200 m ²
200 m ²
200 m ²

or,

for linear activities:

Length of the activity:

Alternative:

Alternative A1 (preferred activity alternative)

	m
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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)

	m ²
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Alternative A2 (if any)

	m ²
--	----------------

Alternative A3 (if any)

	m ²
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5. SITE ACCESS

Does ready access to the site exist?

YES	
m	

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 all of the Lodges and 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 30 million
What is the expected yearly income that will be generated by or as a result of the activity?	R 1,8 million
Will the activity contribute to service infrastructure?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Is the activity a public amenity?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
How many new employment opportunities will be created in the development phase of the activity?	109
What is the expected value of the employment opportunities during the development phase?	R 7 million
What percentage of this will accrue to previously disadvantaged individuals?	100%
How many permanent new employment opportunities will be created during the operational phase of the activity?	70
What is the expected current value of the employment opportunities during the first 10 years?	R 14 million
What percentage of this will accrue to previously disadvantaged individuals?	100%

9(b) Need and desirability of the activity

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

NEED:			
i.	Was the relevant municipality involved in the application?	YES	
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	YES	
	<p>Maruleng Local Municipality Integrated Development Plan (IDP) recognizes that the tourism industry is a key sector with significant opportunities for expansion and growth. Maruleng Local Municipality boosts some of Limpopo's prime tourist attractions including the Kruger National Park, Timbavati Private Reserve and Blyde River Canyon.</p> <p>Therefore increasing the tourism offerings in the region, as well as, diversifying the tourism products falls within the IDP.</p>		
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		

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, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?	YES	
	<p>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 extensive occurrence of private game reserves and hence an international tourist destination. Kapama PGR is located just outside of Hoedspruit and is considered an international tourist destination.</p> <p>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 the River Lodge in Kapama Private Game Reserve falls under.</p>		
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
	The benefits of the proposed development are positive, contributing to economic growth and		

	diversification of the both the Kapama Private Game Reserve and the regions tourism offerings. Additionally, approximately 109 jobs will be created during the construction phase and approximately 70 jobs will be created in the operational phase which is ideal in an area such as Maruleng where the unemployment rate is high.	
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:	
v.	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 another block of spa suits and dining room area will not have any additional impacts on the sense of place. Similarly, the construction of new WWTW in the form of package plants will have a positive impact on the sense of place as the unsightly oxidation ponds will be capped and rehabilitated.	
vi.	Will the proposed land use / development set a precedent?	NO
vii.	Will any person's rights be affected by the proposed land use / development?	NO
viii.	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 built 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.	
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.	

BENEFITS:		
i.	Will the land use / development have any benefits for society in general?	YES
ii.	<p>Explain:</p> <p>The benefits of proposed project to the society in general include the following:</p> <ul style="list-style-type: none"> • 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:	

	<p>The proposed extension of River lodge will benefit the local communities in terms of employment opportunities and job creation. It is estimated that approximately 109 jobs will be created during the construction phase and 70 jobs during the operational phase. Skills development and training will also be a benefit. 100% of this labour will be sourced from previously disadvantaged individuals from the local communities.</p>
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3. 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:

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: <ul style="list-style-type: none"> ▣ The soil mantle is protected and conserved, ▣ The natural water sources are protected, ▣ 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. 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.	Department of Environmental Affairs	2003
National	The purpose of the Biodiversity Act is to provide for the management and conservation of	Department of	2004

Environmental Management: Biodiversity Act (Act No. 10 of 2004):	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 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.	Environmental Affairs	
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 throughout 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
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 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	Department of Water Affairs	1997

	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
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 environmental assessment process for the proposed development.	Department of Environmental Affairs	1992
REGIONAL PLANNING POLICIES			
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. The Marluleng Municipality is largely rural in nature with tourism and agriculture as the	Mopani District Municipality	2014

	<p>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.</p> <p>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.</p>		
Maruleng Local Municipality Integrated Development Plan	<p>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.</p> <p>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.</p>	Maruleng Local Municipality	2016-2017/21
Kruger to Canyons Biosphere Reserve	<p>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.</p> <p>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.</p> <p>The proposed site falls within the buffer zone of the K2C.</p>	Kruger to Canyons Biosphere Reserve	
Kapama Private Game Reserve Management Plan	<p>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</p>	Kapama Private Game Reserve	2012

	<p>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.</p> <p>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.</p>		
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11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

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

YES	
	< 30 m ³

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.

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

Inert building rubble will be used as backfill in the site as necessary.
--

Will the activity produce solid waste during its operational phase?

YES	
	< 30 m ³

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. No solid waste is sent to a landfill.

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

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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?

	NO
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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?

	NO
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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?

	NO
	m ³
Yes	

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.

New waste water treatment works will be constructed at River Lodge, Buffalo Camp, Karula and Southern Camp, as well as, at the Drakensig Staff Village. The WWTW proposed is the 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.

The treatment process is broken down into the following phases:

- Supply of raw effluent to the plants
Existing pumps will pump the sewage from various sources to the new treatment plant sites
- Pre-treatment
For each of the pumped lines there is already a grit and solids removal structure in place. Grit is removed on a regular basis and disposed as per regulation as solid waste. The other organic solids accumulate in the septic tanks where it biodegrades and the semi-stabilized sludge is pumped from time to time by Honey Sucker and disposed on the existing drying beds. Dry sludge is raked together and mixed with grass cuttings to make compost which is then used in gardens.
- Balancing Tank
There will be a balancing tank at each plant, big enough to take a full one hour of a sustained peak of 6x ADWF.
- Treatment Process
An ultrasonic inlet flow meter provides flow records and is used to automatically adjust the chemical dosing rates according to flow.

The first treatment stage is the anaerobic section. This is necessary for the removal of phosphates. The second stage is the anoxic reactor. In this reactor, nitrified effluent (nitrate) is converted to Nitrogen gas that escapes, while the bacteria utilizes the organics in the effluent simultaneously. This reactor is mixed with a small electrical mixer. The third stage is an aerated tank, where the organic material and ammonia is converted. Aeration is done with a blower. All the reactors contain the special bio-carrier media. There is a recycling pump that recycle process water from the 3rd to the 2nd stage to enhance nitrogen removal.

- Clarification
The last stage consists of a high rate clarifier with inclined media. In this stage the fine biomass is separated and settles to the bottom the conical clarifier. The water overflowing here is very close to general standards, except that the TSS might still be high. Sludge is withdrawn periodically by an automatic sludge valve and is discarded to the sludge drying bed.
- Sludge handling
Sludge drying beds will be constructed. Dried sludge will be raked off and mixed with a bulking agent like cut grass to make compost.
- Final Chlorination
The clarified water is chlorinated and gravitates to a treated water tank that acts as chlorine contact tank. The minimum contact time is 20 minutes. The overflow of this tank will then irrigated.

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 will be used for irrigation in and around the lodge sites.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	<input type="checkbox"/>
<input type="checkbox"/>	NO

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?

YES	<input type="checkbox"/>
<input type="checkbox"/>	NO

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)

<input type="checkbox"/> municipal	<input type="checkbox"/> water board	<input type="checkbox"/> groundwater	<input type="checkbox"/> river, stream, dam or lake	<input type="checkbox"/> other	<input type="checkbox"/> the activity will not use water
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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:

500 000 Litres
YES <input type="checkbox"/>

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

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, however, an application is in process 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 Expansion to River Lodge 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:

All new power requirements for the dining room and additional spa suites will be via solar 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 C Copy No.
(e.g. A):

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
Portion 228 of the farm Guernsey 81 KU
Remaining extent of Portion 4 of the farm Moria 83 KU
Portion 213 (ptn of Ptn 194) of the Farm Guernsey 81KU

(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 zoning:

Agriculture

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?
Must a building plan be submitted to the local authority?

<input type="checkbox"/>	NO
YES <input type="checkbox"/>	<input type="checkbox"/>

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 WGS84 spheroid 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
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Buffalo Camp:

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
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Karula:

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
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Southern Camp:

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
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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	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	X
2.2 Plateau		2.7 Undulating plain / low hills	X
2.3 Side slope of hill/mountain		2.8 Dune	
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)?

	Spa Accommodation units:	New Dining Room Area:	River Lodge WWTW:
Shallow water table (less than 1.5m deep)	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/>	<input type="checkbox"/> NO
Dolomite, sinkhole or doline areas	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Seasonally wet soils (often close to water bodies)	<input checked="" type="checkbox"/> YES <input type="checkbox"/>	<input checked="" type="checkbox"/> YES <input type="checkbox"/>	<input type="checkbox"/> NO
Unstable rocky slopes or steep slopes with loose soil	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Dispersive soils (soils that dissolve in water)	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Soils with high clay content (clay fraction more than 40%)	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Any other unstable soil or geological feature	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
An area sensitive to erosion	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO

	Buffalo Camp WWTW:	Karula WWTW:	Southern Camp WWTW:
Shallow water table (less than 1.5m deep)	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Dolomite, sinkhole or doline areas	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Seasonally wet soils (often close to water bodies)	<input checked="" type="checkbox"/> YES <input type="checkbox"/>	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/>
Unstable rocky slopes or steep slopes with loose soil	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Dispersive soils (soils that dissolve in water)	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Soils with high clay content (clay fraction more than 40%)	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Any other unstable soil or geological feature	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
An area sensitive to erosion	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO

	Drakensig Staff WWTW:
Shallow water table (less than 1.5m deep)	<input type="checkbox"/> NO

Dolomite, sinkhole or doline areas	NO
Seasonally wet soils (often close to water bodies)	NO
Unstable rocky slopes or steep slopes with loose soil	NO
Dispersive soils (soils that dissolve in water)	NO
Soils with high clay content (clay fraction more than 40%)	NO
Any other unstable soil or geological feature	NO
An area sensitive to erosion	NO

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. GROUND COVER

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	Cultivated land	Paved surface	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	X	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	X
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	X
5.17 Plantation		5.38 Nature conservation area	X
5.18 Agriculture		5.39 Mountain, koppie or ridge	X
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	X
5.21 Dam or Reservoir	X	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?

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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	

If 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:

<p>Two heritage impact assessment were undertaken, one in August 2018 for the River Lodge Extensions and one in April 2019 for the S24G at Buffalo Camp, Karula, Southern Camp and Drakensig Staff Village.</p> <p>No archaeological (both Stone Age and Iron Age) or historical artefacts, assemblages, features, structures or settlements were recorded during the survey of the project footprint.</p> <p>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.</p> <p>Please refer to Appendix D.1.1 and D.1.2 for the full reports.</p>

Will any building or structure older than 60 years be affected in any way?	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	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 for Buffalo Camp, Karula, Southern Camp and Drakensig Staff Village.

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. Due to large tracts of this vegetation type occurring in public and private nature reserves in South Africa, including the Kruger National Park, it is considered **Well Protected** and has a national and provincial ecosystem status of **Least Concern**. The study area is not situated within any Threatened Ecosystems as listed in Government Gazette No. 34809 of 9 December 2011 (DEAT, 2011) nor within any of southern Africa's floristic centres of endemism.

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.

Five untransformed vegetation communities were identified within the study area 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 Kapama. 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 sites contain Riparian Thicket:

1. River Lodge
2. Buffalo Camp

Approximately 7 ha of this vegetation community has been impacted by the above-listed developments.

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*, *Mystroxyloa 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 forskoolii*, *Barleria elegans*, *B. obtusa* and * *Ageratum conyzoides*. Grasses dominate the ground layer, especially *Panicum maximum* and *Eragrostis trichophora*.

A total of 95 species (48% of the entire list) was recorded from Riparian Thicket, the second highest species list of the four vegetation communities present. Species fidelity, which is closely linked to community uniqueness, is high, with 27 species (28% of the community list) occurring nowhere else in the study area.

Five 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** ES through a combination of High Conservation Value and Medium RSI. It is situated in a CBA1 Irreplaceable area, houses nationally threatened mammal and bird species and is an important community for faunal migration corridors.

Combretum zeyheri – *Eragrostis rigidior* Plains Woodland

This vegetation community occurs to the east of the River Lodge, in the area designated for the construction of additional guest rooms. Vegetation structure can best be described as Short to Tall Mid-dense Woodland (Edwards, 1983). Plains Woodland covers approximately 3800 m², or 84 % of the area surveyed.

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

Three conservation-important species were recorded. One of these is listed by the IUCN as **Near Threatened**, namely *Dalbergia melanoxylon*, although this species has a national status of **Least Concern**. Two species are **protected** under the National Forests Act (No. 30 of 1998): *Sclerocarya birrea* subsp. *caffra* and *Balanites maughamii* subsp. *Maughamii*.

Combretum erythrophyllum – Diospyros mespilliformis Riparian Forest

This vegetation community occurs along the Klaserie River in the eastern border of Kapama. The following Application Sites are situated within Riparian Forest:

1. Karula Lodge

Vegetation structure is mostly Tall Forest (sensu Edwards, 1983). Tall riparian trees such as *Combretum erythrophyllum* and *Diospyros mespilliformis* dominate in the canopy, while other common trees are *Ficus sycomorus*, *Schotia brachypetala*, *Acacia xanthophloea* and *A. robusta*. Smaller trees and woody shrubs that are commonly encountered in the understory include *Searsia gueinzii*, *Mystroxydon aethiopicum*, *Azima tetraacantha* and *Gymnosporia senegalensis*. The ground layer is sparse in places due to the dense canopy and mid-stratum, but the herbs *Barleria elegans* and *Commelina benghalensis*, as well as the shade-loving grasses *Panicum deustum* and *P. maximum* occur throughout. In places, the sandier riverbed is dominated by the reed *Phragmites australis*, while various alien invasive species such as **Xanthium spinosum*, **Sesbania punicea*, **Ricinus communis* and **Lantana camara* are well established. The sedges *Cyperus dives* and *C. sexangularis* are evident where muddier sediments have deposited, as well as the grass *Leersia hexandra*.

Species fidelity, which is closely linked to community uniqueness, is **high** with 18 species (30% of the community list) occurring nowhere else in the study area.

Six **conservation-important** species were recorded from this community, although all are rarely encountered within the community and none are considered to be national Species of Conservation Concern (SCC) as defined by Raimondo et al. (2009). The International Union for Conservation of Nature (IUCN) considers the epiphyte *Ansellia africana* to be **Vulnerable (VU)** and the small tree *Dalbergia melanoxylon* to be **Near Threatened (NT)**. The trees *Sclerocarya birrea*, *Philenoptera violacea* and *Breonadia salicina* are **protected** under the National Forests Act (No. 30 of 1998, NFA), while the tree *Spirostachys africana* is **protected** under the Limpopo Environmental Management Act (No. 7 of 2003). Riparian Forest was assessed as having **Medium-High Ecological Sensitivity (ES)** from a combination of Medium RSI value and Very High Conservation Value. Riparian forest is situated in a **CBA1** Irreplaceable area and is an important community for faunal migration corridors and habitat for specialised and VU species such as Nile Crocodile *Crocodylus niloticus* and Hippopotamus *Hippopotamus amphibius*.

Combretum apiculatum – Sclerocarya birrea Closed Woodland

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

1. River Lodge (incl. staff accommodation and waste water treatment works)
2. Karula Lodge (incl. staff accommodation)
3. Southern Camp (incl. staff accommodation and waste water treatment works)
4. Drakensig Staff Quarters and Workshop
5. Buffalo Camp

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*.

Species fidelity is high, with 36 species occurring nowhere else in the study area. 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.

Acacia nilotica – Dichrostachys cinerea Degraded Woodland

Acacia nilotica – Dichrostachys cinerea Degraded Woodland occurs in the southern parts of Kapama, in areas that were possibly historically old lands or other degraded areas. Vegetation structure is Short Closed Woodland (Edwards, 1983). The following Application Sites are situated within Degraded Woodland:

1. Karula Waste Water Pond

The dominant canopy species in this community are the pioneer trees *Acacia nilotica* and *A. tortilis*, while other prevalent trees and shrubs include *Dichrostachys cinerea*, *Ziziphus mucronata*, *Combretum hereroense* and *C. imberbe*. A number of alien herbs dominate the ground layer, including **Richardia brasiliensis*, **Acanthospermum australe*, **Alternanthera pungens*, **Bidens pilosa* and **Zinnia peruviana*. Grasses are sparse due to overgrazing but include *Heteropogon contortus*, *Cynodon dactylon* and *Eragrostis superba*.

Only two **conservation-important** species were recorded from this community, namely the trees *Sclerocarya birrea* and *Combretum imberbe* which are **protected** under the NFA. Degraded Woodland was assessed as having **Medium ES** through a combination of High Conservation Value and Medium RSI. It is situated in a CBA Irreplaceable area and houses nationally threatened mammal and bird species.

Fauna

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 28 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 28 potentially occurring species, 17 are considered to be **SCC** with only nine 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*.

Avifauna

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 32 conservation-important birds potentially occur within the study area. Twenty-four 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 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 two **conservation-important** reptiles potentially occur. Only one of these is considered a **SCC**, namely Nile Crocodile *Crocodylus niloticus*, which is also **protected** under NEMBA ToPS. Although not recorded during fieldwork, this species is confirmed from Kapama.

Frogs

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.2.1 and D.2.2 for the full reports.

8. VISUAL

A visual impact assessment was undertaken by NuLeaf Planning and Environmental in September 2018 in order to determine the possible visual impact of the proposed Extensions to River Lodge. A second VIA was conducted in May 2019 for the Section 24G for all built infrastructure in KPGR.

Land use within the study area is predominately private game farms and is mainly used for conservation and tourism. The study area is situated within the Granite Lowveld vegetation type, which is in the Lowveld Savannah Bioregion of the Savanna Biome.

The majority of the study area is sparsely populated, with the highest concentration of people living in the town of Hoedspruit. The study area consists of a landscape that can be described as remote due to its considerable distance from any major metropolitan centres or populated areas. Settlements, where they occur, are usually rural homesteads and farmsteads.

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.

Overall, the Visual Absorption Capacity (VAC) of the site and surrounds is high due to the nature of the vegetation (i.e. thicket and woodland).

Majority of the visual impact will occur within the boundaries of the Kapama Private Game Reserve, with a low visual impact occurring in certain areas to the north outside of the Reserve. Some visual impact has already occurred on the site as a result of the existing and well established River Lodge. 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.3.1 and D.3.2 for the full reports.

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, 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 29 November 2019.
- A printed advertisement was placed in the Hoedspruit Herald, a local publication, on the 29 November 2019.
- Site notices were placed at the main entrance to KPGR and at the four lodges (River Lodge, Buffalo Camp, Karula and Southern Camp) on 29 November 2019.

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.

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.

Has any comment been received from stakeholders?

	NO
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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 (Preferred Alternative)			
Planning and Design Phase	<i>Direct impacts:</i>		
	Ground Water		
	None.		
	Surface Water		
	Risk to ecological function of the drainage lines and dam due to possible placement of structures and	36 M	• EMPr section 7.1

	infrastructure within the habitat.		• EMPr section 7.2
	Risk to hydrological function (quality and fluctuation properties) along the drainage lines and dam due to activity and disturbance near the watercourse.	36 M	
	Soil		
	Erosion risk to soils	27 L	• EMPr section 7.1 • EMPr section 7.2
	Air		
	None.		
	Biodiversity (Flora)		
	Risk to critical biodiversity areas	33 M	• EMPr section 7.1
	Risk to Granite Lowveld vegetation	18 L	• EMPr section 7.2
	Risk to sensitive habitats	30 L	
	Risk to Conservation Important Species and protected trees	30 L	
	Biodiversity (Fauna)		
	Risk of habitat fragmentation	27 L	• EMPr section 7.1 • EMPr section 7.2
	Land use and agricultural potential		
	None.		
	Heritage		
	None.		
	Visual		
	Risk to visual quality of the surrounding area and sense of place due to the development of structures and infrastructure within an otherwise natural environment.	18 L	• EMPr section 7.2 • EMPr section 7.3
	Socio-economic		
	None.		
	Municipal services and traffic		
	None.		
	Indirect impacts:		
	None.		
	Cumulative impacts:		
	Biodiversity (Flora)		
	Cumulative loss of Granite Lowveld vegetation	18 L	• EMPr section 7.1 • EMPr section 7.2
	Cumulative reduction of Conservation Important Species and protected trees	28 L	
	Biodiversity (Fauna)		
	Cumulative loss of faunal habitat	20 L	• Same as above
Construction Phase	Direct impacts:		
	Ground water		
	Depletion of ground water	14 L	• EMPr section 8.1 • EMPr section 8.2
	Pollution and contamination of ground water	18 L	• EMPr section 8.3 • EMPr section 8.7
	Surface water		
	Disturbance and loss of ecological function of the dam and drainage lines	24 L	• EMPr section 8.1 • EMPr section 8.2
	Pollution and contamination of surface	36	• EMPr section 8.3

water.	M	<ul style="list-style-type: none"> • EMPr section 8.4 • EMPr section 8.5 • EMPr section 8.6 • EMPr section 8.7 • EMPr section 8.8 • EMPr section 8.9 • EMPr section 8.10
Soil		
Soil contamination and pollution.	18 L	• Same as above
Soil erosion via wind and rain.	18 L	
Air		
Air pollution due to emissions from construction vehicles and equipment.	24 L	<ul style="list-style-type: none"> • EMPr section 8.2 • EMPr section 8.4 • EMPr section 8.5 • EMPr section 8.7 • EMPr section 8.8 • EMPr section 8.9 • EMPr section 8.10
Generation of dust owing to construction activities.	21 L	
Smoke generated from open fires used by workers for heating and cooking.	14 L	
Biodiversity (Flora)		
<i>Removal of exotic and declared invader species (positive impact).</i>	30 L	<ul style="list-style-type: none"> • EMPr section 8.1 • EMPr section 8.2 • EMPr section 8.3 • EMPr section 8.4 • EMPr section 8.5 • EMPr section 8.6 • EMPr section 8.7 • EMPr section 8.8 • EMPr section 8.9 • EMPr section 8.10
Loss of critical biodiversity areas	40 M	
Loss of Granite Lowveld vegetation and associated loss of species richness.	28 L	
Disturbance of sensitive habitats.	33 M	
Destruction and damage to Conservation Important Species and protected trees	20 L	
Increase in exotic vegetation/alien species and bush encroachment into disturbed soils and areas.	26 L	
Biodiversity (Fauna)		
Loss of faunal habitat which acts as a wildlife corridor	22 L	• Same as above
Loss of general faunal habitat and ecological connectivity.	20 L	
Fauna mortality	18 L	
Poaching and snaring of faunal species by construction workers.	27 L	
Increased opportunity for smuggling of poached items.	27 L	
Land use and agricultural potential		
None		
Heritage		
<i>Possible discovery of new important artefacts (positive impact)</i>	16 L	<ul style="list-style-type: none"> • EMPr section 8.1 • EMPr section 8.2
Damage to and / or destruction of archaeological, paleontological or historical artefacts unearthed during construction.	8 N	
Visual		
Visual impact of construction, lighting and dust on sensitive visual receptors owing to the presence of construction equipment, camps and workers.	21 L	<ul style="list-style-type: none"> • EMPr section 8.1 • EMPr section 8.2 • EMPr section 8.3 • EMPr section 8.4 • EMPr section 8.5
Visual impact of construction, lighting	16	

and dust on conservation areas within the region (Kapama Reserve).	L	<ul style="list-style-type: none"> • EMPr section 8.6 • EMPr section 8.7 • EMPr section 8.8 • EMPr section 8.9 • EMPr section 8.10
Socio-economic		
<i>Stimulation of the local economy, especially the local service delivery industry (positive impact)</i>	24 L	<ul style="list-style-type: none"> • EMPr section 8.1 • EMPr section 8.2 • EMPr section 8.7
<i>Short term employment and business opportunities and the opportunity for skills development and on-site training. (Positive impact).</i>	36 M	<ul style="list-style-type: none"> • EMPr section 8.8 • EMPr section 8.9
Noise, dust and safety impacts and disturbance to adjacent landowners	21 L	
An increase in construction workers and associated increase in social problems for the community	16 L	
Increase in casual workers and associated increase in poaching.	24 L	
Increased risk of veld fires	21 L	
Municipal services and traffic		
Increase in traffic on the surrounding local	21 L	<ul style="list-style-type: none"> • EMPr section 8.1 • EMPr section 8.2
Increase in the number and frequency of construction vehicles accessing the site	21 L	<ul style="list-style-type: none"> • EMPr section 8.7 • EMPr section 8.8
Indirect impacts:		
Biodiversity (Flora)		
Loss of floral biodiversity, Conservation Important Species and protected trees	22 L	<ul style="list-style-type: none"> • As above
Biodiversity (Fauna)		
Loss of faunal biodiversity	20 L	<ul style="list-style-type: none"> • As above
Socio-economics		
Loss of property and threat to human life	16 L	<ul style="list-style-type: none"> • As above
Traffic and Services		
Degradation of local roads due to the increase in the numbers of heavy vehicles.	21 L	<ul style="list-style-type: none"> • As above
Cumulative impacts:		
Biodiversity (Flora)		
Cumulative loss of Granite Lowveld vegetation and associated loss of species richness.	27 L	<ul style="list-style-type: none"> • EMPr section 8.1 • EMPr section 8.2 • EMPr section 8.3
Loss of critical biodiversity areas	33 M	<ul style="list-style-type: none"> • EMPr section 8.4 • EMPr section 8.5
Cumulative loss of ecological function of sensitive habitats.	39 M	<ul style="list-style-type: none"> • EMPr section 8.6 • EMPr section 8.7
Cumulative reduction and damage to Conservation Important Species and protected trees.	24 L	<ul style="list-style-type: none"> • EMPr section 8.8 • EMPr section 8.9 • EMPr section 8.10
Biodiversity (Fauna)		
Cumulative loss of faunal habitat	24 L	<ul style="list-style-type: none"> • As above
Socio-economic		
<i>Community upliftment and the opportunity to increase the skill level in the area (positive impact).</i>	24 L	<ul style="list-style-type: none"> • EMPr section 7.4 • EMPr section 8.1 • EMPr section 8.2 • EMPr section 8.7

			<ul style="list-style-type: none"> • EMPr section 8.8 • EMPr section 8.9
	Services and traffic		
	Cumulative increase in traffic and the resultant noise, dust, and safety impacts on other road users	16 L	<ul style="list-style-type: none"> • EMPr section 8.1 • EMPr section 8.2 • EMPr section 8.7 • EMPr section 8.8
Operational Phase	Direct Impacts:		
	Ground water		
	Depletion of ground water resources (water quality)	18 L	<ul style="list-style-type: none"> • EMPr section 9.1 • EMPr section 9.2
	Pollution and contamination of ground water. <i>This impact is expected to be lower than anticipated owing to the decommissioning of the aging/leaking oxidation ponds and implementation of the new WWTW.</i>	22 L	<ul style="list-style-type: none"> • EMPr section 9.3 • EMPr section 9.4 • EMPr section 9.5
	Surface water		
	Disturbance and loss of ecological function of the habitat (physical structure) along the dam and drainage lines. <i>This impact is expected to be lower than anticipated owing to the decommissioning of the aging/leaking oxidation ponds and implementation of the new WWTW.</i>	18 L	<ul style="list-style-type: none"> • As above
	Pollution and contamination of surface water. <i>This impact is expected to be lower than anticipated owing to the decommissioning of the aging/leaking oxidation ponds and implementation of the new WWTW.</i>	20 L	
	Disturbance and loss of hydrological function (quality and fluctuation properties) along the dam and drainage lines. <i>This impact is expected to be lower than anticipated owing to the decommissioning of the aging/leaking oxidation ponds and implementation of the new WWTW.</i>	18 L	
	Soil		
	Pollution and contamination of the soil	18 L	<ul style="list-style-type: none"> • As above
	Soil erosion	18 L	
	Air		
	Air pollution by emissions from increased numbers of game drive vehicles and private vehicles.	33 M	<ul style="list-style-type: none"> • EMPr section 9.5
	Biodiversity (Flora)		
Loss of Granite Lowveld vegetation and associated loss of species richness	18 L	<ul style="list-style-type: none"> • EMPr section 9.1 • EMPr section 9.2 • EMPr section 9.3 	
Loss of critical biodiversity areas	22 L	<ul style="list-style-type: none"> • EMPr section 9.4 • EMPr section 9.5 	
Disturbance of sensitive habitats	27 L	<ul style="list-style-type: none"> • EMPr section 9.6 	

Destruction and damage to Conservation Important Species and protected trees	20 L	
Increase in exotic vegetation/alien species and bush encroachment into disturbed soils and areas in the event that the rehabilitation process is not successful	22 L	
Biodiversity (Fauna)		
Loss of faunal habitat.	18 L	• As above
Faunal disturbances and changes in distribution and abundance.	27 L	
Faunal mortality	20 L	
Poaching and snaring of fauna by staff.	24 L	
Land use and agricultural potential		
None.		
Visual		
Potential visual impact on sensitive visual receptors in close proximity to the proposed developments.	18 L	• EMPr section 9.5
Potential visual impact on sensitive visual receptors within the region	20 L	
Potential visual impact on protected and conservation areas (i.e. the Kapama Reserve) within the study area.	16 L	
Potential visual impact of the solar panels on sensitive visual receptors in close proximity thereto	16 L	
The potential visual impact of safety and security lighting of the developments at night on sensitive visual receptors in close proximity	20 L	
Socio-economic		
<i>Stimulation of the local economy, especially the local service delivery industry (positive impact)</i>	33 M	• As above
<i>Creation of long term employment and business opportunities as well as opportunities for skills development and transfer (positive impact)</i>	56 H	
<i>Creation of opportunities for local SMME's (positive impact)</i>	48 M	
Impact on adjacent land uses and activities	8 N	
Service and traffic		
Increase in traffic on the surrounding roads	30 L	• EMPr section 9.5
Increase in the number and frequency of vehicles accessing the site	20 L	
Indirect impacts:		
Visual		
The potential visual impact of the development on the visual character of the landscape and sense of place of the region (particularly the Waterberg Biosphere Reserve).	18 L	• As above
Cumulative impacts:		
Biodiversity (Flora)		
Cumulative loss of Granite Lowveld	22	• EMPr section 9.1

vegetation and associated loss of species richness.	L	<ul style="list-style-type: none"> • EMPr section 9.2 • EMPr section 9.3
Cumulative disturbance of sensitive habitats	22 L	<ul style="list-style-type: none"> • EMPr section 9.4 • EMPr section 9.5
Cumulative reduction and damage to Red data species and protected trees.	28 L	<ul style="list-style-type: none"> • EMPr section 9.6
Visual		
Accumulation of built infrastructure in a natural environment.	22 L	<ul style="list-style-type: none"> • EMPr section 9.5
Socio-economic		
<i>Creation of permanent employment and skills and development opportunities for members from the local community and creation of additional business and economic opportunities in the area. (positive impact)</i>	33 M	<ul style="list-style-type: none"> • As above
<i>Promotion of social and economic development in the local communities (positive impact)</i>	27 L	
Services and traffic		
Cumulative increase in traffic on the surrounding roads	18 L	<ul style="list-style-type: none"> • EMPr section 7.1 • EMPr section 9.2
Cumulative increase in the number and frequency of vehicles accessing the site	22 L	<ul style="list-style-type: none"> • EMPr section 9.5
Waste disposal practices will have an accumulative effect on the local landfill site's capacity to absorb waste.	22 L	
Decommissioning phase		
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.

Alternative A (preferred alternative)

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 **Least Threatened**.

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.

Eight 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 28 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 28 potentially occurring species, 17 are considered to be **SCC** with only nine 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).

Both the dining room area site and the spa accommodation site is regarded as having a **moderate** biodiversity value. The proposed new spa suites will respect the 32 m buffer of the non-perennial river, however the proposed new dining room will be located over an episodic drainage line near the top end of the earthen dam and is located within the high water mark of the dam and the 1:100 flood line. However, it should be noted that the proposed new dining room will be elevated on stilts and thereby be above the dam HWM and 1:100 year flood line. Raising the dining room will also minimize the amount of riparian vegetation needed to be cleared. All proposed new WWTW will be located outside of the flood lines and 32 m buffers.

No cultural heritage sites were recorded for the site.

New waste water treatment works will be constructed at River Lodge, Buffalo Camp, Karula and Southern Camp, as well as, at the Drakensig Staff Village. The WWTW proposed is the 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.

Power to the Proposed Extensions to River Lodge will be via solar panels and backup generators. The solar panels will be pole mounted.

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 loss of areas classified as CBA1 due to vegetation clearing, disturbance of sensitive habitats and the pollution and contamination of the dam/drainage lines due to placement of infrastructure.

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 avoidance/ reduction in ground and surface water contamination due to aging / leaking current sewage treatment works.

In light of the above discussion, it is recommended that the proposed Extensions to River Lodge and the WWTW Upgrades at Kapama Private Game Reserve 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 River Lodge and the WWTW Upgrades 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 flora and surface water.

However, it should also be noted that no positive impacts will be realized such as the upgrades to the aging/insufficient WWTW at the 4 lodges and staff village. The current WWTW are aging/insufficient, not lined and leaking, potentially resulting in ground and surface water pollution. The upgrades to these WWTW will have a positive impact on the ground and surface water as the new systems will not leak and treat effluent to a high standard for irrigation. Other positive impacts include 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 hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES	<input type="checkbox"/>
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If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

--

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 River Lodge and the WWTW Upgrades in Kapama Private Game Reserve will take place in Granit Lowveld, which was assessed by Mucina & Rutherford (2006) as **Least Threatened**.

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:

- Register boreholes to be used for potable water extraction as per DWS requirements.
- Buildings and other hardened surface infrastructure (including storm water attenuation measures) should try to be located outside of buffered watercourses.
- The sensitivity map must be used as a decision tool to guide the layout design for the proposed extensions and WWTW.
- The trees *Sclerocarya birrea subsp. Caffra*, *Elaeodendron transvaalense*, *Philenoptera violacea*, *Combretum imberbe* and *Balanites maughamii* are nationally protected and *Spirostachys africana* is protected under provincial legislation. It is recommended that all development 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.
- Prior to any construction at any of the sites, an experienced botanist should 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.
- All proposed roads to contain adequate stormwater drainage and erosion control measures.

Construction Phase:

- Vegetation disturbance and removal must be kept to a minimum and the areas monitored to ensure that areas are exposed for brief periods of time only.
- Construction within or near drainage lines should take place outside of the rainy season when the flow of the non-perennial rivers is at a minimum.
- Wherever possible, trees taller than 5 m or with a diameter at breast height of 30 cm should be left unharmed, whether protected by law or not.
- Construction within or near drainage lines should take place outside of the rainy season when the flow of the non-perennial rivers is at a minimum.
- Poaching could be a significant threat. If any external labour teams are used during construction, then these teams should preferably be accommodated off site; if this is not possible then teams should be carefully monitored to ensure that no unsupervised access to plant and animal resources takes place.
- In order to comply with the Conservation of Agricultural Resources Act (Act 43 of 1983), all listed invasive exotic plants should be targeted and controlled. This is especially applicable to **Lantana camara*, **Datura stramonium*, **Ricinus communis*, **Xanthium spinosum*, **Salvinia adnata*, **Sesbania punicea* and **Opuntia stricta*.
- All rehabilitation should make use of indigenous plant species, and preferably of species native to the study area and immediate surroundings. The species selected should strive to represent habitat types typical of the ecological landscape prior to construction.

Operational Phase:

- Management measures to eradicate and control alien plants need to be informed by the Reserve's invasive species management program.
- No unauthorized access is permitted to buffer areas or any natural areas outside of the facility footprint.
- Grounds staff should be trained to recognize and eradicate potential invasive plants.
- Water saving measures will be implemented where possible and practical. The use of draught resistant species in landscaping around the lodges will be planted, irrigation will be done with volumes that can be obtained from the new wastewater treatment works.
- Developers must implement an alien plant control program to combat the infestation present, especially along the edges and within drainage lines and wetlands. This program should include regular inspections and follow-ups.

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

Is an EMPr attached?

YES

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 Extensions
- Appendix D.1.2: Heritage Impact Assessment for S24G
- Appendix D.2.1: Ecological Impact Assessment for Extensions
- Appendix D.2.2: Ecological Impact Assessment for S24G
- Appendix D.3.1: Visual Impact Assessment for Extensions
- Appendix D.3.2: Visual Impact Assessment for S24G

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: