Earthlink Environmental Services

DRAFT BASIC ASSESSMENT REPORT

FOR THE PROPOSED EXPANSION OF KURHULA LODGE NEAR HOEDSPRUIT, WITHIN THE MARULENG LOCAL MUNICIPALITY, LIMPOPO PROVINCE.

Prepared by:

Earthlink Environmental Services

Applicant:

OM Holdings SA (Pty) Ltd

Competent Authority:

Limpopo Economic Development, Environment and Tourism

APRIL 2025

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:	
	(For official use only)
NEAS Reference Number:	
Date Received:	
Due date for acknowledgement:	
Due date for acceptance:	
Due date for decision	

Kindly note that:

1. The report must be compiled by an independent Environmental Assessment Practitioner.

2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

3. Where applicable **tick** the boxes that are applicable in the report.

4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.

5. An incomplete report may be returned to the applicant for revision.

6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

Cnr Suid & Dorp Streets, POLOKWANE, 0700, P O Box 55464, POLOKWANE, 0700
Tel: 015 290 7139/ 7207, Fax: 015 295 5015, website: http\\www.ledet.gov.za

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.

8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.

9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.

10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

Postal Address:	**Physical Address**:
Central Administration Office Environmental Impact Management P. O. Box 55464 **POLOKWANE** 0700	Central Administration Office Environmental Affairs Building 20 Hans Van Rensburg Street / 19 Biccard Street **POLOKWANE** 0699
Queries should be directed to the Central Administration Office: Environmental Impact Management:- **For attention:** Mr E. V. Maluleke **Mobile:** 082 947 7755 **Email:** malulekeev@ledet.gov.za	

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

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section? YES [redacted]

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

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail[1]:

The applicant, OM Holdings Sa (Pty) Ltd is proposing the expansion of the existing lodge and renovation of Kurhula Lodge on farm Parson 155 KT near Hoedspruit, Limpopo Province. The lodge is located with the Parson's Nature Reserve (**Figure 1**). The GPS Coordinates are as follows: 24° 09' 59.24" S 30° 55' 35" E. Currently there are seven existing buildings. These buildings will be renovated with new internal layouts. Four of the existing buildings will have additions to increase the footprint. An addition of 3 new buildings will be added to the site. All drainage and water systems to make use of septic tanks and French drains. All water heaters and stoves to use gas.

The total area for expansion and vegetation clearance within a Critical Biodiversity is 1418m^2 and it will be done as follows:

- Total Lodge expansion Footprint = 886m^2
- Total Walkway (Gravel) = 532m^2

The proposed expansions are indicated in the table below and also showed in Figure 1 to Figure 3.

Aspect	Proposed Expansion
Guest Rooms	There will be an addition of 1 new guest lodge (owners' house) added to the site. With these new lodges the bedroom count is up to 12 beds in six guest packages. These cottages will receive an outdoor shower area and a covered deck that is connected to the lodges.
Manager's Cottage	There will be a new manager's cottage that will have two bedrooms in one cottage. The cottage will receive an outdoor shower area and a covered deck that is connected to the lodge.
Staff Quarter's	The existing staff sharing will be enlarged to accommodate a new working force that will have six rooms and twelve beds with workers sharing a room. The new staff quarters will have two outdoor areas. One will have a boma. No covered Patio or decking.
Ranger's Lodge	The existing ranger's lodge will be upgraded to a 4 bedroom and 4 beds ranger's lodge.
Main House	The main house has an existing deck and pool. This is also to be upgraded and enlarged.
Pent Lodge	The Pent Lodge will hold a hot tub on the existing decking.

[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.

Site Work	• New walkways have been established with gravel paths. • A drop off area in front of the existing house has been created with gravel. • All pathways and car paths are covered with gravel.

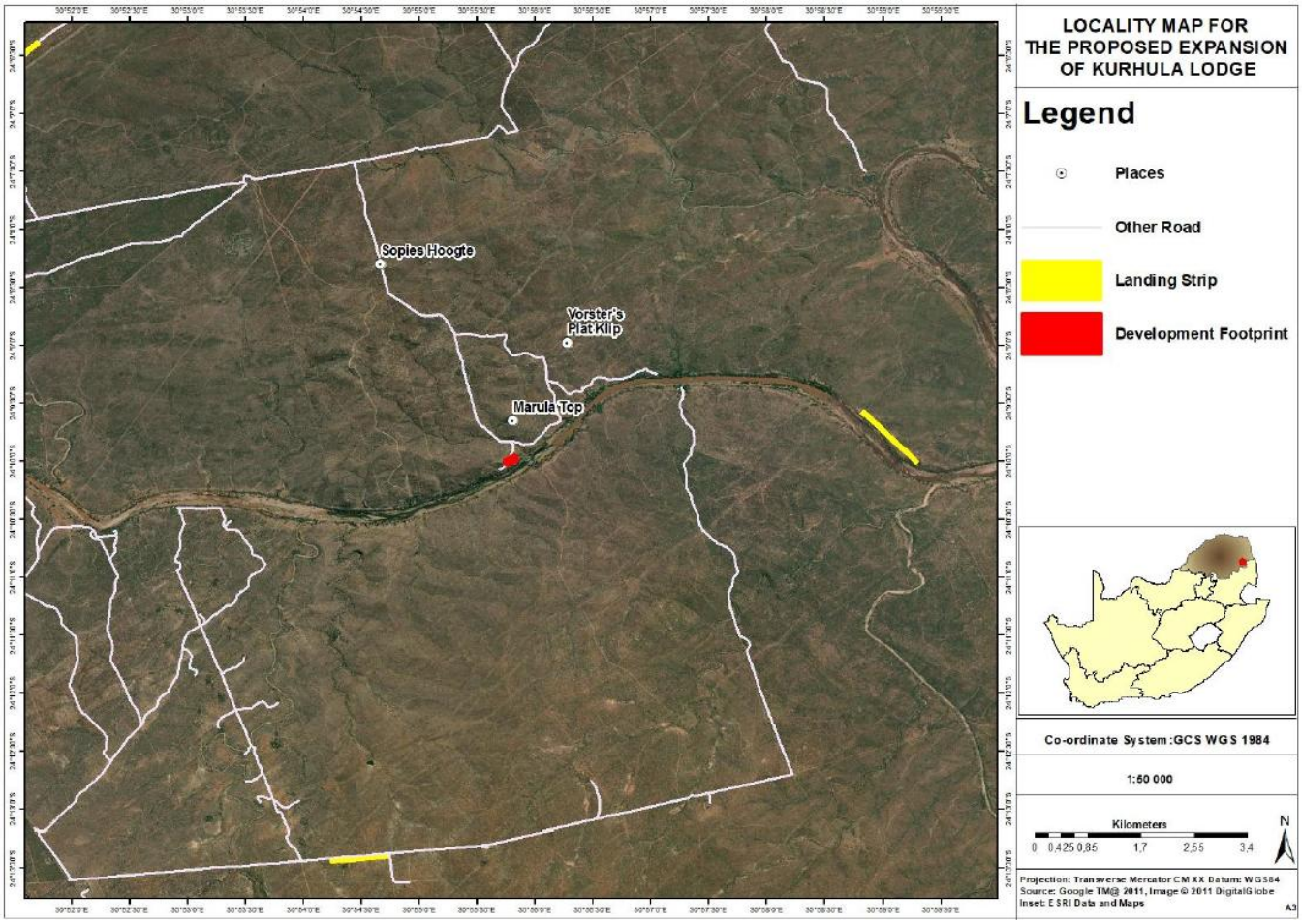


Figure 1: Locality Map (Indicated in red).

Figure 2: Site Locality Map Zoomed in

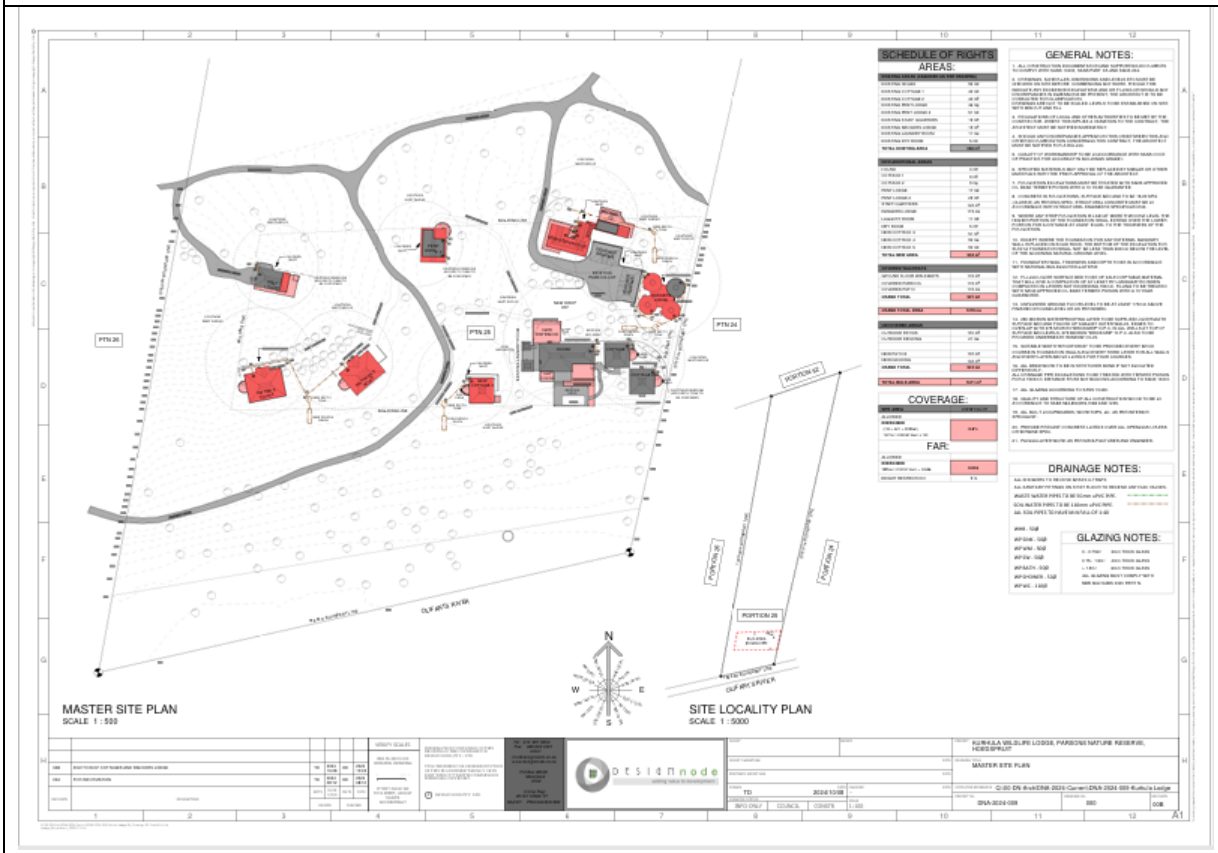


Figure 3: Master Plan for the proposed expansion of the lodge

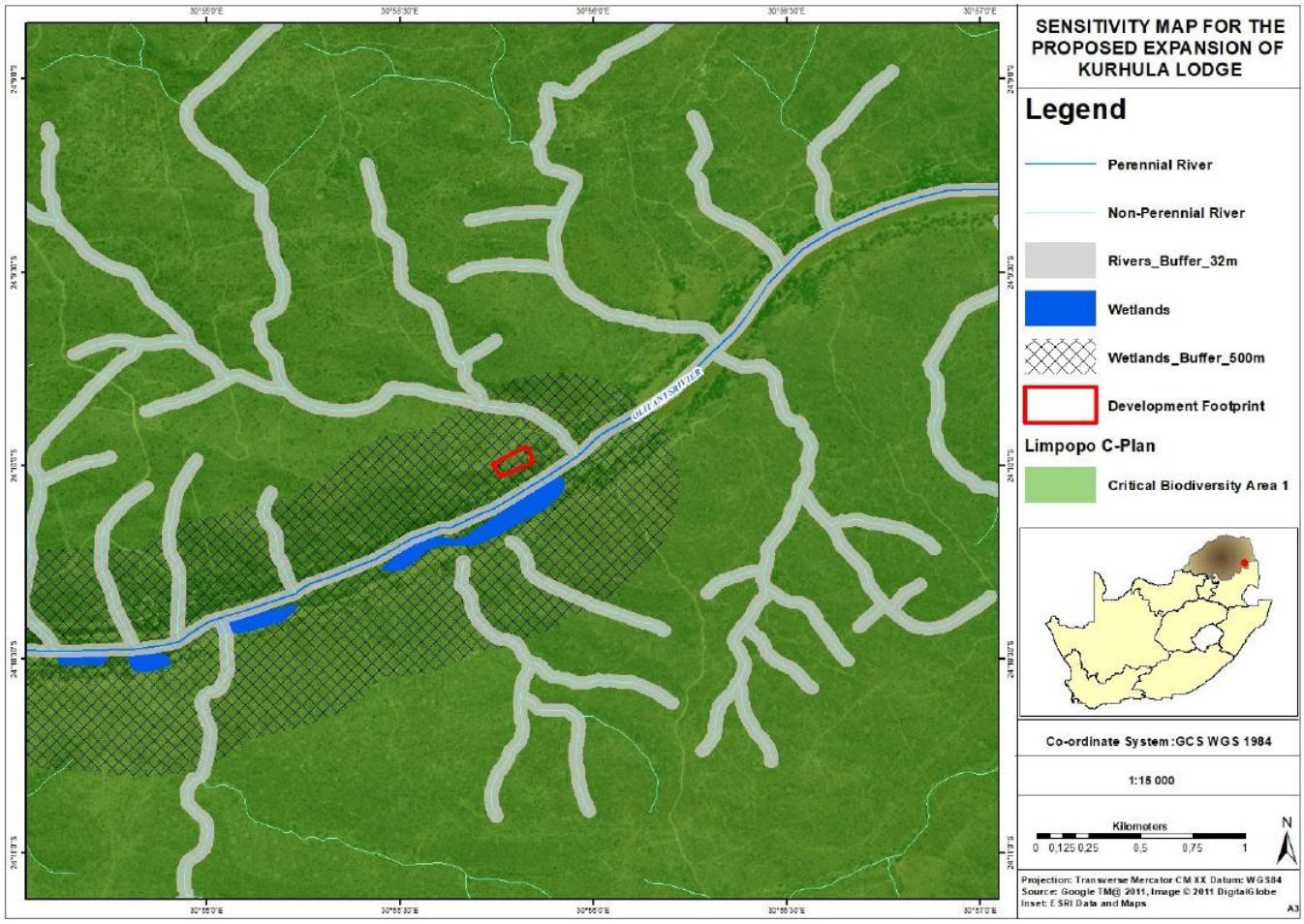


Figure 4: Master Plan for the proposed expansion of the lodge

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;

(c) the design or layout of the activity;

(d) the technology to be used in the activity;

(e) 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.

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

Property alternatives

The Applicant owns the proposed property, and the planned expansion is necessary on this site since it is the location of the current Kurhula Lodge.

Project alternatives

Due to the growth in business, the Applicant wishes to expand the existing lodge to better accommodate the needs of guests.

Layout alternatives

Only the proposed layout is considered as the Applicant intends to renovate the current buildings and construct three additional ones.

No-go alternative

The no-go alternative would mean that the proposed activity does not take place. Consequently, the anticipated effects linked to the proposed lodge would not materialise, and the conditions on the properties are likely to remain unchanged from their current state.

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.

List alternative sites, if applicable.

	Latitude (S):			**Longitude (E):**		
Alternative:						
Alternative S1[2] (preferred or only site alternative)	24˚	9'	59.05"	30˚	55'	47.15"
Alternative S2 (if any)						
Alternative S3 (if any)						

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**

[2] "Alternative S.." refer to site alternatives.

Alternative S1 (preferred or only route alternative)

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

Alternative S2 (if any)

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

Alternative S3 (if any)

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

[redacted]

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):

Alternative:	**Size of the activity:**
Alternative A1[3] (preferred activity alternative)	1418m^2
Alternative A2 (if any)	[redacted]
Alternative A3 (if any)	

or,

<u>for linear activities:</u>

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	[redacted]

[3] "Alternative A.." refer to activity, process, technology or other alternatives.

Alternative A2 (if any)

Alternative A3 (if any)

[redacted]

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

Size of the site/servitude:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

[redacted]

5. SITE ACCESS

Does ready access to the site exist?	**YES** [redacted]
If NO, what is the distance over which a new access road will be built	m

Describe the type of access road planned:

N/A

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 plan is included as Appendix A.**

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.

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. **Photographs are attached under 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. **A comprehensive illustration has been included as Appendix C.**

11. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R32 Million
What is the expected yearly income that will be generated by or as a result of the activity?	R10 million
Will the activity contribute to service infrastructure?	NO
Is the activity a public amenity?	NO
How many new employment opportunities will be created in the development phase of the activity?	35
What is the expected value of the employment opportunities during the development phase?	R 1.5 million
What percentage of this will accrue to previously disadvantaged individuals?	80%
How many permanent new employment opportunities will be created during the operational phase of the activity?	16
What is the expected current value of the employment opportunities during the first 10 years?	R15 million
What percentage of this will accrue to previously disadvantaged individuals?	80%

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	
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		
	N/A		

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	
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
	N/A		
v.	Will the proposed land use / development impact on the sense of place?		NO
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
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		
	N/A		

BENEFITS:			
i.	Will the land use / development have any benefits for society in general?	YES	
ii.	Explain:		
	The proposed expansion and renovation of Kurhula Lodge will offer several benefits to society, particularly at the local and regional level.		

	• **Employment Opportunities**
	  o **The expansion will lead to increased employment, both during the construction phase and long-term operational phase. The enlarged staff quarters indicate a need for additional workers, which will benefit the local job market.**
	• **Economic Development**
	  o **By expanding the lodge's capacity and amenities, the project is likely to attract more tourists. This can boost the local economy through increased spending on local goods, services, and tourism-related activities.**		

iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES	
iv.	Explain: **The proposed expansion and renovation of Kurhula Lodge will offer several benefits to society, particularly at the local and regional level.** • **Employment Opportunities** o **The expansion will lead to increased employment, both during the construction phase and long-term operational phase. The enlarged staff quarters indicate a need for additional workers, which will benefit the local job market.** • **Economic Development** **By expanding the lodge's capacity and amenities, the project is likely to attract more tourists. This can boost the local economy through increased spending on local goods, services, and tourism-related activities.**		

10. 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:	**Administering authority:**	**Date:**
The Constitution Act (No 108 of 1996), Chapter 2, Section 24	Dept of Water and Sanitation (DWS) & Dept of Environmental Affairs (DFFE)	1996

National Environmental Management Act (No 107 of 1998) and amended	In this case LEDET	19 Nov 1998
Environmental Impact Assessment (EIA) Regulations as amended	In this case LEDET	2014, as amended 2017
National Heritage Resources Act (No 25 of 1999), Section 34 – 36	South African Heritage Resources Agency (SAHRA)	28 April, 1999
Occupational Health and Safety Act (No 85 of 1993), Sections 8 and 9	Department of Labour	1993
National Water Act (No 36 of 1998), Section 19 and 20 and Chapter 4 (Sections 21 – 55)	Department of Water and Sanitation	26 August 1998
Mineral Petroleum Resources Development Act (Act No 28 of 22)	Department of Minerals Resources and Energy	2002
National Road Traffic Act (Act No 93 of 1996)	National Department of Transport	1996
National Environmental Management: Biodiversity Act	DFFE or LEDET	2004
Limpopo Environmental Management Act	LEDET	2003
Occupational Health and Safety Act (Act No 85 of 1993) (OHSA) as amended in July 2001, Including Major Hazard Installation Regulation, GNR 692, 30 July 2001.	National Government	1993 2001

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
If yes, what estimated quantity will be produced per month?	±50m^3

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

Unused building material waste will be disposed of at a licensed landfill facility.

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

The waste will be disposed of at a licensed landfill within the municipality. Proof of Disposal will be kept onsite

Will the activity produce solid waste during its operational phase?	YES
If yes, what estimated quantity will be produced per month?	±50m^3

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

General waste will be taken to a licensed landfill for disposal. Although the generation of hazardous waste is not expected, any such waste that does arise will be handled by a certified waste management service and transported to an approved hazardous waste disposal facility.

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

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or 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

At this stage of the Kurhula Lodge expansion project, it is not anticipated that any solid waste generated will be classified as hazardous in terms of the relevant environmental legislation. However, should any waste streams arise that meet the criteria for hazardous waste as defined by the National Environmental Management: Waste Act (Act No. 59 of 2008) and associated regulations they will be identified, managed, and disposed of accordingly..

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

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
If yes, what estimated quantity will be produced per month?	N/A
Will the activity produce any effluent that will be treated and/or disposed of on site?	NO

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

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:

E-mail: [redacted]

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

N/A

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	YES [redacted]
If yes, is it controlled by any legislation of any sphere of government?	[redacted] NO

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:

The expansion activity is expected to result in minimal atmospheric emissions. Temporary emissions may occur during the construction phase, primarily from construction vehicles and equipment, which could release exhaust gases such as carbon monoxide, nitrogen oxides, and particulate matter. Dust generation may also occur during earthworks and material handling. These emissions are considered to be of low intensity and short duration.

11(d) Generation of noise

Will the activity generate noise?	YES [redacted]
If yes, is it controlled by any legislation of any sphere of government?	[redacted] NO

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:

Noise sources will include construction machinery, vehicle movement, and general site activities. These noise levels are expected to be temporary and limited to standard working hours.

12. WATER USE

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

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

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:	Unknown
Does the activity require a water use permit from the Department of Water Affairs?	[redacted] NO

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.

13. ENERGY EFFICIENCY

Describe the design measures, if there are any, that have been taken to ensure that the activity is energy efficient:

N/A

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

LED lights will be used at night.

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:	**Portion 25 of Farm Parsons 155 KT**
	(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.
	N/A
	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:	Protected Area

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to , to this application.

Is a change of land-use or a consent use application required?	NO
Must a building plan be submitted to the local authority?	NO

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)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	

Alternative S2 (if any):

Alternative S3 (if any):

2. LOCATION IN LANDSCAPE

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

		2.6 Plain	
2.3 Side slope of hill/mountain			
2.4 Closed valley			

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)?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	NO		
Dolomite, sinkhole or doline areas	NO		
Seasonally wet soil (often close to water bodies)	YES		
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. GROUNDCOVER

Indicate the types of groundcovers 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).

Natural veld - good condition[E]	Natural veld with scattered aliens[E]		
		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]	
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	
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		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?

N/A

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:	N/A
If NO, specify:	N/A

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:	N/A
If NO, specify:	N/A

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		NO
Archaeological or palaeontological sites, on or close (within 20m) to the site?		Uncertain
If YES, explain:	N/A	
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:	Phase 1 heritage study was undertaken and No graves, marked or unmarked, no heritage remains, or socio-religious areas were recorded during survey. Areas around the development were surveyed to ensure that no heritage remains were impacted during development (refer to Appendix H3 for full heritage specialist report).	
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.		

SECTION C: PUBLIC PARTICIPATION

Please refer to Appendix F for proof of 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.

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.

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 Local Municipality	No
Department of Water and Sanitation	No
Department of Agriculture and Rural Development	No

7. CONSULTATION WITH OTHER STAKEHOLDERS

This is a draft BAR for public review

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 sub regulation 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? **YES** ☐

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

- Concerns relating to the provision for grey and brown water, given the proximity to the Olifants River and potential contamination.
- The current structures are already very visible from the established properties on the Southern banks of the Olifants River (directly opposite) and the proposal would multiply the visual impact, especially from well-established and high-end commercial lodges. This would be especially noticeable at night.
- The noise associated with the proposal, including extra traffic and other anthropogenic noise, could detract from the sense-of-place and further impact on the established commercial lodges and intrinsic ambiance of the protected area.
- We are unaware of the prescriptions of the Parsons Private nature Reserve policies and constitution, and weather this proposal is in conflict with these.
- It is further our opinion that the Parsons Private Nature Reserve landscape has become over-developed and poses a risk to the integrity of the protected areas network, as well as the integrity of our commercial lodge industry on Olifants West Nature Reserve.
- We are further concerned that the proposal will exacerbate the impact on the Olifants River riparian zone, should vegetation removal be required.

The copy of correspondence attached under Appendix F

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.

- Concerns relating to the provision for grey and brown water, given the proximity to the Olifants River and potential contamination.
- The current structures are already very visible from the established properties on the Southern banks of the Olifants River (directly opposite) and the proposal would multiply the visual impact, especially from well-established and high-end commercial lodges. This would be especially noticeable at night.
- The noise associated with the proposal, including extra traffic and other anthropogenic noise, could detract from the sense-of-place and further impact on the established commercial lodges and intrinsic ambiance of the protected area.
- We are unaware of the prescriptions of the Parsons Private nature Reserve policies and constitution, and weather this proposal is in conflict with these.

- It is further our opinion that the Parsons Private Nature Reserve landscape has become over-developed and poses a risk to the integrity of the protected areas network, as well as the integrity of our commercial lodge industry on Olifants West Nature Reserve.
- We are further concerned that the proposal will exacerbate the impact on the Olifants River riparian zone, should vegetation removal be required.

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):

- The proposed development will not discharge any wastewater directly into the river or its tributaries. All grey and brown water will be managed on-site through appropriately designed septic tanks and French drain systems, compliant with environmental regulations and best practices for off-grid eco-tourism operations.
- The proposed expansions have been carefully designed to blend with the surrounding landscape by maintaining existing architectural styles and using natural colors and materials.
- During construction, all work will occur within designated hours to reduce disruption. Post-development, the lodge will remain a low-density, eco-sensitive facility, with a limited number of guests and controlled vehicle access.
- No action will be taken in conflict with reserve regulations, and formal approvals will be sought where necessary.
- The proposed expansion has been intentionally limited in scale, focusing on renovating existing structures and adding only a small number of new buildings. The total development footprint, including walkways, remains modest at 1,418m².
- Vegetation clearance will be strictly limited and carefully managed. The development footprint has been designed to avoid direct encroachment into sensitive riparian areas.

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.

Alternative (preferred alternative)

Direct impacts: Construction Phase

- Clearance of approximately 1,418 m² within a Critical Biodiversity Area (CBA), including for new buildings

and gravel walkways.

- Potential loss of indigenous vegetation and associated habitat.
- Excavation and levelling for new structures, additions, and pathways may lead to soil exposure and increased erosion, especially if not properly managed.
- Construction activities, especially site clearance and gravel work, will generate dust, which can affect local air quality and nearby vegetation.
- Machinery, vehicle movement, and general construction activities will produce elevated noise levels that may disturb wildlife and nearby residents or lodges.
- Temporary increase in water use for construction purposes (mixing concrete, dust suppression, etc.), placing pressure on local water sources.
- Generation of solid waste such as packaging materials, building rubble, and other debris needing proper disposal.
- Temporary visual impacts from construction equipment, scaffolding, and incomplete structures, particularly visible from across the Olifants River.
- Elevated movement of construction vehicles and delivery trucks on local access roads, possibly leading to congestion, dust, or road surface damage.
- Disruption of local wildlife movement and behaviour due to noise, lights, and increased human activity on-site.
- Accidental spills or leaks of fuel, oil, or construction materials may contaminate the soil or groundwater if not properly contained.
- Positive direct impact through the temporary creation of jobs for local labourers and contractors.

Indirect Impacts

- Construction traffic may be caused by construction vehicles moving in and out of the construction site and site camp.
- Construction sites by their nature act as a magnet to the unemployed, so people may gather on or around the site. These people must be kept off the site for safety reasons.
- Employment opportunities will be created during the development of this site thus leading to an increase in the level of local employment in the surrounding areas. Both short term and long-term employment will be created.
- Construction activity and improper waste management could attract opportunistic wildlife (e.g., baboons, scavengers), increasing the risk of negative interactions.
- Disturbed soil and increased vehicle movement could facilitate the spread of invasive alien plants, especially if vehicle/equipment hygiene is not managed.

Cumulative Impacts

- Although the individual footprint is modest (1,418 m²), when combined with other developments in the Parsons Private Nature Reserve, this contributes to the gradual loss and fragmentation of natural habitats, reducing ecological connectivity.
- Additional structures increase the built-up visual presence along a largely natural riverbank. When viewed

cumulatively with existing lodges and infrastructure, the overall wilderness character and scenic value of the river corridor may be diminished, especially from high-end lodges on the opposite bank.

- More lodges and expansions lead to increased human-wildlife interactions, noise, and light pollution. Collectively, this may result in stress to sensitive species, shifts in animal behaviour, and even displacement of certain wildlife.

Mitigation Measures

- Dust generation should be kept to a minimum and dust must be suppressed at construction areas during dry periods by the regular application of water.
- Excavating, handling or transporting erodible materials in high wind or when dust plumes are visible shall be avoided.
- All materials transported to site must be transported in such a manner that they do not fly or fall off the vehicle. This may necessitate covering or wetting friable materials.
- No burning of refuse is permitted.
- Site development to be limited to footprint area.
- The construction camp (if any) must be located as far from residential properties as possible.
- Light pollution should be minimised.
- Construction / management activities must be limited to the daylight hours between 7:00am and 5:30pm weekdays; 7:00am and 1:30pm on Saturdays.
- Lighting on site is to be sufficient for safety and security purposes, but shall not be intrusive to neighbouring residents, disturb wildlife, or interfere with road traffic. In this situation low flux and frequency lighting shall be utilised.
- Ensure vehicle and heavy machinery used on-site are regularly inspected for leaks and serviced at frequent intervals. Spill trays to be used where applicable.
- Utilize proper waste management practices.
- Ensure that the handling, transport, storage and disposal of hazardous substances (if any) is adequately controlled and managed.
- Activities that may disrupt neighbours (e.g. delivery trucks, excessively noisy activities etc.) must be preceded by notice being given to the affected neighbours at least 24 hours in advance.
- Noise levels shall be kept within acceptable limits, and construction crew must abide by National Noise Laws and local by-laws regarding noise.
- Waste will be collected and removed off-site to a registered waste site.
- The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations
- Necessary Personal Protective Equipment (PPE) and safety gear appropriate to the task being undertaken is to be provided to all site personnel (e.g. hard hats, safety boots, masks etc.).

- All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA).
- An environmental awareness training programme for all staff members shall be put in place by the Contractor, before commencing with any work, all staff members shall be appropriately briefed about the EMP and relevant occupational health and safety issues.
- Access to fuel and other equipment stores is to be strictly controlled.
- Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimised. This will also ensure that potential liabilities and damage to life and the environment are avoided.
- Make use of local labour.
- Provide clear and realistic information regarding employment opportunities and other benefits for local communities in order to prevent unrealistic expectations

Alternative (preferred alternative): OPERATION PHASE

Direct impacts: Operations

- Increased water demand for guest lodges, staff facilities, and landscaping could place strain on local water sources.
- Failure of septic tanks or French drains could result in groundwater contamination.
- Ongoing production of household waste, including plastics, organic waste, and cleaning chemicals.
- Guest and operational noise, from vehicles, air-conditioning units, staff activities, etc., may disturb local wildlife and reduce the sense of solitude valued by tourists.
- Night lighting could disrupt nocturnal animal behaviour and reduce the area's dark sky quality, impacting wildlife and the visual experience.
- Use of gas appliances for heating and cooking introduces a risk of accidental fires, particularly in dry seasons.
- Continued employment and skills development for local staff.

Indirect Impacts:

- Safety and Security
- Groundwater pollution by the hydrocarbons
- Visual impacts

Cumulative and Indirect impacts:

- Infrastructure and services
- Employment within the area

Mitigation Measures

- Install water-saving fixtures such as low-flow showerheads, taps, and dual flush toilets in guest rooms, staff facilities, and other areas.
- Implement a rainwater harvesting system to capture and store rainwater for non-potable uses like irrigation and landscaping.

- Regular maintenance and monitoring of septic tanks and French drains to ensure that they are functioning properly.
- Ensure that any wastewater treatment systems are sized appropriately for the increased occupancy and operational needs.
- Segregate waste at the source into recyclable, compostable, and non-recyclable categories, ensuring that recyclable materials (e.g., plastics, glass, paper) are properly collected and sent to recycling facilities.
- Educate staff and guests about waste minimisation and encourage responsible waste disposal.
- Limit vehicle access during certain hours (especially during early mornings or late evenings) to minimize noise disturbance to wildlife and guests.
- Establish a code of conduct for staff to minimize noise during operational hours and encourage quiet behaviour.
- Use low-intensity, motion-sensor lighting in guest areas and common spaces to reduce light pollution.
- Install downward-facing lights to minimize light spill into surrounding habitats and reduce disruption to nocturnal animals.

Alternative A (preferred alternative): DECOMMISSIONING PHASE

Due to the nature of the development, it is anticipated that the infrastructure would be permanent, thus not requiring decommissioning or rehabilitation. However, should the decommissioning take place the potential impacts as described in construction phase section are applicable.

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)

No alternative sites and projects were investigated as part of this Basic Assessment

Impact Category	Impact	Status	Extent	Duration	Magnitude	Likelihood	Significance Without Mitigation	Significance With Mitigation	Mitigation Measures
Construction Phase	**Vegetation and Habitat Disturbance**: Disturbance of the local vegetation and wildlife habitats during the clearing of land for construction activities.	Negative	Site-bound	Short-term (0-5 yrs)	Medium	Highly probable	Medium	Low	Restrict clearing to designated areas, use erosion control measures, and restore disturbed areas post-construction.
	Water Demand and Pollution: Increased demand for water during construction and potential for pollution from runoff, wastewater, and sewage that may contaminate surrounding water sources.	Negative	Local	Short-term (0-5 yrs)	High	Highly probable	High	Medium	Implement rainwater harvesting systems, use water-saving devices, and treat wastewater efficiently.
	Waste Generation: Increased waste production from construction activities, including plastics, construction debris, and organic waste.	Negative	Site-bound	Short-term (0-5 yrs)	Medium	Highly probable	Medium	Low	Segregate waste, recycle materials, compost organic waste, and ensure proper disposal of hazardous waste.
	Noise and Dust Pollution: Increased noise and dust levels due to construction activities, machinery operation, and	Negative	Site-bound	Short-term (0-5 yrs)	Medium	Highly probable	Medium	Low	Use noise barriers, limit construction hours, apply dust suppression methods,

	transport vehicles.								and restrict vehicle movement.
	Soil Erosion and Sedimentation: Soil disturbance and potential erosion due to earthworks, particularly during heavy rains, which could affect local water quality.	Negative	Local	Short-term (0-5 yrs)	Medium	Possible	Medium	Low	Apply erosion control measures (e.g., silt fences), avoid soil disturbance during rains.
	Traffic and Access Disruption: Increased traffic on local roads during the transportation of construction materials and personnel, potentially causing delays or disruptions.	Negative	Local	Short-term (0-5 yrs)	Medium	Highly probable	Medium	Low	Manage traffic through scheduling, provide temporary routes, and limit construction vehicle movement during peak times.
Operational Phase	**Increased Water Demand for Operations**: Higher water usage for guest lodges, staff facilities, and landscaping that may place pressure on local water resources.	Negative	Local	Long-term (>15 yrs)	High	Highly probable	High	Medium	Install water-saving devices, implement rainwater harvesting, and use efficient water treatment systems.
	Failure of Septic Tanks and Wastewater Contamination: Risk of septic tank failure or ineffective treatment of wastewater that could lead to contamination of local groundwater or surrounding water bodies.	Negative	Local	Long-term (>15 yrs)	Medium	Possible	High	Medium	Regular inspection of septic tanks, implement advanced wastewater treatment, and ensure proper disposal.
	Waste Generation (Plastic, Organic, Chemicals): Ongoing generation of waste, including plastics, organic waste, and	Negative	Site-bound	Long-term (>15 yrs)	Medium	Highly probable	Medium	Low	Implement waste segregation, composting, recycling programs, and ensure

	chemicals, which can cause environmental pollution if not properly managed.								proper disposal of hazardous waste.
	Wildlife Disturbance (Noise and Light Pollution): Increased noise levels and artificial lighting at night that could disrupt local wildlife, including nocturnal species and migratory patterns.	Negative	Local	Long-term (>15 yrs)	Medium	Highly probable	Medium	Low	Limit vehicle access, use low-light or motion-sensor lighting, and minimize human-wildlife interactions.
	Visual Intrusion: The visual impact of the new development on the surrounding landscape, which could affect the aesthetic value and appeal of the natural environment, especially for high-end tourists.	Negative	Local	Long-term (>15 yrs)	Medium	Possible	Medium	Low	Use natural materials for buildings, and position structures to blend with the natural landscape.
	Gas Appliance Risk (Fire Hazards): Use of gas appliances for heating and cooking, which introduces a fire risk, especially in the dry season, that could endanger staff, guests, and the surrounding area.	Negative	Site-bound	Long-term (>15 yrs)	Medium	Possible	Medium	Low	Regular inspections of gas appliances, install fire safety systems, and train staff on fire prevention.
	Continued Employment and Skills Development for Local Staff: The positive impact of providing long-term employment and skills development opportunities for local residents.	Positive	Site-bound	Long-term (>15 yrs)	Medium	Definite	Medium	Low	

No-go alternative (compulsory)

The 'no-go' alternative refers to the scenario in which the proposed activity does not take place, and the site activities onsite remains as they are currently. If the no-go alternative is taken, the impacts that can be anticipated to be associated with the proposed lodge would not come to pass and the demand for lodge will not be resolved.

Alternative B

[redacted]

Alternative C

[redacted]

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 [redacted]

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):

N/A

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 following is recommended to be included in any authorisation that LEDET may provide regarding the application:

- Appointment of an Environmental Control Officer (ECO) to oversee the construction and operational

phase of the EA and EMPr.

- Reporting on environmental compliance to LDEDET once a year.
- Local laborers (within 50 km of the site) shall be given preference when hiring employees, provided that the availability of suitable skills permits.
- The mitigation measures included in the report and in the EMPr must conveyed to contractors and persons responsible for construction.
- The mitigation section should be issued as a stand along document to all parties involved with the planning, implementation and operation of the proposed project.
- Environmental Authorisation must be for a 5 year period.

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

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 E: Comments and responses report

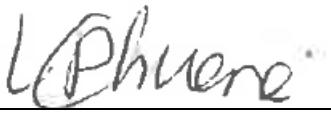
Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Lehlogonolo Chuene** 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.



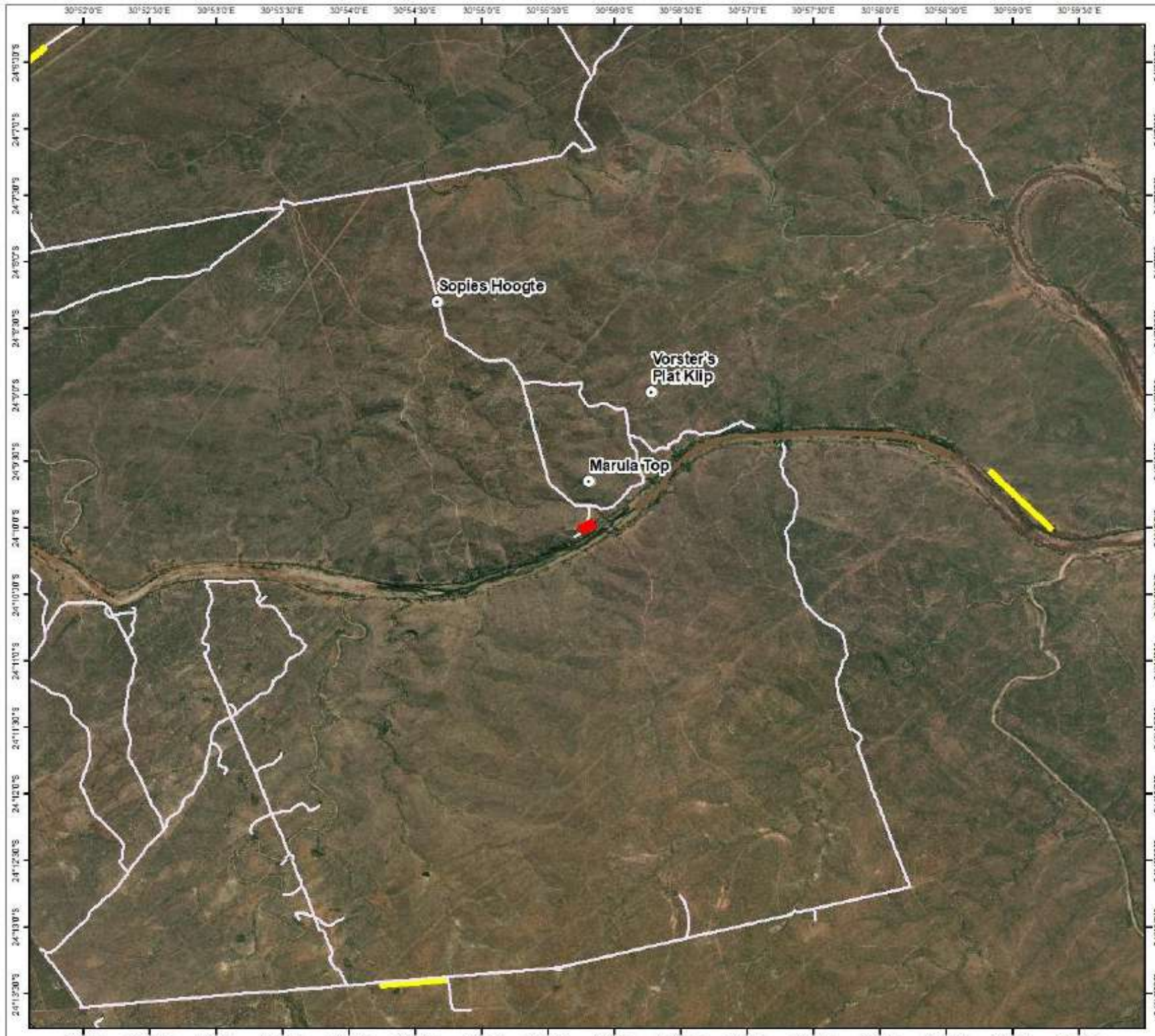
Signature of the Environmental Assessment Practitioner:

EarthLink Environmental Services (Pty) Ltd
Name of company:

14 April 2025
Date:

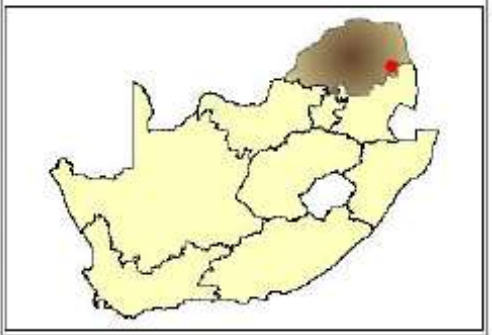
APPENDIX A: SITE MAPS

LOCALITY MAP FOR THE PROPOSED EXPANSION OF KURHULA LODGE



Legend

- Places
- Other Road
- Landing Strip
- Development Footprint



Co-ordinate System :GCS WGS 1984

1:50 000

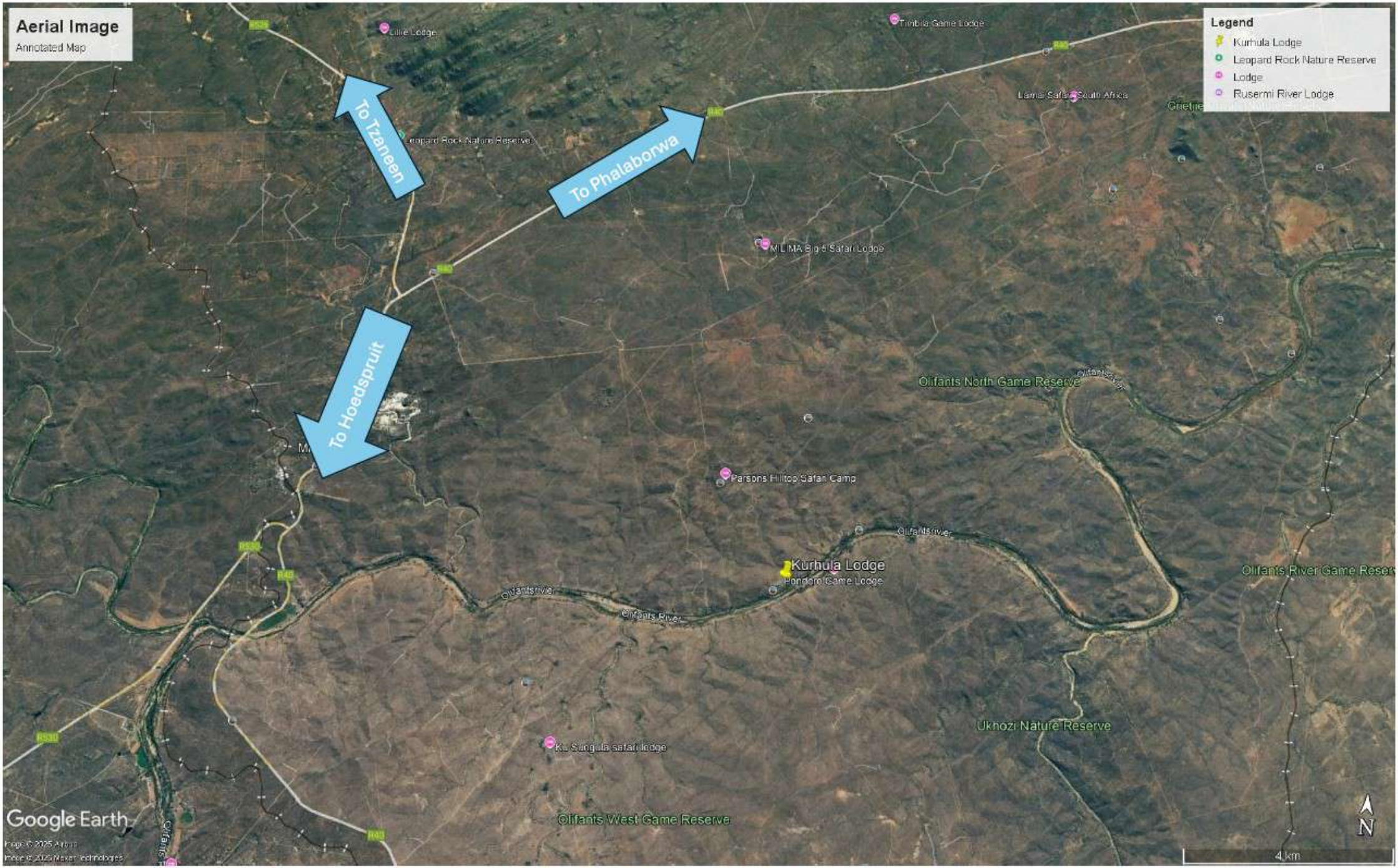
Kilometers

0 0,425 0,85 1,7 2,55 3,4

N

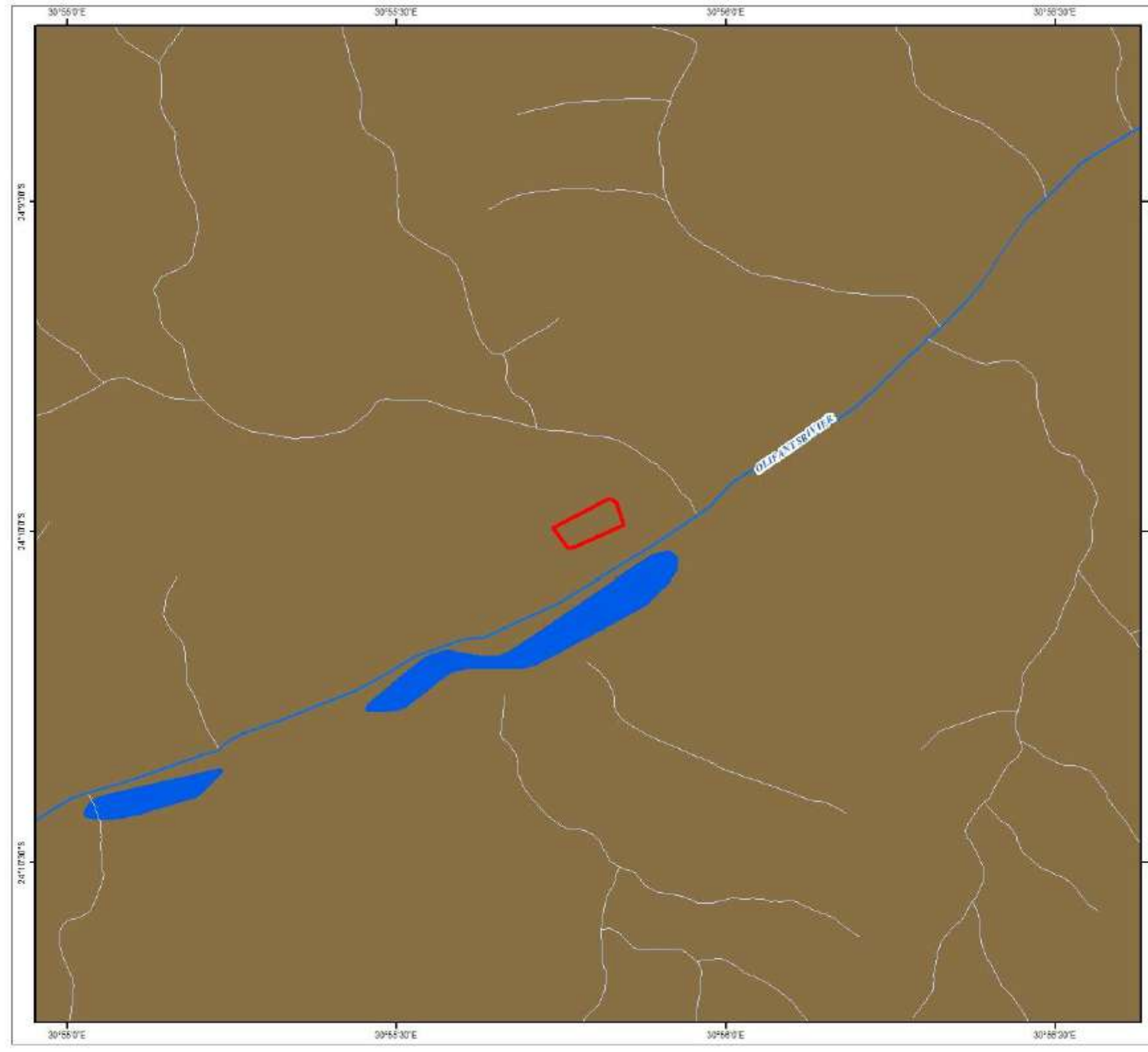
Projection: Transverse Mercator CM XX Datum: WGS84
Source: Google TM@ 2011, Image © 2011 DigitalGlobe
Inset: ESRI Data and Maps

A3


Aerial Image
Annotated Map
Legend
Kurhula Lodge
Leopard Rock Nature Reserve
Lodge
Rusermi River Lodge
To Tzaneen
To Phalaborwa
To Hoedspruit
Lillie Lodge
Timbila Game Lodge
Leopard Rock Nature Reserve
MILIMA Big 6 Safari Lodge
Olifants North Game Reserve
Parsons Hilltop Safari Camp
Olifants River
Kurhula Lodge
Pondoro Game Lodge
Olifants River Game Reserve
Ukhozi Nature Reserve
Ku Sungula safari lodge
Olifants West Game Reserve
Google Earth
N
4 km


NEW STAFF HOUSE
COVERED PARKING
EXISTING PARKING LOT
RANGER'S LODGE
PENT LODGE 2
NEW ENTRANCE
HOUSE
COTTAGE 1
COTTAGE 2
NEW COTTAGE 3
EXISTING ROAD
PENT LODGE
MANAGER'S HOUSE
OWNER'S HOUSE
Kurhula Wildlife Lodge
Image © 2025 Airbus
Google Earth

VEGETATION MAP FOR THE PROPOSED EXPANSION OF KURHULA LODGE



Legend

- Perennial River
- Non-Perennial River
- Development Footprint
- Wetlands

Vegetation Type:Status

- Granite Lowveld, Vulnerable

Co-ordinate System :GCS WGS 1984

1:10 000

Kilometers

0 0,0750,15 0,3 0,45 0,6

N

Projection: Transverse Mercator CM XX Datum: WGS84
Source: Google TM© 2011, Image © 2011 DigitalGlobe
Inset: ESRI Data and Maps

A3

SENSITIVITY MAP FOR THE PROPOSED EXPANSION OF KURHULA LODGE

Legend

- Perennial River
- Non-Perennial River
- Rivers_Buffer_32m
- Wetlands
- Wetlands_Buffer_500m
- Development Footprint

Limpopo C-Plan

- Critical Biodiversity Area 1

Co-ordinate System:GCS WGS 1984

1:15 000

Kilometers

0 0,125 0,25 0,5 0,75 1

N

Projection: Transverse Mercator CM XX Datum: WGS84
Source: Google TM@ 2011, Image © 2011 DigitalGlobe
Inset: ESRI Data and Maps

A3

APPENDIX B: SITE PHOTOGRAPHS

Photo Plate 1: Buildings to be expanded

Photo Plate 2: Buildings to be expanded

Photo Plate 3: Building to be expanded

Photo Plate 4: View of Kurhula Wildlife lodge buidings for expasion

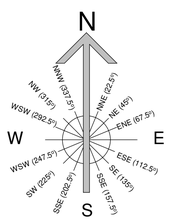
	
Photo plate 5: View of Olifants River	Photo Plate 6: View of Olifants river and aurrounding area
	
Photo Plate 6: Vegetation	Photo plate 7: Animal Droppings (African Savvanah Elephant)

	
Photo 8: Construction and demolishing waste	Photo Plate 9: Covered grass to be used in construction of thatched roofs
	
Photo Plate 10:View of the nearest mountain	Photo Plate 10: The surface Area of Rocks

Photo Plate 11: Vegetation of the area

APPENDIX C: FACILITY ILLUSTRATION(S)/ SITE PLANS

MASTER SITE PLAN
SCALE 1 : 500



SITE LOCALITY PLAN
SCALE 1 : 5000

SCHEDULE OF RIGHTS

AREAS:

EXISTING AREAS (ASSUMED AS PER DRAWING)	
EXISTING HOUSE	93 m²
EXISTING COTTAGE 1	42 m²
EXISTING COTTAGE 2	42 m²
EXISTING PENT LODGE	46 m²
EXISTING PENT LODGE 2	51 m²
EXISTING STAFF QUARTERS	19 m²
EXISTING RANGERS LODGE	19 m²
EXISTING LAUNDRY ROOM	11 m²
EXISTING DRY ROOM	5 m²
TOTAL EXISTING AREA	**328 m²**

NEW ADDITIONAL AREAS	
HOUSE	0 m²
COTTAGE 1	9 m²
COTTAGE 2	9 m²
PENT LODGE	17 m²
PENT LODGE 2	29 m²
STAFF QUARTERS	124 m²
RANGERS LODGE	119 m²
LAUNDRY ROOM	11 m²
DRY ROOM	5 m²
NEW COTTAGE 3	51 m²
NEW COTTAGE 4	92 m²
NEW COTTAGE 5	92 m²
TOTAL NEW AREA	**558 m²**

COVERED WALKWAYS	
GROUND FLOOR WALKWAYS	175 m²
COVERED PARKING	173 m²
COVERED PATIO	173 m²
GRAND TOTAL	**521 m²**

GRAND TOTAL AREA	**1079 m²**

UNCOVERED AREAS	
OUTDOOR PATIOS	190 m²
OUTDOOR DECKING	21 m²
NEW PATIOS	197 m²
NEW DECKING	124 m²
GRAND TOTAL	**532 m²**

TOTAL BULK AREA	**1611 m²**

COVERAGE:

SITE AREA	203987.36 m²
ALLOWED	
EXERCISED (700 + 521 = **1221m²**) 1221m² / 203987.36m² x 100	**0.6%**

FAR:

ALLOWED	
EXERCISED **1221m²** / 203987.36m² = **0.006**	**0.006**
HEIGHT RESTRICTION	9 m

GENERAL NOTES:

1. ALL CONSTRUCTION DOCUMENTATION AND SUPPORTING DOCUMENTS TO COMPLY WITH SANS 10400, SANS PART XA AND SANS 204.

2. DRAWINGS, SCHEDULES, DIMENSIONS AND LEVELS ETC MUST BE CHECKED ON SITE BEFORE COMMENCING ANY WORK, SHOULD THIS INDICATE ANY EXCESSIVE EXCAVATIONS AND OR FILLING OR SHOULD ANY DISCREPANCIES IN DIMENSIONS BE PRESENT, THE ARCHITECT IS TO BE CONSULTED FOR CLARIFICATION.
DRAWINGS ARE NOT TO BE SCALED. LEVELS TO BE ESTABLISHED ON SITE WITH MIN CUT AND FILL

3. REGULATIONS OF LOCAL AND OTHER AUTHORITIES TO BE MET BY THE CONTRACTOR. WHERE THIS IMPLIES A VARIATION TO THE CONTRACT, THE ARCHITECT MUST BE NOTIFIED IMMEDIATELY.

4. SHOULD ANY DISCREPANCIES APPEAR ON THIS OR BETWEEN THIS AND OTHER DOCUMENTATION CONCERNING THIS CONTRACT, THE ARCHITECT MUST BE NOTIFIED FOR A RULING.

5. QUALITY OF WORKMANSHIP TO BE IN ACCORDANCE WITH SANS CODE OF PRACTICE FOR ACCURACY IN BUILDINGS GRADE I.

6. SPECIFIED MATERIALS MAY ONLY BE REPLACED BY SIMILAR OR OTHER MATERIALS WITH THE PRIOR APPROVAL OF THE ARCHITECT.

7. FOUNDATION EXCAVATIONS MUST BE TREATED WITH SANS APPROVED OIL BASE TERMITE POISON WITH A 10 YEAR GUARANTEE.

8. CONCRETE IN FOUNDATIONS, SURFACE BED AND TO BE 15/20 MPA (CLASS B) AS PER ENG SPEC. STRUCTURAL CONCRETE MUST BE IN ACCORDANCE WITH STRUCTURAL ENGINEERS SPECIFICATIONS.

9. WHERE ANY STRIP FOUNDATION IS LAID AT MORE THAN ONE LEVEL THE HIGHER PORTION OF THE FOUNDATION SHALL EXTEND OVER THE LOWER PORTION FOR A DISTANCE AT LEAST EQUAL TO THE THICKNESS OF THE FOUNDATION.

10. EXCEPT WHERE THE FOUNDATION FOR ANY EXTERNAL MASONRY WALL IS PLACED ON SOLID ROCK, THE BOTTOM OF THE EXCAVATION FOR SUCH A FOUNDATION SHALL NOT BE LESS THAN 300mm BELOW THE LEVEL OF THE ADJOINING NATURAL GROUND LEVEL.

11. FOUNDATION WALL THICKNESS AND DEPTH TO BE IN ACCORDANCE WITH NATIONAL BUILDING REGULATIONS.

12. FILLING UNDER SURFACE BED TO BE OF AN ACCEPTABLE MATERIAL THAT WILL GIVE A COMPACTION OF AT LEAST 90% MODAASHTO WHEN COMPACTED IN LAYERS NOT EXCEEDING 150mm. FILLING TO BE TREATED WITH SANS APPROVED OIL BASE TERMITE POISON WITH A 10 YEAR GUARANTEE.

13. UNFINISHED GROUND FLOOR LEVEL TO BE AT LEAST 170mm ABOVE FINISHED GROUND LEVEL OR AS PER NHBRC.

14. 250 MICRON WATERPROOFING LAYER TO BE SUPPLIED UNDERNEATH SURFACE BED AND FOLDED UP AGAINST OUTER WALLS, EDGES TO OVERLAP WITH 375 MICRON "BRICKGRIP" D.P.C. IN ALL WALLS AT TOP OF SURFACE BED LEVELS. 375 MICRON "BRICKGRIP" D.P.C. ALSO TO BE PROVIDED UNDERNEATH WINDOW CILLS.

15. SUITABLE WIDTH "BRICKFORCE" TO BE PROVIDED EVERY BRICK COURSE IN FOUNDATION WALLS AND EVERY THIRD LAYER FOR ALL WALLS AND EVERY LAYER ABOVE LINTELS FOR FOUR COURCES.

16. ALL BRICKWORK TO BE IN STRETCHER BOND IF NOT INDICATED DIFFERENTLY.
ALL DRAINAGE PIPE EXCAVATIONS TO BE TREATED WITH TERMITE POISON FOR A 1500mm DISTANCE FROM ANY BUILDING ACCORDING TO SANS 10400.

17. ALL GLAZING ACCORDING TO SANS 10400.

18. QUALITY AND STRUCTURE OF ALL CONSTRUCTION WOOD TO BE IN ACCORDANCE TO SABS 563,653,876,1089 AND 1245.

19. ALL BUILT IN CUPBOARDS, WORKTOPS, etc. AS PER INTERIOR SPECIALIST.

20. PROVIDE PRECAST CONCRETE LINTELS OVER ALL OPENINGS UNLESS OTHERWISE SPEC.

21. PAVING LAYER WORK AS PER MANUFACTURER AND ENGINEER.

DRAINAGE NOTES:

ALL SHOWERS TO RECEIVE BRASS U-TRAPS.
ALL SANITARY FITTINGS ON FIRST FLOOR TO RECEIVE ANTI-VAC VALVES.
WASTE WATER PIPES TO BE 50mm uPVC PIPE.
SOIL WATER PIPES TO BE 110mm uPVC PIPE.
ALL SOIL PIPES TO HAVE MIN FALL OF 1:40

WHB - 50Ø
WP SINK - 50Ø
WP WM - 50Ø
WP SW - 50Ø
WP BATH - 50Ø
WP SHOWER - 50Ø
WP WC - 110Ø

GLAZING NOTES:

0 - 0.75m²	3mm THICK GLASS
0.75 - 1.5m²	4mm THICK GLASS
> 1.5m²	6mm THICK GLASS

ALL GLAZING MUST COMPLY WITH NBR AND SABS 0400 PART N.

REVISION	DESCRIPTION	DRAWN INITS	DRAWN DATE Y/M/D	CHECKED INITS	CHECKED DATE
00B	ADDITION OF COTTAGES AND RANGERS LODGE	TD	2024 10/08	HD	2024 10/08
00A	FOR INFORMATION	TD	2024 08/12	HD	2024 08/12

VERIFY SCALES
BAR IS 20mm ON ORIGINAL DRAWING
0 20mm
IF NOT 20mm ON THIS SHEET, ADJUST SCALES ACCORDINGLY

Tel: 012 991 5554
Fax: 086 609 4591
email:
info@designnode.co.za
www.designnode.co.za

PO Box 36506
Menlopark
0102

Comp Reg:
2012/113482/07
SACAP: PRArch24691669

DESIGN node
adding value to development

CLIENT
OWNER
CLIENT SIGNATURE — DATE
ENGINEER SIGNATURE — DATE
DRAWN: TD — DATE: 2024/10/08
CHECKED: - — DATE
DRAWING STATUS: INFO ONLY | COUNCIL | CONSTR
SCALE: 1:100

PROJECT: KURHULA WILDLIFE LODGE, PARSONS NATURE RESERVE, HOEDSPRUIT
DRAWING TITLE: MASTER SITE PLAN
COMPUTER REFERENCE: Q:\00-DN-Arch\DNA-2024-Current\DNA-2024-009-Kurhula Lodge
PROJECT No: DNA-2024-009
DRAWING No: 000
REVISION: 00B

A1

Q:\00-DN-Arch\DNA-2024-Current\DNA-2024-009-Kurhula Lodge\04_Drawings\02. Revit\Kurhula Lodge_Renovations_20241212.rvt

APPENDIX D: MOTIVATION FOR EXCLUSION OF SPECIALIST STUDIES (VERIFICATION REPORT)

Earthlink Environmental Services

SITE SENSITIVITY VERIFICATION REPORT

For the proposed expansion of Kurhula Lodge near Hoedspruit, within the Maruleng Local Municipality, Limpopo Province.

Prepared by:

Earthlink Environmental Services

Applicant:

OM Holdings SA (Pty) Ltd

Competent Authority:

Limpopo Economic Development, Environment and Tourism

February 2025

PURPOSE OF THE DOCUMENT

The main aim of the Site Sensitivity Verification Report is to confirm the current use of the land and the environmental sensitivity of the site under consideration (I.e., a proposed development site where an Environmental Authorisation (EA) in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and associated 2014 Environmental Impact Assessment (EIA) regulations, as amended is required as identified by the national web-based environmental screening tool. This should be undertaken prior to commencing with any specialist assessment/s. The site sensitivity verification must be undertaken using:

- ✓ A desktop analysis using satellite imagery.
- ✓ A preliminary onsite inspection; and
- ✓ Any other available and relevant information

The outcome of the site sensitivity verification must be recorded in the form of a report that:

- ✓ Confirms or disputes the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;
- ✓ Contains a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and
- ✓ Is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations1 (EIA Regulations).

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1 INTRODUCTION

Earthlink Environmental Service was appointed by Kurhula Lodge to undertake the required Environmental Authorisation (EA) application process in terms of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) promulgated under the National Environmental Management Act, 1998 (No. 107 of 1998; NEMA) for the proposed expansion of Kurhula Lodge near Hoedspruit, within the Maruleng Local Municipality, Limpopo Province.

A site sensitivity verification assessment has been undertaken by the appointed Environmental Assessment Practitioner to verify the sensitivity results given by screening report for all themes identified and to recommend which specialist are required.

1.1 Project Locality

The proposed expansion of Kurhula Lodge is situated near Hoedspruit, within the Maruleng Local Municipality of the Limpopo Province, South Africa. Kurhula Wildlife Lodge is located on the banks of the Olifants River in Balule, Parsons Nature Reserve, which is part of the Greater Kruger Park area. The lodge is accessible via a 12-kilometer dirt road, primarily composed of gravel, stones, and sand.

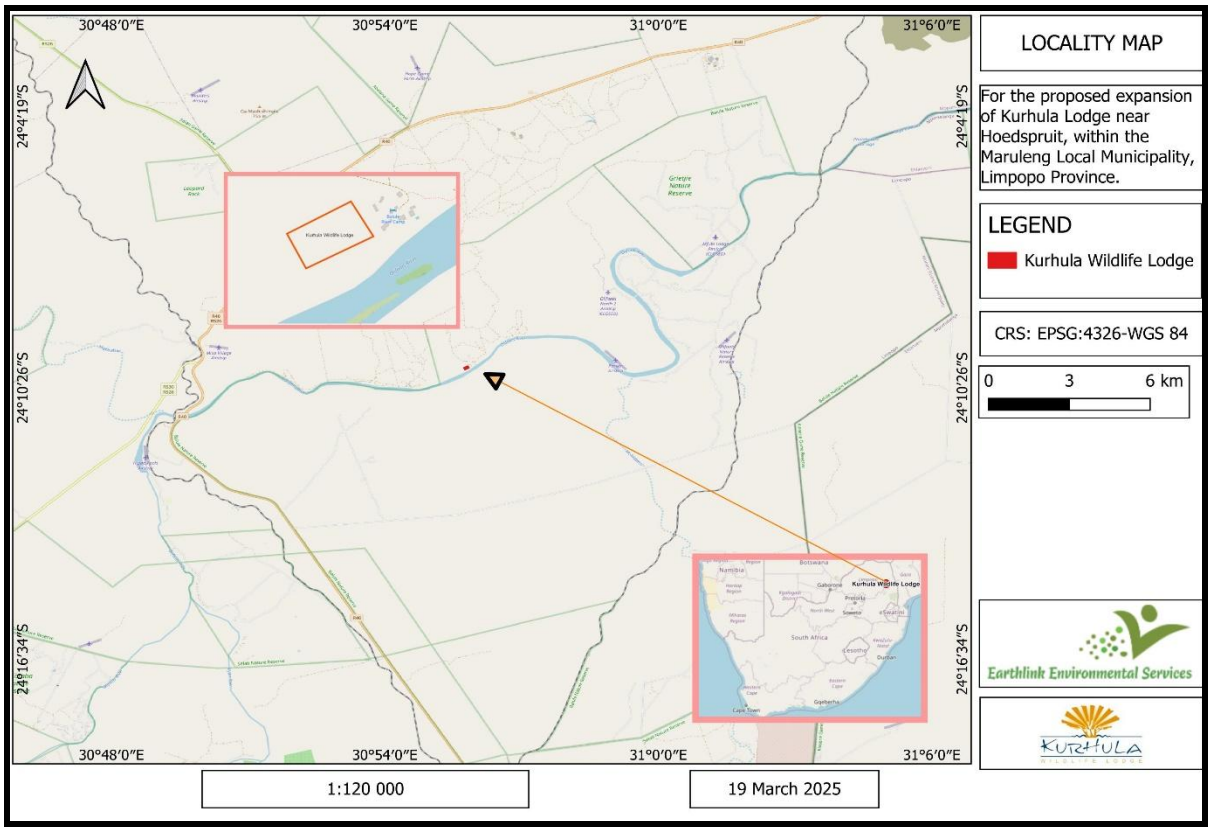

Figure 1: Locality Map

Figure 2: Google Earth Aerial Image showing the proposed expansion of the Lodge

2 DFFE SCREENING TOOL ASSESSMENT

The DFFE has created a nationwide screening tool to detect areas that may be environmentally sensitive within and near the designated location. It is now mandatory for all applications seeking environmental authorization to include a screening report of this nature.

The environmental sensitivity identified by the screening tool for the proposed infrastructures are shown in Table below:

Table 1: Site Sensitivity as per DFFE Screening Report.

Theme	Very High Sensitivity	High Sensitivity	Medium Sensitivity	Low Sensitivity	Reasons Given by Screening Report
Agricultural Theme			X		Land capability; 01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
Animal Species Theme		X			High due to: • Aves-Terathopius ecaudatus • Aves-Torgos tracheliotos • Aves-Polemaetus bellicosus • Aves-Bucorvus leadbeateri • Aves-Aquila rapax • Aves-Gyps africanus • Sensitive species 21 • Aves-Scotopelia peli • Aves-Ephippiorhynchus senegalensis • Aves-Mycteria ibis • Reptilia-Crocodylus niloticus
Aquatic Biodiversity Theme				X	Low sensitivity
Archaeological and Cultural Heritage Theme				X	Low sensitivity
Civil Aviation Theme		X			Within 8 km of other civil aviation aerodrome Dangerous and restricted airspace as demarcated
Defence Theme			X		Military and Defence Site
Palaeontology Theme			X		Medium: Features with a Medium paleontological sensitivity
Plant Species Theme			X		Sensitive species 1252

Theme	Very High Sensitivity	High Sensitivity	Medium Sensitivity	Low Sensitivity	Reasons Given by Screening Report
Terrestrial Biodiversity Theme	X				• Balule Nature Reserve • CBA 1 • National Protected Area Expansion Strategy (NPAES)

3 DESKTOP ANALYSIS OF POTENTIAL SITE SENSITIVITY

3.1 Satellite Imagery

The following figures below provide a satellite images of the Kurhula Lodge on goggle earth.

Figure 3: Aerial image of Kurhula Lodge

3.2 Limpopo Conservation Plan version 2

Figure 4: SANBI BGIS Showing the Lodge within Critical Biodiversity Area 1 (lodge in Red Polygon)

4 SPECIALIST ASSESMENT

As part of the site sensitivity verification assessment, the designated Environmental Assessment Practitioner (EAP) has reviewed the sensitivity findings from the screening report. On 22 March 2025, a site visit was carried out, during which the Environmental Assessment Practitioner (EAP) conducted a personal inspection of the area. Several photographs were taken to capture a general overview of the site's sensitivities and identified the necessary specialists. The EAP has confirmed the site's sensitivity and the relevant themes for this development and will determine whether the required specialist studies will be conducted or omitted in compliance with the prescribed specialist protocol.

Table 2: Site Photos of Kurhula Lodge expansion.

4.1 Specialists to Be Conducted

4.1.1 Terrestrial Biodiversity Theme (Including Plant and Animal Themes)
Approximately 1418m^2 of vegetation will be cleared within the Critical Biodiversity Area and as per the screening tool protocol, a Terrestrial Biodiversity assessment is required, however Terrestrial Compliance Statement has been undertaken by Ntumbuluko Consulting (Pty) Ltd because the completion of the terrestrial biodiversity assessment led to a disputing of

classification for the terrestrial biodiversity theme sensitivity as allocated by the National Environmental Screening Tool. The project area has been assigned a Very High sensitivity, however that the piece of land that was earmarked for the expansion has been transformed and no species of special concern were observed within the area, and therefore a Medium sensitivity can be assigned.

4.1.2 Heritage

Heritage assessment, a heritage (archaeology and palaeontology) assessment would be required to assess the any heritage aspects that may be available onsite. The assessment has been undertaken by Sasha Heritage Consultants.

4.1.3 Aquatic Biodiversity

The theme has been assigned loa sensitivity by the screening tool. However, an aquatic biodiversity compliance is required especially because Kurhula Lodge is located approximately 90m away from Olifants River. The Kurhula Lodge and the Olifants River are separated by riparian vegetation and strict measures would be required to be implemented. Aquatic assessment is required and has been undertaken by Ntumbuluko Consulting (Pty) Ltd.

4.2 Excluded Specialist

4.2.1 Visual Impact Assessment

Given that this is an expanding of an existing lodge, the visual impact assessment will not be necessary for this project. The project and construction activities are not situated in an area visible to the public and as such the construction impact will not be an issue to the public. The Visual impacts have however been assessed by the EAP and included in the Basic Assessment Report nd the EMPr to mitigate any possible visual impacts.

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4.2.2 Socio Impact

The socio-economic impacts will be addressed within the Basic Assessment report and the Environmental Management Programme report by the EAP and as such, specialist assessment for this aspect is not required.

5 CONCLUSION

A Screening Tool Report which was generated for the proposed development yielded several themes that were considered as having very high, high, medium and low sensitivity. Overall, due consideration has been given to the potential impact of the proposed development on the recorded sensitivity themes and those that are not 'low' have been addressed via specialist assessments or compliance statements.

It is the opinion of the EAP that all factors regarding the above-mentioned themes were considered in this site sensitivity verification report and that the development will not have a significant impact on the recorded sensitivities other than those detailed in the BAR.

Based on the outcome of this Site Sensitivity Verification report, the following studies are required:

- **Terrestrial Biodiversity Assessment**
- **Heritage Assessment**
- **Aquatic Compliance Statement**

APPENDIX E: ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)

PROPOSED EXPANSION OF KURHULA LODGE NEAR HOEDSPRUIT, MARULENG LOCAL MUNICIPALITY WITHIN THE MOPANI DISTRICT MUNICIPALITY, LIMPOPO PROVINCE.

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

Report prepared by: Consultants: Earthlink Environmental Consultants Tel: 010 634 2349 Email:	**Report Prepared for:** OM Holdings SA (Pty) Ltd Tel:066 96 885 7453 Adress:16 Sadie St, Eden Glen, Edenvale, 1613 Company reg: 2024/224701/07
Earthlink Environmental Services In rhythm with nature	KURHULA WILDLIFE LODGE

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ABBREVIATIONS:

BA	Basic Assessment
BAR	Basic Assessment Report
DFFE	Department of Forestry, Fisheries & Environment
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPR	Environmental Management Programme
Ha	Hectare
HIA	Heritage Impact Assessment
LEDET	Limpopo Economic Development, Environment and Tourism
I&AP	Interested and/or Affected Party
NEMA	National Environmental Management Act (1998)
NEMWA	National Environmental Management: Waste Act (2008)
NWA	National Water Act (1998)
WUL	Water Use Licence
WULA	Water Use Licence Application

CONTACT DETAILS

Table 1: Details of the EAP

Consultancy:		Earthlink Environmental Consultants
Project Team:		Ms. Lehlogonolo Chuene – Registered EAP Ms. Kgakile Mapoulo – Project Manager
Email Address:		Lehlogonolo@earthlinkenvironmental.co.za kgakile@earthlinkenvironmental.co.za
Contact no:		082 552 0299/071 878 8295
EAP Experience:	✓	✓ Experience: 10 years' experience ✓ Affiliation: EAPASA Registered ✓ Qualifications: ✓ MSc of Geography- University of Limpopo Current ✓ BSc Honours in Geography- University of Limpopo: 2014 ✓ BSc Environmental and Resource Studies

Table 2: Details of the Applicant

Applicant:	OM Holdings SA (Pty) Ltd
contact person:	Henry Walker
Contact no:	066 96 885 7453
Address:	16 Sadie St, Eden Glen, Edenvale, 1613

1 CHAPTER 1: PROJECT DETAILS

1.1 Introduction

Earthlink Environmental Consultants have been appointed to apply for Environmental Authorisation on behalf of OM Holdings SA (Pty) Ltd for the planned construction of a lodge on Portion 25 of Farm PARSONS 155 KT, situated near Hoedspruit in the Maruleng Local Municipality, within the Mopani district of Limpopo Province, South Africa.

1.2 Project Description

The applicant, OM Holdings SA (Pty) Ltd is proposing the expansion of the existing lodge and renovation of Kurhula Lodge on farm Parsons 155 KT near Hoedspruit, Limpopo Province. Currently there are seven existing buildings. These buildings will be renovated with new internal layouts. Four of the existing buildings will have additions to increase the footprint. An addition of 3 new buildings will be added to the site. All drainage and water systems to make use of septic tanks and French drains. All water heaters and stoves to use gas.

The total area for expansion and vegetation clearance within a Critical Biodiversity is 1418m^2 and it will be done as follows:

- ✓ Total Lodge expansion Footprint = 886m^2
- ✓ Total Walkway (Gravel) = 532m^2

The proposed expansions indicated in the table below.

Aspect	**Proposed Expansion**
Guest Rooms	There will be an addition of 1 new guest lodge (owners' house) added to the site. With these new lodges the bedroom count is up to 12 beds in six guest packages. These cottages will receive an outdoor shower area and a covered deck that is connected to the lodges.
Manager's Cottage	There will be a new manager's cottage that will have two bedrooms in one cottage. The cottage will receive an outdoor shower area and a covered deck that is connected to the lodge.
Staff Quarter's	The existing staff sharing will be enlarged to accommodate a new working force that will have six rooms and twelve beds with workers sharing a room. The new staff quarters will have two outdoor areas. One will have a boma. No covered Patio or decking.
Ranger's Lodge	The existing ranger's lodge will be upgraded to a 4 bedroom and 4 beds ranger's lodge.
Main House	The main house has an existing deck and pool. This is also to be upgraded and enlarged.
Pent Lodge	The Pent Lodge will hold a hot tub on the existing decking.

Aspect	Proposed Expansion
Site Work	• New walkways have been established with gravel paths. • A drop off area in front of the existing house has been created with gravel. • All pathways and car paths are covered with gravel.

Table 3: Kurhula Lodge Project Centre Coordinates

Latitude:	Longitude:
24° 9'59.01"S	30°55'48.06"E

Table 4: General Information

Farm Name (s) and Number	PARSONS 155 KT
Portion number (s)	PARSONS 155 Portion 24
21-digit Surveyor General code	T0KT00000000015500000
Province	LIMPOPO
District Municipality	Mopani District Municipality
Local Municipality	Maruleng Local Municipality
Ward number/s	Ward 1
Nearest town (s)	Hoedspruit

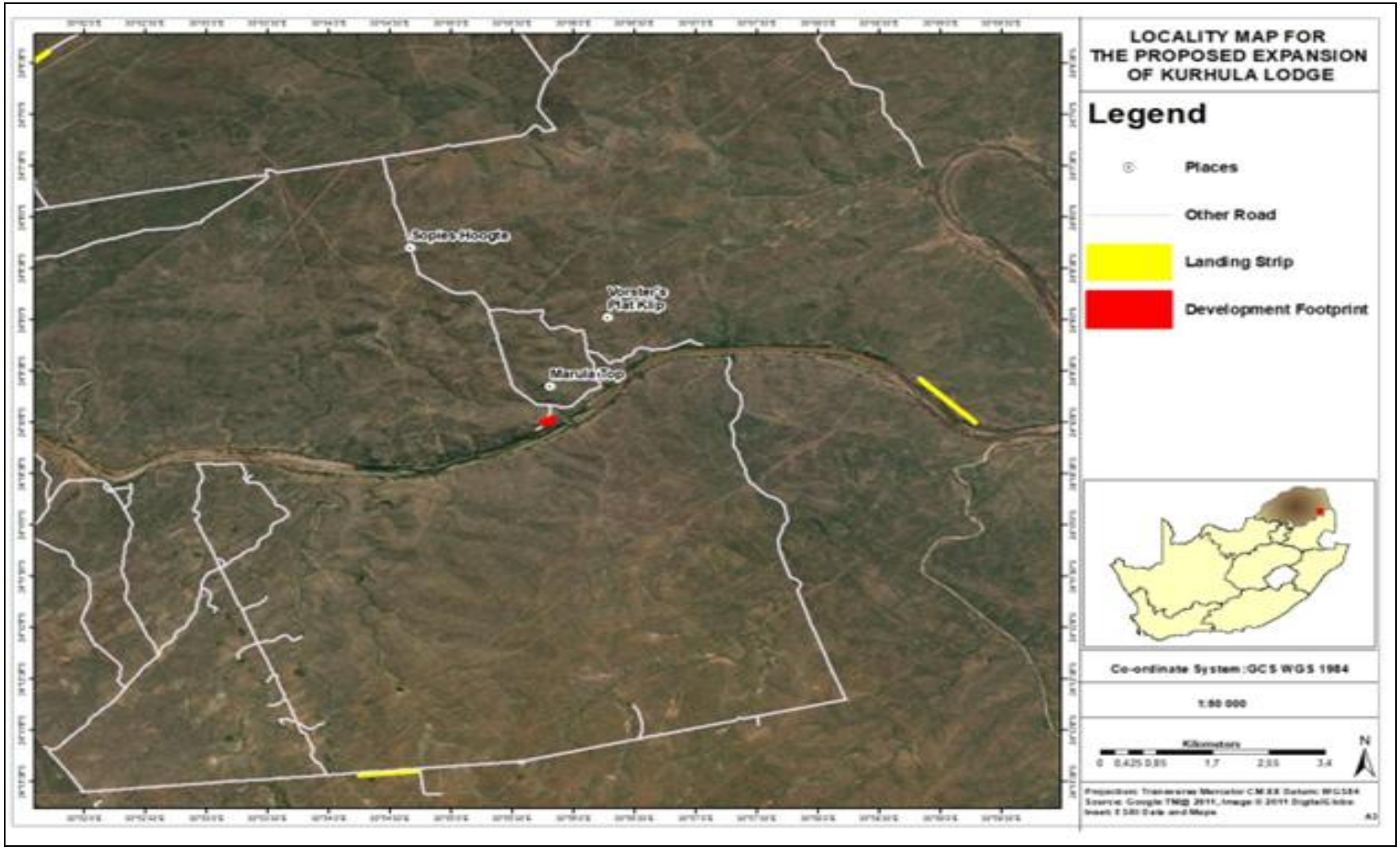


Figure 1: Locality Map (Indicated in red).

Figure 2: Sensitivity Map.

2 CHAPTER 2: PURPOSE AND OBJECTIVES OF THE EMPR

An Environmental Management Programme (EMPr) is a comprehensive environmental management tool designed to ensure that any undue or reasonably avoidable adverse environmental impacts arising from the construction, operation, and decommissioning of a project are either prevented entirely or effectively mitigated. Simultaneously, it seeks to enhance the positive outcomes and long-term benefits associated with the project. The EMPr serves as a practical guide that translates environmental policy goals and regulatory requirements into actionable strategies, thereby ensuring consistency in the application of management and monitoring measures throughout all project phases, particularly those outlined during the environmental permitting and authorization process.

The primary purpose of this EMPr is to promote continuous environmental performance improvement throughout the life cycle of the expansion of the Kurhula Lodge project. This includes a strong emphasis on minimizing negative impacts on the natural and socio-economic environment, while also maximizing the potential benefits derived from the project. Importantly, a well-implemented EMPr does not only focus on immediate or short-term mitigation measures but also considers the cumulative and long-term environmental consequences of the project.

The key objectives of the EMPr are as follows:

- To clearly define the mitigation measures, environmental controls, and compliance requirements that must be implemented during each phase of the project—namely planning, construction, rehabilitation, and operation. These measures are aimed at preventing, minimizing, or managing environmental risks and reducing the severity of potential impacts on surrounding ecosystems and communities.
- To ensure that the project capitalizes on potential environmental and social benefits by incorporating sustainability principles into both construction and operational activities. It also seeks to prevent unjustified or avoidable harm to the environment during any stage of the project's execution.
- To assign responsibilities and identify the roles of all relevant stakeholders, including contractors, environmental control officers (ECOs), site managers, and regulatory bodies. This ensures that environmental responsibilities are clearly communicated and that accountability is maintained throughout the project.
- To establish effective methods and timelines for monitoring, reporting, and evaluating environmental performance, with the goal of detecting and addressing non-compliance or unforeseen impacts early. The monitoring framework is essential to preventing long-term or irreversible environmental damage.
- To facilitate adaptive management by allowing for proactive and responsive actions in the event of unforeseen environmental incidents, risks, or necessary changes to the project's implementation that were not anticipated during the Basic Assessment (BA) process. This flexibility helps ensure that the project

remains compliant with environmental regulations and responsive to changing environmental conditions or stakeholder concerns.

In summary, this EMPr is a dynamic and integral component of responsible project management. It provides a structured approach to safeguarding the environment while supporting the successful delivery and sustainable operation of the Kurhula Lodge. Its implementation ensures that environmental considerations remain central throughout the life of the project, thereby supporting both regulatory compliance and broader environmental stewardship goals.

2.1 Structure of an EMPr

An EMPr focuses on sound environmental management practices, which should be undertaken to minimise adverse impacts on the environment through the lifetime of a development. In addition, an EMPr identifies which measures will be in place or will be actioned to manage any incidents and emergencies that may occur during all phases of the lodge renovations. However, this EMPr has been developed particularly for the Kurhula Lodge constructions and renovations. This EMPr provides specifications that should be adhered to, in order to minimise adverse environmental impacts associated with the construction of kurhula Lodge.

According to Appendix 4 of GNR.326, as amended, an EMPr must include:

1. An EMPr must comply with section 24N of the Act and include—	**Section in the Report**
(a). details of– (i) the EAP who prepared the EMPr; and (ii) the expertise of that EAP to prepare an EMPr, including a curriculum vitae.	**Section 1 and Section 4**
(b). a detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description.	**Section 1**
(c). a map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	**Section 1**

(d). description of the impact management outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including– (i) planning and design; (ii) preconstruction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities	**Section 3**
(f) a description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraph (d) will be achieved, and must, where applicable, include actions to — (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practices; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;	**Section 3**
(g) the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	**Section 2**

(h) the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	**Section 2**
(i) an indication of the persons who will be responsible for the implementation of the impact management actions;	**Section 2**
(j) the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	**Section 2**
(k) the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	**Section 2**
(l) a program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	**Section 2**
(m) an environmental awareness plan describing the manner in which— (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and	**Section 2**
(n) any specific information that may be required by the competent authority.	**Section 3**

3 CHAPTER 3: MANAGEMENT AND MITIGATION MEASURES: CONSTRUCTION PHASE

Responsibility: Impact prevention, mitigation and/or management measures during the development (construction and planting) phase is ultimately the responsibility of the EA holder, although contractors and/or employees will be responsible for the day-to-day implementation of components of the EMPR.

Timeframe: The measures specified in the following sections for minimisation and mitigation of construction-phase impacts will be limited to the development phase, after which the recommended operational phase measures will become applicable.

Monitoring: Environmental compliance monitoring must be done by an independent Environmental Control Officer (ECO) on at least a monthly basis. Should any instances of non-compliance be found, this must be brought to the attention of the contractor or site foreman, along with recommended measures for rectifying the non-compliance.

Reporting: Monitoring reports, indicating the level of compliance with the specifications of the EMPR, must be submitted to the Limpopo Economic Development Environment and Tourism by the ECO at six-monthly intervals and at the end of the development phase.

3.1 CONSTRUCTION PHASE

Table 3: Operational Phase Mitigation Measures Mitigation measures applicable to anticipated development-phase impacts

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
Pre- Construction				
1	Independent ECO	➢ An independent ECO must be appointed by OM Holdings SA (Pty) Ltd and Projects to monitor compliance with the Environmental Authorisation during construction. The ECO must be appointed prior to the commencement of construction and be involved in all aspects of project planning that can influence environmental conditions on the site. Where possible, the ECO must attend relevant project meetings, conduct inspections to assess compliance with the EA and EMPr.	Applicant	Once off appointment, continuous monitoring
Construction Phase				
1	Employment	In order to strengthen the local economy of the area, the contractor/developer must make sure that local labour is engaged whenever possible.	Contractor	Once off
2	Site Establishment	➢ Where possible construction area must be properly delineated and cordoned off using shade cloth fencing, especially where trenches are being dug. ➢ To make sure the public is informed of the construction operations, appropriate signage must be put up on the property. ➢ The construction camp should have waste storage places, and waste segregation should be done there. The site camp shouldn't be situated on any sloping terrain.	Contractor/EAP	Ongoing

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
		➢ There should be enough room to store all additional equipment needed for or employed in the construction activities. ➢ The contractor is responsible for providing and maintaining portable restrooms. ➢ It is not permitted to dispose of waste from portable restrooms in the environment.		
3	Waste Management	➢ The general waste collection schedule and the containment to be utilized for collection, i.e., waste skips, should be agreed upon with the Maruleng Local Municipality Waste and Environmental Services. ➢ The Contractor should supply sealable and properly marked domestic waste collection bins and all solid waste collected shall be disposed of at a licensed disposal facility ➢ Hazardous waste shouldn't be combined with general waste. ➢ All storage facilities must always have fire prevention equipment available, and no waste should be burned on site. ➢ All construction supplies must be kept in a secure location with restricted access on a suitable impermeable surface. ➢ All hazardous materials must be kept in bunded areas or other secure locations (such as oil drums, diesel, etc.). ➢ Where a registered disposal facility is not available close to the project area, the contractor shall provide a method statement concerning waste management. Under no circumstances may domestic waste be burned on site.	Contractor	Daily

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
		➢ Refuse bins will be emptied and secured Temporary storage of domestic waste shall be in covered waste skips. The maximum domestic waste storage period will be 10 days.		
4	Impact on Geology, Soil and Erosion	➢ The development must be undertaken during dry season to avoid soil erosion. ➢ The contractor should stockpile soil in the approved locations. ➢ To prevent the loss, topsoil stockpiles should be shielded from wind and rain. ➢ Actions should be taken to prevent soil erosion and loss. ➢ Put in place a rehabilitation program.	Contractor	Ongoing
5	Surface and Groundwater Impacts	➢ Construction efforts should be confined to the development's proposed footprint. ➢ Impermissible surfaces must be used for cement mixing. ➢ Washing and maintenance of vehicles and equipment must be conducted in the areas designated for this purpose. ➢ To reduce or eliminate soil contamination, construction vehicles should undergo regular inspections before usage or while they are stationary. ➢ To prevent soil contamination with hydrocarbons or lubricants, construction trucks cannot be serviced on the site. ➢ Diesel/fuel should be stored on an impermeable surface. ➢ Drip trays must be provided for generators, or any machinery that will be in position for longer than one day. Bunding must be present around all diesel tanks, oil drums and generators.	ECO, geohydrological Specialist (When required) and Contractor	Ongoing

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
		➢ Where oil and fuel spills are expected, parking is to be on an impervious surface with adequate pollution control mechanisms in place. ➢ Accidental spills must be attended to immediately and details recorded in an on-site logbook. The details must include date and locality of spill, distance to the nearest watercourse, type of material, estimated quantity of spill, contact details of the people involved, mitigation steps taken and results of any subsequent monitoring. ➢ Temporary (mobile) on-site toilet facilities must be available and properly maintained. Staff shall not be permitted to use the natural environment as a toilet. ➢ During and after construction areas of exposed soil can easily erode, a well-designed stormwater system must be put in place to avoid erosion onsite.		
6	Air Quality Dust and Odour	➢ The chemical toilets should be cleaned and serviced weekly. ➢ Fires shouldn't be permitted on site to prevent emissions into the ambient air. ➢ To reduce the production of dust, all surfaces that are not paved should be regularly sprayed with water to supress any dust. ➢ Any rubble created during the construction shouldn't be kept on-site for longer than two weeks as it will become vulnerable to wind action.	ECO, Contractor	On- going
7	Noise Management	➢ The Occupational Health and Safety Act's regulations must be followed during all operations during the building period (Act No 85 of 1993).	Contractor	On-going

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
		➢ Construction work must only be done during regular business hours (weekdays, 7 a.m. to 5 p.m., excluding holidays). ➢ On-site signage should be created to alert the public to construction operations. ➢ If construction must proceed after regular business hours, the neighbours and I&APs must be informed. ➢ The Contractor is required to take action to prevent workers from lingering and making noise disturbances in the vicinity.		
8	Storm Water Management	➢ Stormwater must be directed away from cleared areas and material stockpiles. ➢ Cement mixing must be done on a permeable surface and must be cleaned up each day to avoid been carried away by storm water during rainy days. ➢ The Stormwater Management Plan must be put into practice to guarantee effective stormwater management on the site both during and after construction.	Contractor	Ongoing
9	Visual Aesthetics	➢ The construction sites and camps should be kept neat, clean, and organized in order to portray a generally tidy appearance. ➢ Rubble and other building materials should be removed from the construction site as soon as possible or put in a container to keep it clear of more ugly aspects. ➢ Ensure that 'good housekeeping 'is practiced on the construction site.	Contractor	Ongoing
10	Safety and Security	➢ Sites that require PPE must have signs put up there. ➢ Trenches that have been dug must be cordoned off to protect those who are unaware of their presence.	Site Manager, ECO and Contractor	Ongoing

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
		➢ The contractor's office and site entrance should have emergency contact information available and visible. ➢ PPE should always be required on the job site. This also includes guests. ➢ To prevent unauthorized individuals from entering the construction site, the perimeter must be sufficiently fenced off or access must be restricted. ➢ The proper medical supplies must be stored on-site and made readily available at all times.		
11	Heritage Resources	➢ If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager. ➢ The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify the SAHRA. ➢ After receiving written approval from the archaeologist, work may only resume.	Site Manager/ Contractor	On- going
12	Social Impacts	➢ An HIV/AIDS awareness/education component should be included in the induction programme for all personnel working on the proposed road upgrades.	Contractor	Ongoing

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
		➢ Ensure that all staff members and people on site undergo safety training. ➢ Ensure that all staff members and people on site have suitable PPE. ➢ Ensure there is suitable signage informing public about construction activities. ➢ Ensure measures are put in place to prevent unauthorized people from accessing the site. ➢ In areas where construction will be approximately 1km of the nearest to residential and/or business property make use of noise reduction techniques such as sound barriers. ➢ Avoid undertaking construction activities after daylight hours. In instances when this is not possible ensure that potentially affected parties are informed. ➢ Ensure that 'good housekeeping 'is practiced on the construction site ➢ Dust caused by strong winds on exposed soils should be controlled by means of water spraying. ➢ In the event of security being compromised as a result of unintended damages suitable arrangements should be made to ensure suitable security is provided until such time as repairs have been made. ➢ Construction teams should be clearly identified by wearing uniforms and/or identification cards that should be exhibited in a visible place on their body.		

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
		➢ Instant dismissal and prosecution of any staff caught in criminal activities of any kind. ➢ Inform local law enforcement agencies of the possibilities of increased criminal activity in the area.		

4 CHAPTER 4: MANAGEMENT AND MITIGATION MEASURES: REHABILITATION AND OPERATIONAL PHASE

Responsibility: Responsibility for impact prevention, mitigation and/or management measures during the operational phase ultimately rests with the EA holder, but day-to-day implementation of mitigation / management measures will be the responsibility of the farm manager.

Timeframe: The measures specified in the following sections for minimisation and mitigation of operational-phase impacts will be applicable for the entire operational lifetime of the development.

Monitoring: It is advisable that environmental compliance be monitored on an annual basis, although this is not a legal requirement.

4.1 OPERATIONAL PHASE

Table 4: Operational Phase Mitigation Measures

Item	Aspect Impact/Issues	Mitigation Measures/Actions	Responsible party	Frequency of Action
Operational Phase				
1	Waste Management	➢ Waste generated on the site must be separated at sources into recyclable categories and non-recyclables. ➢ Waste must be recovered, recycled and reused to the greatest practical extent. ➢ The waste collection schedule and the containment to be utilized for collection, i.e., waste skips, should be agreed upon with the Maruleng Municipality Waste and Environmental Services. ➢ The developer should supply sealable and properly marked domestic waste collection bins and all solid waste collected shall be disposed of at a licensed disposal facility ➢ Hazardous waste shouldn't be combined with general waste. ➢ All storage facilities must always have fire prevention equipment available, and no waste should be burned on site. ➢ All hazardous materials must be kept in bunded areas or other secure locations (such as oil drums, diesel, etc.). ➢ Where a registered disposal facility is not available close to the project area, Under no circumstances may domestic waste be burned on site.	Contractor	Daily

		➢ Waste shall not be burnt unless in a waste management facility, or other facility, licenced for that purpose. Evidence of lawful disposal all wastes steams generated must be maintained.		
2	Impact on Soil and Erosion	➢ Soil erosion management methods should be adopted, such as re-vegetation, reseeding of grasses, and land preparation.	Contractor	Ongoing
3	Surface and Groundwater Impacts	➢ Storm water systems to be checked on a regular basis to ensure that they are working properly and there are no leaks, blockages, erosion and siltation. ➢ The use of all detergents, oil, fuels and chemicals which could potentially leach into underground water must be controlled. ➢ Install low-flow fixtures (toilets, taps, showers) to reduce water use and wastewater generation. ➢ Promote water-saving practices among staff and guests through signage.	ECO/Site Manager	Ongoing
4	Fire Management	➢ Identify and map fire-prone areas within and around the lodge ➢ Key personnel should be allocated to manage fire emergencies. ➢ Install smoke detectors, fire alarms, and portable fire extinguishers throughout all lodge buildings and operational areas. ➢ Develop a clear fire evacuation plan, including designated assembly points and escape routes.	ECO/Site Manager	Ongoing
5	Safety and Security	➢ Implement controlled access to the lodge premises using gates, security checkpoints, and visitor registration protocols. ➢ Maintain a logbook or digital record of all visitors, staff, contractors, and deliveries. ➢ Erect and maintain secure fencing around the property to prevent unauthorized access and wildlife intrusion.	ECO/Site Manager	Ongoing

		➢ Install adequate security lighting around entrances, pathways, parking areas, and critical infrastructure. ➢ Employ trained and licensed security staff to patrol the property and respond to incidents. ➢ Where legally permitted and necessary, store any firearms for wildlife protection in secure, lockable safes. ➢ Clearly display safety signage (e.g., no swimming, wildlife warnings, emergency exits). ➢ Develop and maintain a site-specific Emergency Response Plan, including procedures for fire, medical emergencies, severe weather, and security threats. ➢ Implement a formal system for recording and investigating safety or security incidents, with corrective action plans. ➢ Maintain hygiene and health protocols as per national health guidelines.		
6	Social Impacts	➢ Prioritise hiring from local communities to support job creation and reduce unemployment. ➢ Offer training and skills development programs to build capacity and promote career growth for local employees. ➢ Source goods and services from local suppliers wherever possible to stimulate the local economy.	Contractor	Ongoing

5 CHAPTER 5: ENVIRONMENTAL AWARENESS PLAN

This **Environmental Awareness Plan** outlines the training framework, procedures, and objectives aimed at enhancing environmental knowledge, responsibility, and performance among all personnel involved in the project. The plan is intended to foster a culture of environmental stewardship by improving awareness, ensuring appropriate training, and building competency in environmental practices. It supports the broader objectives of the Environmental Management Programme (EMPr) by ensuring that everyone working on the project. Whether directly or indirectly involved is informed of their environmental responsibilities and the potential consequences of their actions.

5.1 Objectives: Competence, Training, and Awareness

To uphold the project's environmental integrity, the Applicant is committed to ensuring that all personnel employees, contractors, and subcontractors—are equipped with the knowledge, skills, and awareness necessary to effectively manage the environmental aspects of their roles. The objectives of the environmental awareness component include the following:

- Ensuring Environmental Competency
  The organisation shall ensure that any individual performing tasks that may cause a significant environmental impact is competent based on relevant education, training, and/or experience. Documentation and records of such competencies will be maintained and made available for verification.
- Identifying and Addressing Training Needs
  The organisation will systematically identify training needs related to significant environmental aspects and the requirements of the environmental management system (EMS). Measures, including targeted training and continuous learning opportunities, will be implemented to meet these needs. All training activities will be recorded and regularly reviewed.
- Raising Awareness of Key Environmental Principles
  Procedures will be implemented and maintained to ensure that all personnel are made aware of:
    - The importance of complying with the organisation's environmental policy, procedures, and EMS requirements;
    - The significant environmental aspects and their actual or potential impacts related to their work, along with the environmental benefits of improved individual performance;
    - Their specific roles and responsibilities in maintaining EMS compliance and achieving environmental objectives;
    - The possible consequences of failing to adhere to prescribed environmental procedures.

This proactive approach ensures a well-informed workforce that is both capable and motivated to minimize environmental risks throughout all phases of the project.

5.2 *Environmental Risks and Priorities*

Environmental awareness training will include comprehensive coverage of the key environmental risks and mitigation measures identified in the EMPr. Training sessions will focus on equipping staff with the knowledge and tools to recognize, prevent, and manage these risks effectively.

The priority topics for awareness training include, but are not limited to:

- Understanding the Environmental Authorisation: Familiarization with the legal and procedural requirements of the project's environmental authorisation;
- Adherence to the EMPr: In-depth understanding of the environmental management measures and commitments outlined in the EMPr;
- Heritage Resource Protection: Implementation of chance find procedures in the event of unearthing cultural or heritage artifacts;
- Fire Prevention and Response: Awareness of fire risks and appropriate emergency procedures;
- Hazardous Substances: Management of spills, leaks, and the potential for explosions involving hazardous materials;
- Waste Management: Safe handling, segregation, storage, and disposal of waste in accordance with regulations;
- Erosion and Stormwater Control: Preventative and remedial measures to manage erosion and protect soil integrity.

These topics will be incorporated into all awareness training sessions to ensure that personnel are well-prepared to handle environmentally sensitive scenarios during the project lifecycle.

5.3 *Training and Awareness Methodology*

The delivery of environmental awareness and training will be structured, consistent, and continuous throughout the project, particularly during the high-impact phases such as construction. The training strategy includes:

- Induction Training: Prior to commencing any construction activities, all personnel will undergo an environmental induction. This initial training session will provide foundational knowledge about the project's environmental obligations, risks, and procedures.
- Toolbox Talks: Bi-weekly toolbox talks will be conducted on-site, covering rotating topics related to current environmental risks, findings from environmental inspections, and seasonal concerns. These short, focused sessions are intended to reinforce awareness and keep environmental performance top-of-mind.
- Site Notice Boards: Updated environmental training materials and bulletins will be posted on dedicated notice boards at prominent locations within the construction site. These resources will be refreshed every two weeks to provide continual access to important information, allowing workers to engage with the content at their convenience.

- Feedback and Continuous Improvement: Lessons learned from site inspections conducted by environmental specialists will be fed back into the training programme. This allows for the training content to evolve based on real-time issues and trends observed on-site, ensuring relevance and effectiveness.

In summary, this Environmental Awareness Plan is a key component in ensuring the project's compliance with environmental legislation and the EMPr. It promotes a proactive, informed, and environmentally responsible workforce, helping to prevent environmental harm while contributing to the success and sustainability of the project.

6 CHAPTER 5: CONCLUSION

This Environmental Management Programme (EMP), together with the accompanying Basic Assessment Report (BAR), has been compiled in accordance with the regulatory framework set out by the National Environmental Management Act (Act No. 107 of 1998) [NEMA], and the relevant provisions of the 2010 Environmental Impact Assessment (EIA) Regulations. The compilation of these documents reflects the proponent's commitment to adhering to legal requirements and ensuring that the development proceeds in an environmentally responsible and sustainable manner.

The EMP serves as a critical environmental management tool, specifically designed to guide the ongoing environmental performance of the proposed Lodge development during its operational phase. It provides clear and practical measures for minimizing potential environmental impacts, enhancing positive outcomes, and ensuring that the Lodge operates in harmony with its surrounding natural and socio-economic environment.

This EMP identifies key environmental risks associated with the construction and operational activities of the Lodge and outlines the procedures, monitoring programmes, roles, responsibilities, and reporting mechanisms necessary to manage these risks effectively. It also ensures that all personnel involved in the operation of the Lodge are informed of their environmental duties and that appropriate training and awareness programmes are in place.

In conclusion, the implementation of this EMP will assist in ensuring that the construction and operational phase of the Lodge aligns with the principles of sustainable development, complies with relevant environmental legislation, and contributes positively to environmental protection and social well-being. It is therefore an essential component in the responsible execution and long-term success of the proposed project.

APPENDIX F: PROOF OF PUBLIC PARTICIPATION

- ***Newspaper advert will be submitted to the LEDET with Final Basic Assessment Report***
- ***List of IAP will be submitted to LEDET with Final Basic Assessment Report***


NATUURRESERVAAT
BALULE
NATURE
RESERVE
PARSONS NATURE
RESERVE

APPENDIX G: DFFE SCREENING REPORT

SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

EIA Reference number:

Project name: Kurhula Lodge expansion

Project title: Kurhula Lodge Expandion

Date screening report generated: 04/03/2025 15:07:16

Applicant: OM Holdings SA

Compiler: Earth Link

Compiler signature: 

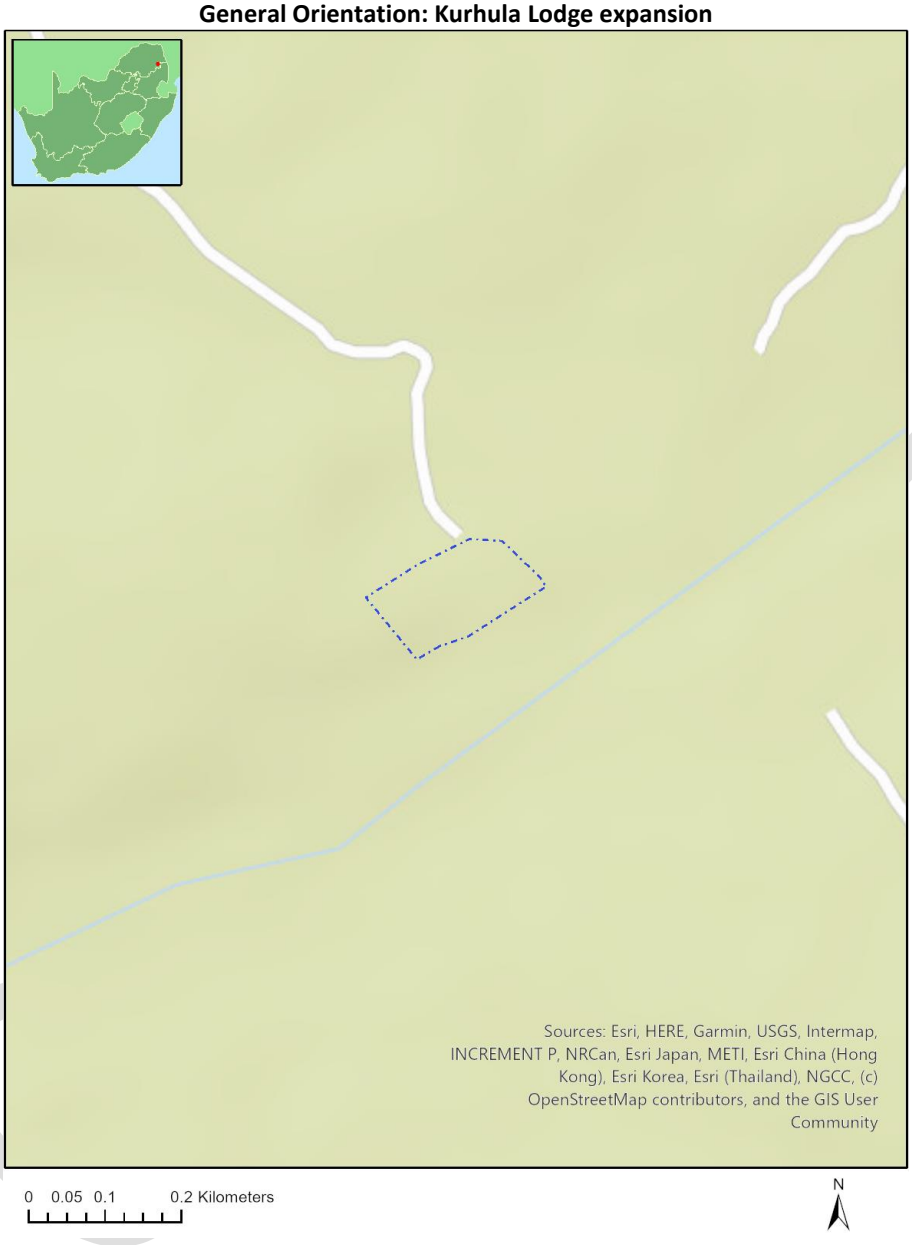
Application Category: Transformation of land|Indigenous vegetation

Table of Contents

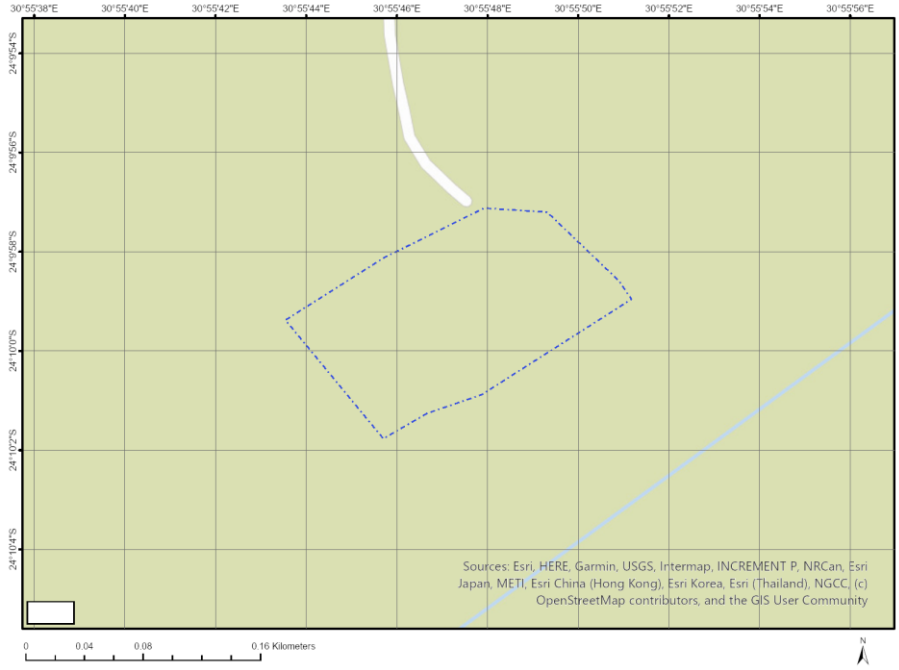
Proposed Project Location

Orientation map 1: General location

General Orientation: Kurhula Lodge expansion



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	PARSONS	155	0	24°8'53.24S	30°55'9.98E	Farm
2	PARSONS	155	24	24°9'45.39S	30°55'48.6E	Farm Portion
3	PARSONS	155	25	24°9'48.37S	30°55'41.96E	Farm Portion

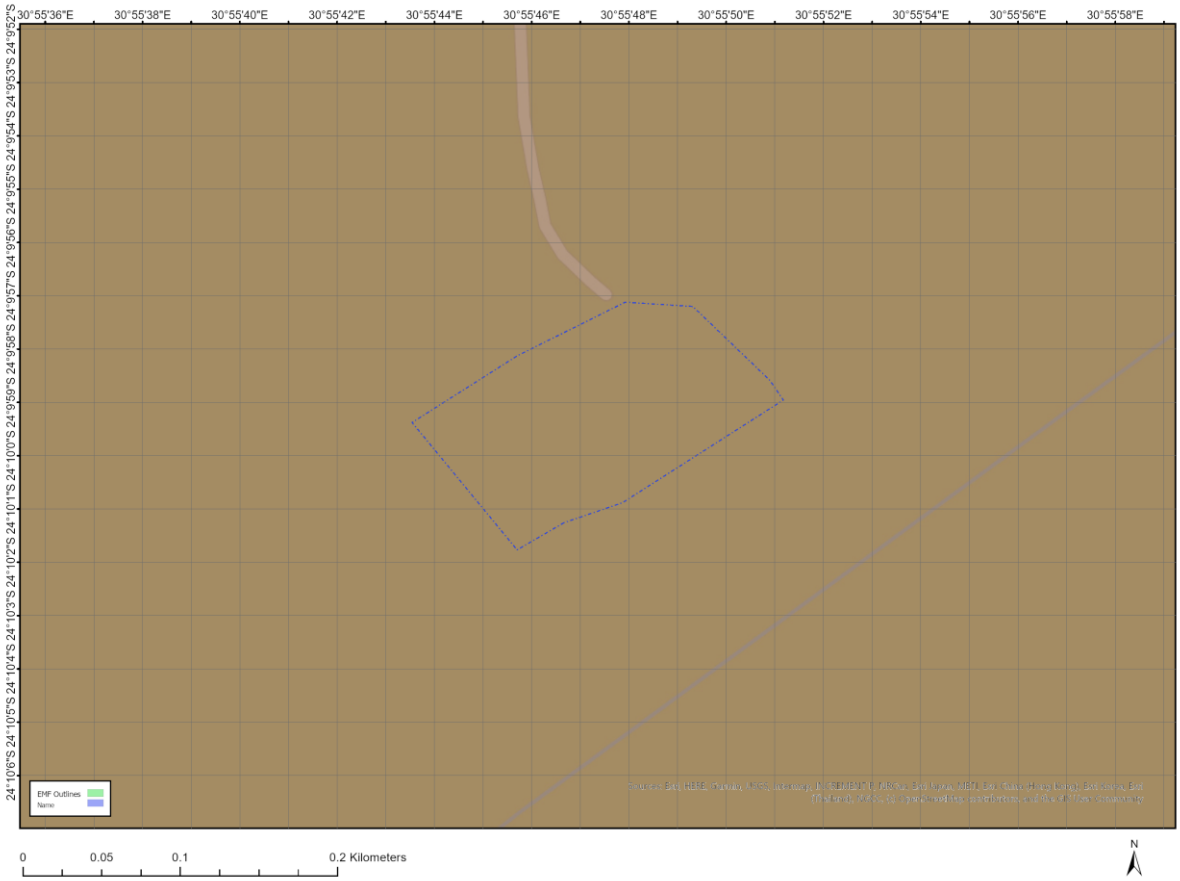
Development footprint[1] vertices:
No development footprint(s) specified.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No nearby wind or solar developments found.

[1] "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Olifants EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/Zone_46,_67,_78,_80,_92,_103,_122,_129.pdf

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is: **Transformation of land|Indigenous vegetation**.

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Kruger National Park Buffer	https://screening.environment.gov.za/ScreeningDownloads/Developmen

	tZones/knp_approved_plan.pdf
South African Protected Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SAPAD_OR_2024_Q3_Metadata.pdf
South African Conservation Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2024_Q3_Metadata.pdf

Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme		X		
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme			X	
Paleontology Theme			X	
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

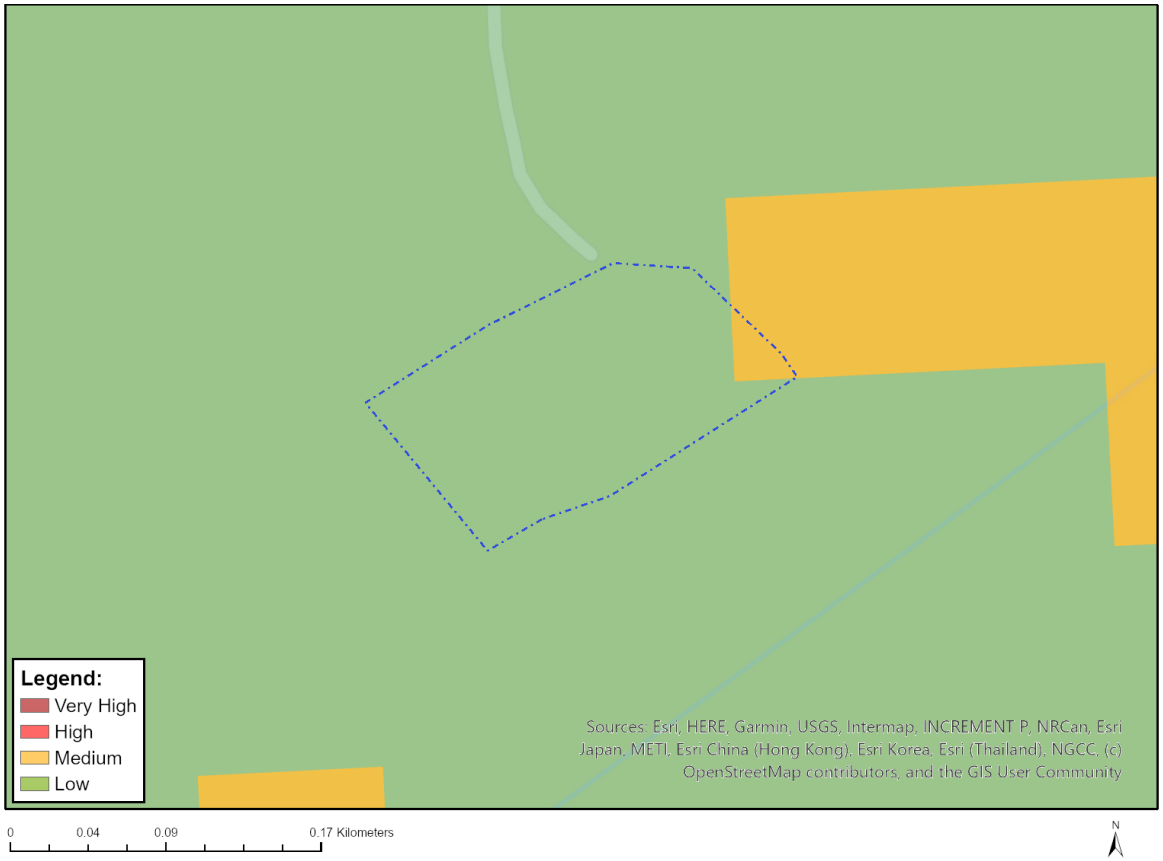
No	Specialist assessment	Assessment Protocol
1	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf

6	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
7	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
8	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

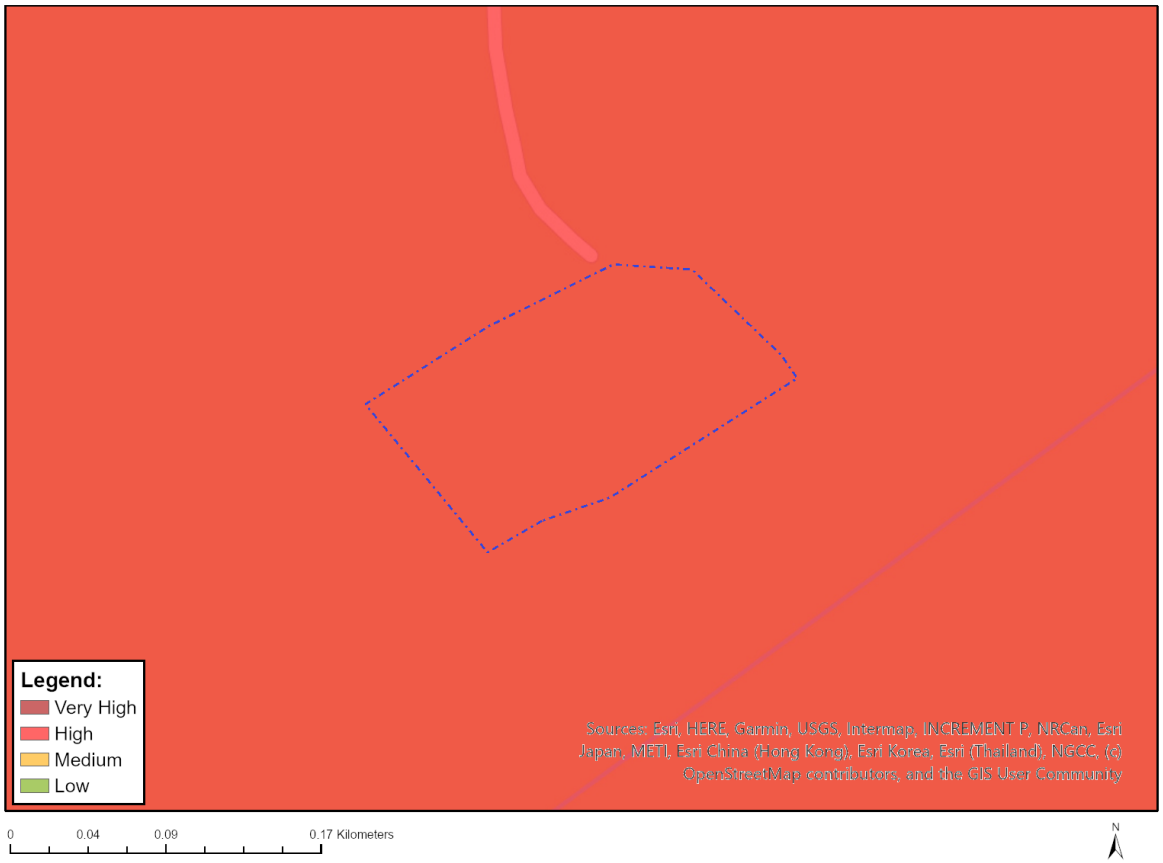


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	04. Low-Very low
Low	05. Low
Medium	06. Low-Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Terathopius ecaudatus
High	Aves-Torgos tracheliotos
High	Aves-Polemaetus bellicosus
High	Aves-Bucorvus leadbeateri
High	Aves-Aquila rapax
High	Aves-Gyps africanus
High	Sensitive species 21
High	Aves-Scotopelia peli
High	Aves-Ephippiorhynchus senegalensis
High	Aves-Mycteria ibis
High	Reptilia-Crocodylus niloticus
Medium	Aves-Podica senegalensis
Medium	Sensitive species 5

Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Lycaon pictus
Medium	Reptilia-Crocodylus niloticus

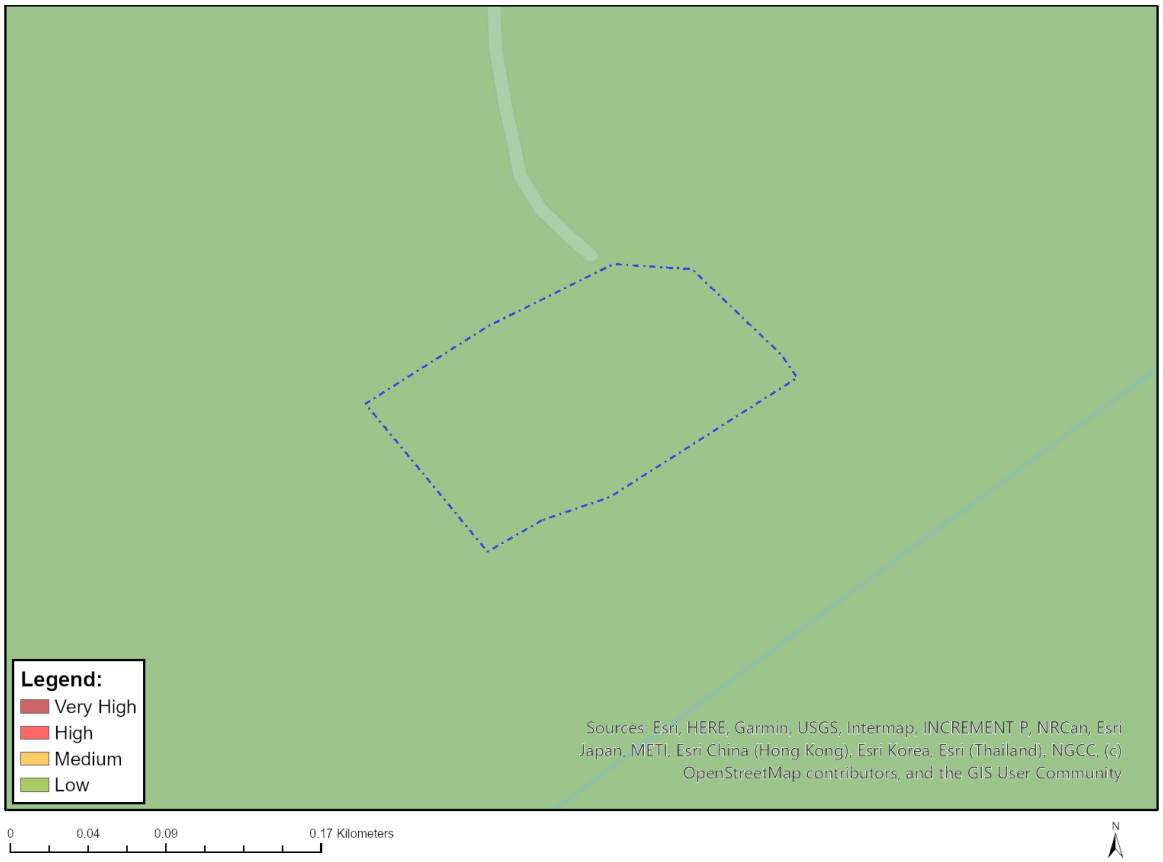
MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

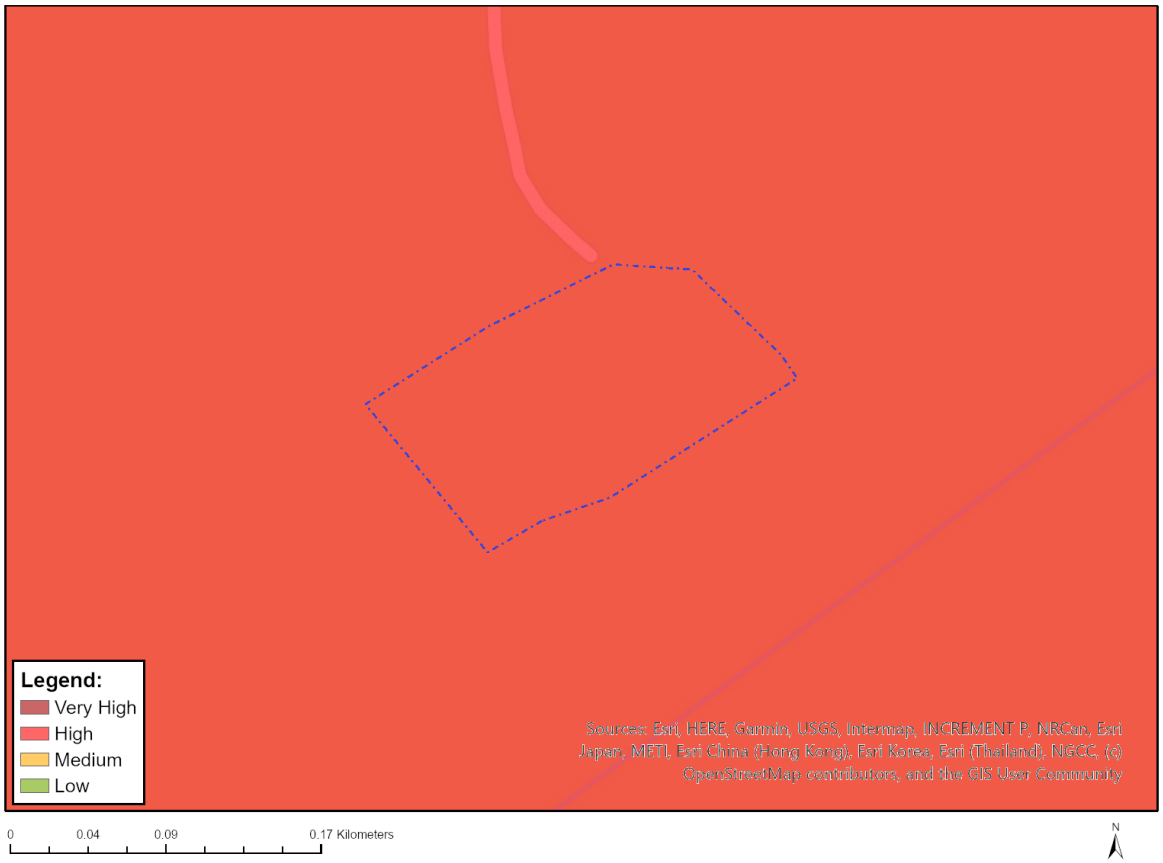


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

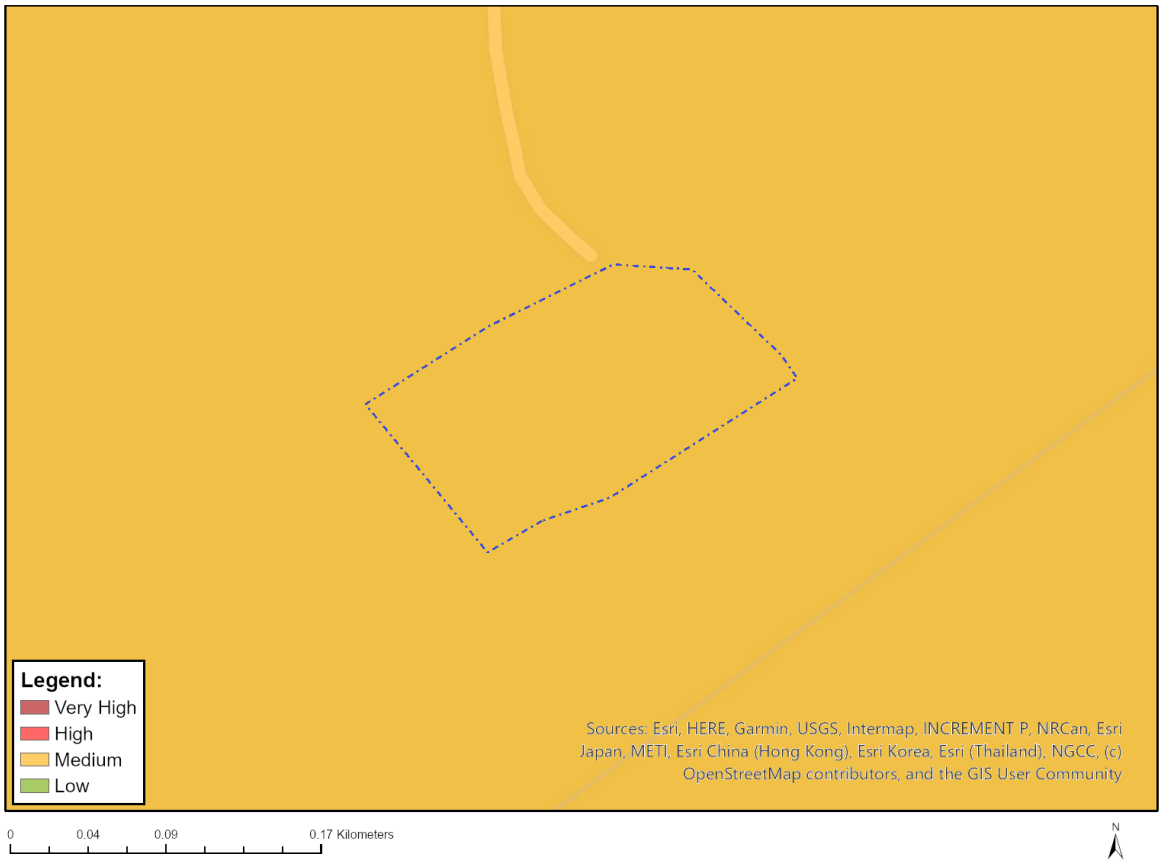


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
High	Dangerous and restricted airspace as demarcated

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

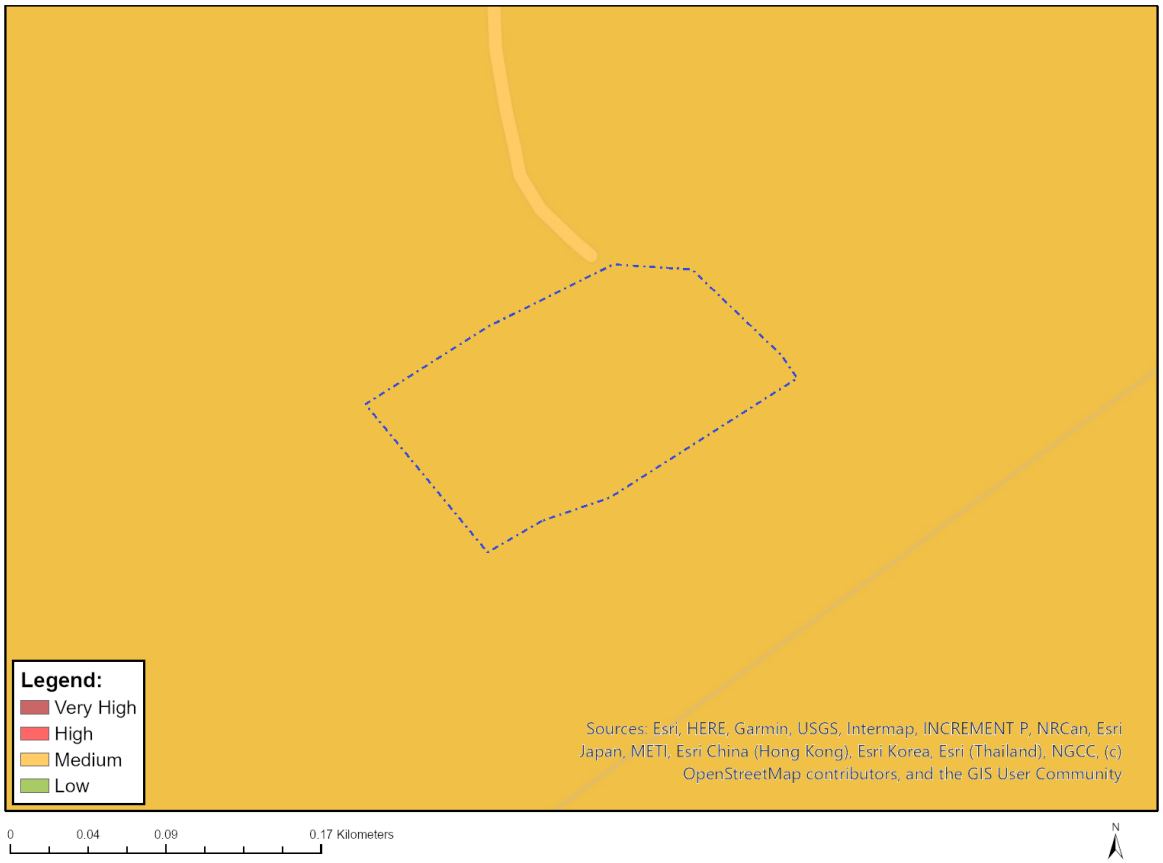


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Military and Defence Site

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

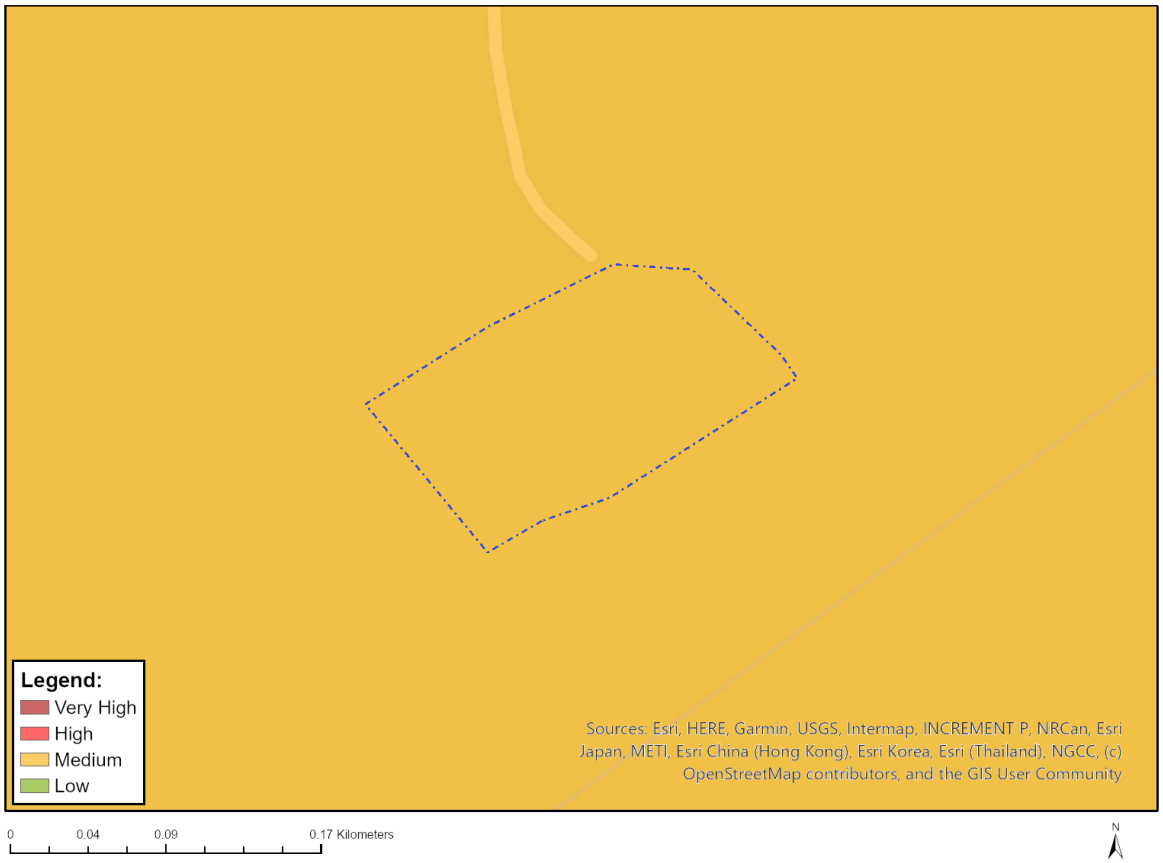


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Sensitive species 1252

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Balule Nature Reserve
Very High	CBA 1
Very High	National Protected Area Expansion Strategy (NPAES)

APPENDIX H: SPECIALIST REPORT

APPENDIX H1 – TERRESTRIAL BIODIVERSITY COMPLIANCE REPORT

TERRESTRIAL BIODIVERSITY COMPLIANCE STATEMENT:

FOR THE PROPOSED EXPANSION OF KURHULA LODGE NEAR HOEDSPRUIT, MARULENG LOCAL MUNICIPALITY WITHIN THE MOPANI DISTRICT MUNICIPALITY, LIMPOPO PROVINCE.

PRODUCED BY:

PRODUCED BY:	ENVIRONMENTAL ASSESSMENT PRACTITIONER	PRODUCED FOR:
 Physical Address: **5 13th Avenue, Fairlands, Randburg 2170** Mobile Number: **071 2082 364**Email: **info@ntumbulukoconsulting.co.za**	Earthlink Environmental Services	KURHULA WILDLIFE LODGE

MARCH 2025

CONDITIONS RELATING TO THIS REPORT

DECLARATION OF INTEREST

Ntumbuluko Consulting Pty (Ltd) has no vested interest in the property studied nor is it affiliated with any other person/body involved with the property and/or proposed development. Ntumbuluko Consulting Pty (Ltd) is not a subsidiary, legally or financially of the proponent. The study was undertaken by Mr Tshuxekani Maluleke, he is a registered Natural Scientists with the following details:

QUALIFICATIONS

SPECIALIST	QUALIFICATION
Mr Tshuxekani Maluleke (SACNASP Reg. No. 120501)	MSc Environmental Sciences (Wits University) BSc Hons Zoology (University of Limpopo) BSc Hons Animal, Plant and Environmental Sciences (Wits University)

APPROVAL

PREPARED BY:

Mr Tshuxekani Maluleke

Wetland and Biodiversity Specialist

MSc. Environmental Sciences

SACNASP

29 March 2025

INDEMNITY

Although Ntumbuluko Consulting Pty (Ltd) exercises due care and diligence in rendering services and preparing documents, the client takes full responsibility for this report and its implementation in terms of the National Environmental Management Act of 1998, and exempt Ntumbuluko Consulting Pty (Ltd) and its associates and their sub-contractors from any legal responsibility based on the timing of the assessment, the result and the duration thereof, which has an influence on the credibility and accuracy of this report. Ntumbuluko Consulting Pty (Ltd) accepts no liability, and the client indemnifies Ntumbuluko Consulting Pty (Ltd) and its directors, managers, agents, and employees against all actions, claims, demands, losses, liabilities, costs, damages, and expenses arising from or in connection with services rendered, directly or indirectly, by Ntumbuluko Consulting Pty (Ltd) and by the use of this document.

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LIST OF ABBREVIATIONS

CARA	Conservation of Agricultural Resources Act
CBA	Critical Biodiversity Area
CBD	Convention on Biological Diversity
CR	Critically Endangered
ESA	Ecological Support Areas
EN	Endangered
GIS	Geographic Information System
IPPC	International Plant Protection Convention
IUCN	International Union for Conservation of Nature
LC	Least Concern
NEMA	National Environmental Management Act (Act 107 of 1998)
NFEPA	National Freshwater Ecosystem Priority Areas
NT	Near Threatened
PA	Protected Areas
SANBI	South African National Biodiversity Institute
SSC	Species of Special Concern
VU	Vulnerable

DEFINITIONS

Alien animal	(a) Any live vertebrate, including a bird and a reptile, but excluding a fish, belonging to a species or subspecies that is not a recognised domestic species and the natural habitat of which is not in the Republic; or (b) The egg of such vertebrate.
Biodiversity	Means the diversity of animals, plants or other organisms, including the diversity of animals, plants or other organisms found within and between— (a) Ecosystems; (b) Habitats; (c) The ecological complexes of which these systems and habitats are part; and (d) Species.
CITES	Means the Convention on International Trade in Endangered Species of Wild Fauna and Flora;

Endangered Species	Means a species is endangered when it is facing a very high risk of extinction in the wild in the near future and includes— (*a*) Any living or dead specimen of such a species; or (*b*) Any egg, skin, bone, feather, seed, flower or any other part or derivative of such a species.
Environment	Means the surroundings within which humans exist and that are made up of— (*a*) The land, water and atmosphere of the earth; (*b*) Microorganisms, plant and animal life; (*c*) Any part or combination of (*a*) and (*b*) and the interrelationships amongst and between them; and (*d*) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing;
Indigenous plant	(*a*) Means any living or dead plant which is indigenous to the Republic, whether artificially propagated or in its wild state; and (*b*) Includes the flower, pollen, seed, cone, fruit, bulb, tuber, stem or root or any other part or derivative of such plant but does not include a plant declared a weed in terms of any legislation.
Protected area	Means— (*a*) A provincial nature reserves; (*b*) A site of ecological importance; (*c*) A protected environment; (*d*) A private nature reserves; or (*e*) A resource use area.
Protected environment	Means an area declared a Protected Environment or Private Nature Reserve in terms of section 21 (1) (*a*).

1 INTRODUCTION

Ntumbuluko Consulting (Pty) Ltd has been appointed by Earthlink Environmental Services (Pty) Ltd on behalf of the OM Holdings SA (Pty) Ltd to conduct a terrestrial biodiversity assessment (covering both Plant and Animal Species), and to compile a compliance statement for the proposed expansion of Kurhula lodge near Hoedspruit, Maruleng Local Municipality within the Mopani District Municipality, Limpopo Province.

To assess the baseline ecological state of the project area and to present a detailed description of the receiving environment, both a desktop assessment as well as a field survey were conducted in March 2025, during the wet season. Furthermore, the assessment and survey both involved the detection, identification and description of any locally relevant sensitive receptors, and the manner in which these sensitive receptors may be affected by the proposed development was also investigated.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations, 2014 (No. 326, 7 April 2017) of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998). The approach has taken cognisance of the recently published Government Notice 320 in terms of NEMA dated 20 March 2020 as well as the Government Notice 1150 in terms of NEMA dated 30 October 2020.''Procedures for the Assessment and Minimum Criteria for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorization''. The National Web based Environmental Screening Tool has characterized the terrestrial biodiversity theme for the project area as ''Very High'' sensitivity (National Environmental Screening Tool, 2022). However the due to the footprint of the proposed expansion, the sensitivity of the development footprint to ''Medium'' which requires a compliance statement.

The purpose of the specialist study is to provide relevant input into the overall assessment and application process. This report, after taking into consideration the findings and recommendations provided by the specialist herein, should inform and guide the Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making as to the ecological viability of the project and the impacts that its implementation may have on the natural environment.

2 PROJECT DESCRIPTION AND BACKGROUND

OM Holdings SA (Pty) Ltd plan to carry out existing renovations and alterations to the site on farm Parson 155 KT. Currently there are seven existing buildings. These buildings will be renovated with new internal layouts. Four of the existing buildings will have additions to increase the footprint. An addition of 3 new buildings will be added to the site. All renovations, alterations and additions must comply with SANS 10400 and the Parson's Nature Reserve Guidelines. All drainage and water systems to make use of septic tanks and French drains. All water heaters and stoves to use gas.

- Guest Rooms:

There will be an addition of 2 new guest lodges added to the site. With these new lodges the bedroom count is up to seven beds in six guest cottages. These cottages will receive an outdoor shower area and a covered deck that is connected to the lodges.

- Manager's Cottage:

There will be a new manager's cottage that will have two bedrooms in one cottage. The cottage will receive an outdoor shower area and a covered deck that is connected to the lodge.

- Staff Quarter's:

The existing staff shed will be enlarge to accommodate a new working force that will have six rooms and twelve beds with workers sharing a room. The new staff quarters will have two outdoor areas. One are will have a boma. No covered Patio or decking.

- Ranger's Lodge:

The existing ranger's lodge will be upgraded to a 4 bedroom and 4 beds ranger's lodge.

- Main House:

The main house has an existing deck and pool. This is also to be upgrade and enlarged.

- Pent Lodge:

The Pent Lodge will hold a hot tub on the existing decking.

- Site Work:

New walkways have been established with gravel paths.

A drop off area in front of the existing house has been created with gravel.

All pathways and car paths are covered with gravel.

- Total Area's:
- Site Area: 203 987.36 m^2
- Total Footprint = 886m^2
- Total Walkway (Gravel) = 532m^2

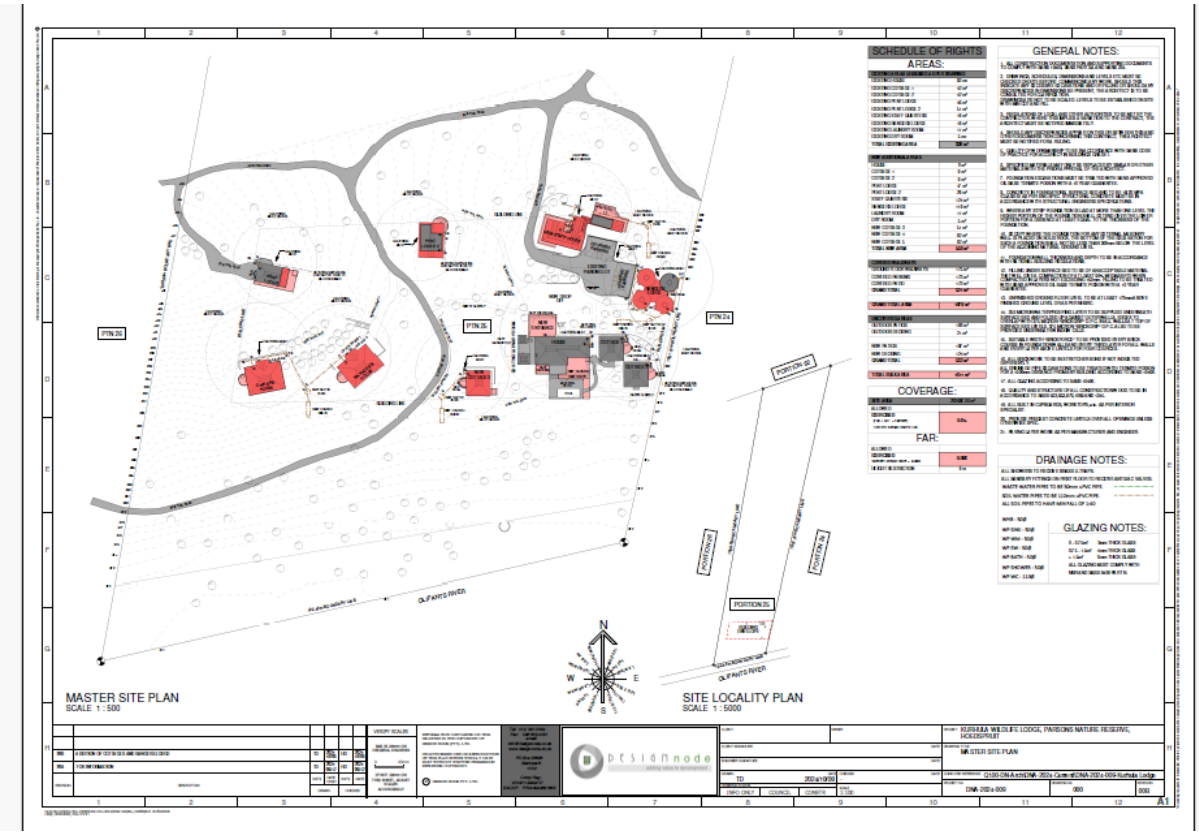

Figure 2-1: Site Development Plan.

3 STUDY AREA

Kurhula Lodge is located in road is located in Hoedspruit on the foot of the Klein Drakensberg, in the Limpopo province of South Africa. The lodge is located with the Parson's Nature Reserve (**Figure 3-1**). The GPS Coordinates are as follows: 24° 09′ 59.24″ S 30° 55′ 35″ E.

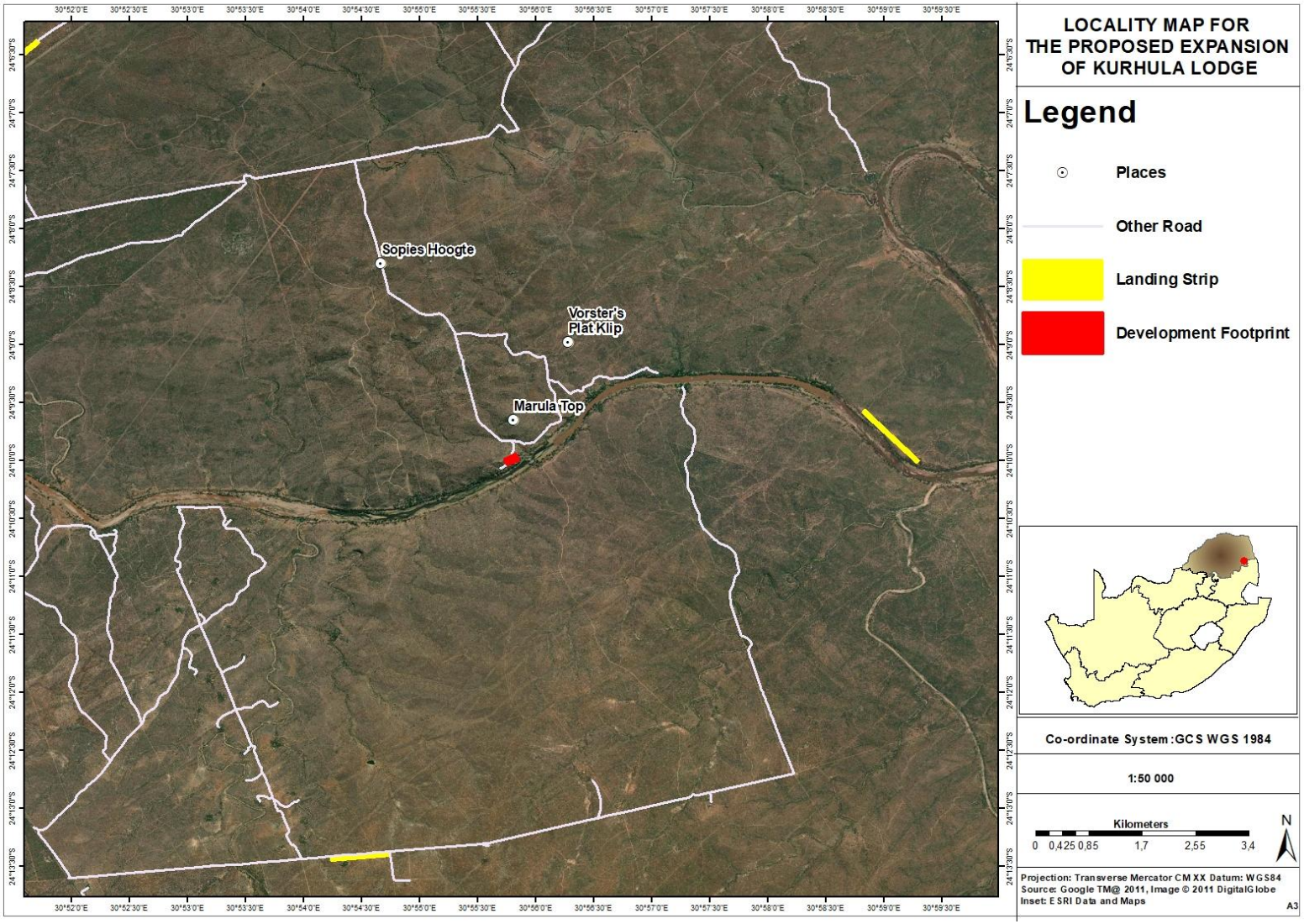

Figure 3-1:Locality Map (Indicated in red).

4 TERMS OF REFERENCE

The principal aim of the assessment was to adequately assess the current state of the terrestrial biodiversity in order to identify any significant and/or sensitive ecological receptors that may be impacted upon by the proposed road upgrade. The following are the terms of reference are applicable to the project:

- Description of the baseline receiving environment specific to the field of expertise (including the general surrounding area as well as the site-specific environment);
- Identification and description of any sensitive receptors in terms of relevant specialist disciplines (i.e., terrestrial biodiversity) that occur in the project area, and the manner in which these sensitive receptors may be affected by the activity;
- Screening to identify any critical issues (potential fatal flaws) that may result in a rejection of the application; and
- Provide a map to identify sensitive receptors in the project area, based on available maps and database information;

4.1 SCOPE OF STUDY

4.1.1 Floral study:

- Conduct fieldwork to locate and identify the current state of vegetation on the study area, with emphasis on the footprint of the lodge expansion.
- Determine the species that are present on each onsite.
- Identify sensitive vegetation types and critical biodiversity areas on each site.
- Identify Critical Biodiversity and Ecological Support Areas on site.
- Determine whether the location of the lodge is located within the distribution range of species listed as Vulnerable, Endangered or Critically Endangered and Protected.
- Provide photographic evidence of the current state of vegetation on each site (i.e. natural or transformed, disturbed etc.) identify and describe the conservation value and conservation planning that are relevant to the site.
- Determine alien species present onsite and the recommended management actions.

- Describe the potential direct, indirect and cumulative negative and positive impacts of the proposed activity on the vegetation species during construction, operation and decommissioning phases of the project.
- Identification of issues and potential direct, indirect and cumulative biodiversity impacts.
- Provide monitoring requirements, mitigation measures and recommendations.

4.1.2 Faunal study:

- Conduct fieldwork to describe and assess the current state of terrestrial fauna in the area.
- Describe the existing micro-habitats, and the species associated with those habitats.
- Provide a description of species composition and conservation status in terms of protected, endangered or vulnerable faunal species.
    - This description will include species which are likely to occur within, traverse across or forage within the proposed project area, as well as species which may not necessarily occur on site, but which are likely to be impacted upon as a result of the proposed development.

5 LEGAL FRAMEWORK

The following national and provincial legislative guidelines and requirements were followed as part of this study:

5.1 THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO 107 OF 1998) (NEMA) AS AMENDED

This Act embraces all three (3) fields of environmental concern namely: resource conservation and exploitation; pollution control and waste management; and land-use planning and development. The environmental management principles include the duty of care for wetlands and special attention is given to management and planning procedures. NEMA provides for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for coordinating environmental functions exercised by organs of state; and to provide for matters connected therewith.

5.2 NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT (ACT NO 10 OF 2004) (NEM: BA)

NEMBA was signed into law in mid-2004 and entered into effect on 1 September 2004. NEM: BA provides for the consolidation of biodiversity legislation through establishing national norms and standards for the management of biodiversity across all sectors and by different management authorities. Certain activities, known as Restricted Activities, are regulated on listed species using permits by a special set of regulations published under the Act. Restricted activities regulated under the act are keeping, moving, having in possession, importing and exporting, and selling.

5.3 THE NATIONAL BIODIVERSITY FRAMEWORK (2017-2022)

The National Biodiversity Framework (NBF) is a requirement under Section 38 of the National Environmental Management: Biodiversity Act (Act 10 of 2004, hereafter referred to as the 'Biodiversity Act'). The NBF is a short to medium-term coordination tool that shows the alignment between the strategic objectives and outcomes identified in the National Biodiversity Strategy and Action Plan (NBSAP v.2, 2015) and other key national strategies, frameworks and systems that currently guide the work of the biodiversity sector and identifies mechanisms through which this work is coordinated. It also identifies a set of interventions or "acceleration measures" that can unlock or fast-track implementation of the NBSAP and indicates the relative roles of the many agencies involved in implementing these activities. The purpose of the NBF is not to provide a comprehensive review of all work currently being undertaken in the biodiversity sector, nor to list all of the actions required to conserve and manage South Africa's biodiversity in support of sustainable development.

5.4 LIMPOPO ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 7 OF 2003)

This Act makes provision with respect to the protection and conservation of the environment in the Limpopo Province. It makes provision for a wide variety of matters regarding the environment including protected areas, hunting of wild and exotic animals, the establishment of Wildlife Councils, inland fishing and the protection and aquatic systems. The Act prioritizes the protection of indigenous plants, the application of CITES,

restrictions on development and environmental impact reports. The Act makes provision for the declaration and protection:

- Site of Ecological Importance;
- Protected Environments and Private Nature Reserves; and
- Mountain catchment area.

5.5 CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT NO 43 OF 1983) (CARA):

This act regulates the utilization and protection of wetlands, soil conservation and all matters relating thereto; control and prevention of veld fires, control of weeds and invader plants, the prevention of water pollution resulting from farming practices and losses in biodiversity.

5.6 THE NATIONAL FOREST ACT (ACT NO 84 OF 1998) (NFA)

The main objective of the National Forests Act, 1998 is to promote the sustainable management and development of forests and to provide protection for certain forests and trees. This said protection is provided through the protection of all natural forests (Section 7 (1), the protection of all trees declared to be protected in terms of section 12(1) of the Act, and the regulation of certain activities in a proclaimed State forest (Section 23(1)(a) – (k)). It should be noted that there are other environmental legislation administered by other State Departments that also regulate natural resources. The Act is responsible for:

- Promotes the sustainable management and development of forests for the benefit of all;
- Creates the conditions necessary to restructure forestry in South Africa;
- Provide special measures for the protection of certain forests and protected trees;
- Promotes the sustainable use of forests for environmental, economic, educational, recreational, cultural, health and spiritual purposes;
- Promotes community forestry; and
- Promotes greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination.

5.7 CONVENTION ON BIOLOGICAL DIVERSITY

The objectives of the CBD are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from commercial and other utilization of genetic resources. The agreement covers all ecosystems, species, and genetic resources.

5.8 CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)

The CITES aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Through its three appendices, the Convention accords varying degrees of protection to more than 30,000 plant and animal species.

5.9 CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

The CMS, or the Bonn Convention aims to conserve terrestrial, marine and avian migratory species throughout their range. Parties to the CMS work together to conserve migratory species and their habitats by providing strict protection for the most endangered migratory species, by concluding regional multilateral agreements for the conservation and management of specific species or categories of species, and by undertaking co-operative research and conservation activities.

5.10 THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

The objectives of the Treaty are the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security. The Treaty covers all plant genetic resources for food and agriculture, while it’s Multilateral System of Access and Benefit-sharing covers a specific list of 64 crops and forages. The Treaty also includes provisions on Farmers' Rights.

5.11 CONVENTION ON WETLANDS (POPULARLY KNOWN AS THE RAMSAR CONVENTION)

The Ramsar Convention provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The convention covers all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities.

5.12 WORLD HERITAGE CONVENTION (WHC)

The primary mission of the WHC is to identify and conserve the world's cultural and natural heritage, by drawing up a list of sites whose outstanding values should be preserved for all humanity and to ensure their protection through a closer co-operation among nations.

5.13 RAMSAR CONVENTION

The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Ramsar Convention is the only global environmental treaty that deals with a particular ecosystem. The treaty was adopted in the Iranian city of Ramsar in 1971 and the Convention's member countries cover all geographic regions of the planet.

5.14 INTERNATIONAL PLANT PROTECTION CONVENTION (IPPC)

The IPPC aims to protect world plant resources, including cultivated and wild plants by preventing the introduction and spread of plant pests and promoting the appropriate measures for their control. The convention provides the mechanisms to develop the International Standards for Phytosanitary Measures (ISPMs), and to help countries to implement the ISPMs and the other obligations under the IPPC, by facilitating the national capacity development, national reporting and dispute settlement. The Secretariat of the IPPC is hosted by the Food and Agriculture Organization of the United Nations (FAO).

6 REPORT LEGISLATIVE FRAMEWORK

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial biodiversity, as per Government Notice 320 published in terms of NEMA, dated 20 March 2020. "Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Act, 1998, when applying for Environmental Authorisation"-section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of the protocol, on a site identified on the screening tool as being of 'Very High sensitivity for terrestrial biodiversity, must submit a Terrestrial Biodiversity Specialist Assessment; however
- Where the information gathered from the site sensitivity verification differs from the designation of Very High terrestrial biodiversity sensitivity on the screening tool and it is found to be of a Low sensitivity, then a Terrestrial Biodiversity Compliance Statement must be submitted.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a field survey, confirmed that the site the site (R30-S8 Road servitude) is mostly of a 'Low' sensitivity. Therefore, a Terrestrial Biodiversity Compliance Statement will be completed and submitted for this project.

As per sections 2 and 3 of the protocol discussed above, a Terrestrial Biodiversity Compliance Statement must contain the information as presented in **Table *6-1*** below.

Table 6-1: Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.

Information to be Included (as per GN 320, 20 March 2020)	**Report Section**
Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	8
Description of the assumptions and any uncertainties or gaps in knowledge or data	8.3
A baseline profile description of biodiversity and ecosystems of the site	7 and11

Information to be Included (as per GN 320, 20 March 2020)	**Report Section**
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	7.1
A statement on the duration, date and season of the site inspection	9
Site sensitivity verification: Onsite inspection, include a description of current land use and vegetation found on-site	10
Site sensitivity verification: Photographs/evidence of environmental sensitivity	10
Screening tool confirmation/dispute: The assessment must verify the "low" sensitivity of the site, in terms of plant, animal and terrestrial biodiversity themes	9
Indicate whether or not the proposed development will have any impact on the terrestrial environment, animals and/or plants	12
A signed statement of independence by the specialist	6
Specialist details, including a CV	

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

7 SITE CHARACTERISTICS

7.1 GEOLOGY & SOILS

From north to south, the Swazian Goudplaats Gneiss, Makhutswi Gneiss and Nelspruit Suite (granite gneiss and migmatite), and further south still, the younger Mpuluzi Granite (Randian) form the major basement geology of the area. Archaean granite and gneiss weather into sandy soils in the uplands and clayey soils with high sodium content in the lowlands.

7.2 CLIMATE

The study site experiences summer rainfall with dry winters. The Mean Annual Precipitation (MAP) ranges from about 450 mm on the eastern flats to about 900 mm near the escarpment in the west. In a north-south direction, MAP of the unit appears to peak in Swaziland. The study is located in a frost-free region. The mean monthly maximum and minimum temperatures for Skukuza 39.5°C and –0.1°C for January and June, respectively. Corresponding values for Hoedspruit 38.0°C and 3.7°C for January and July, respectively. See also climate diagram for SVl 3 Granite Lowveld (**Figure 7-1**).

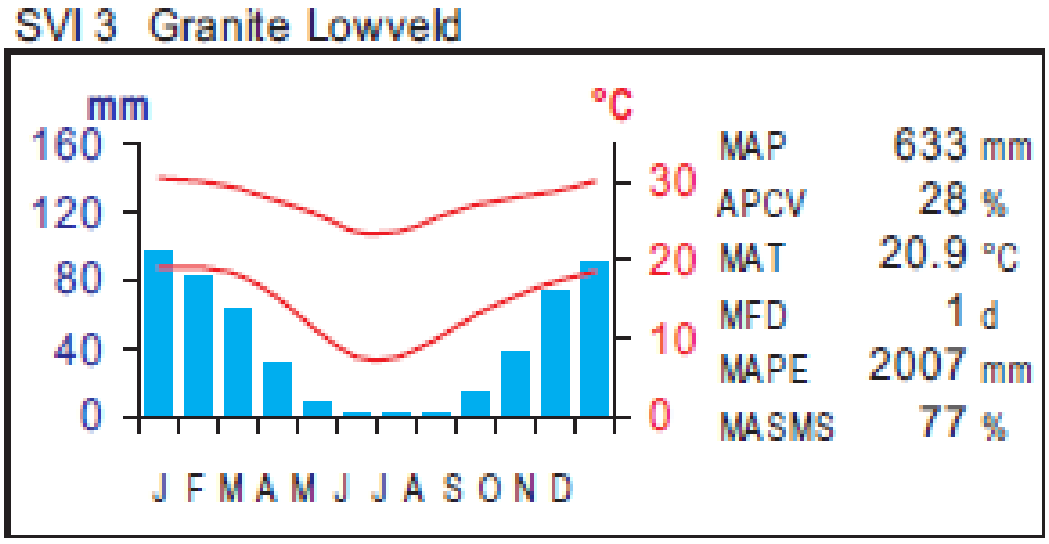

Figure 7-1: climate diagram for Gh 12 Vaal-Vet Sandy Grassland

7.3 VEGETATION TYPE: GRANITE LOWVELD (SVL 3)

The proposed development is located within the Granite Lowveld **(**SVl 3) vegetation type (**Figure 7-2**). This vegetation unit consists of tall shrubland with few trees to moderately dense low woodland on the deep sandy uplands with *Terminalia sericea*, *Combretum zeyheri* and *C. apiculatum* and ground layer including *Pogonarthria squarrosa*, *Tricholaena monachne* and *Eragrostis rigidior*. Dense thicket to open savanna in the bottomlands with *Acacia nigrescens*, *Dichrostachys cinerea*, *Grewia bicolor* in the woody layer. The dense herbaceous layer contains the dominant *Digitaria eriantha*, *Panicum maximum* and *Aristida congesta* on fine-textured soils, while brackish bottomlands support *Sporobolus nitens*, *Urochloa mosambicensis* and *Chloris virgata*. At seep lines, where convex topography changes to concave, a dense fringe of *Terminalia sericea* occurs, with *Eragrostis gummiflua* in the undergrowth.

This vegetation type is distributed in the Limpopo and Mpumalanga Provinces, Swaziland and marginally also KwaZulu-Natal: A north-south belt on the plains east of the escarpment from Thohoyandou in the north, interrupted in the Bolobedu area, continued in the Bitavi area, with an eastward extension on the plains around the Murchison Range and southwards to Abel Erasmus Pass, Mica and Hoedspruit areas to the area east of Bushbuckridge. Substantial parts are found in the Kruger National Park spanning areas east of Orpen Camp southwards through Skukuza and Mkuhlu, including undulating terrain west of Skukuza to the basin of the Mbyamiti River. It continues further southward to the Hectorspruit area with a narrow westward extension up the Crocodile River Valley past Malelane, Kaapmuiden and the Kaap River Valley, entering Swaziland between Jeppe's Reef in the west and the Komati River in the east, through to the area between Manzini and Siphofaneni, including the Grand Valley, narrowing irregularly and marginally entering KwaZulu-Natal near Pongola. Altitude 250–700 m.

The taxa associated with the dominant vegetation units are summarized on **Table 7-1 below**.

Table 7-1: Important Taxa within the Vaal-Vet Sandy Grassland (Mucina and Rutherford 2006).

PLANT FORM	SPECIES
Tall Trees	*Acacia nigrescens (d), Sclerocarya birrea subsp. caffra (d).*

PLANT FORM	SPECIES
Small Trees	*Acacia nilotica (d), Albizia harveyi (d), Combretum apiculatum (d), C. imberbe (d), C. zeyheri (d), Ficus stuhlmannii (d), Peltophorum africanum (d), Pterocarpus rotundifolius (d), Terminalia sericea (d), Acacia exuvialis, A. gerrardii, Bolusanthus speciosus, Cassia abbreviata subsp. beareana, Combretum collinum subsp. suluense, Dalbergia melanoxylon, Gymnosporia glaucophylla, Lannea schweinfurthii var. stuhlmannii, Pavetta schumanniana, Plectroniella armata, Terminalia prunioides.*
Tall Shrubs	*Combretum hereroense (d), Dichrostachys cinerea (d), Euclea divinorum (d), Strychnos madagascariensis (d), Gardenia volkensii, Hibiscus micranthus, Tephrosia polystachya.*
Low Shrubs	*Abutilon austro-africanum, Agathisanthemum bojeri, Aptosimum lineare, Barleria elegans, Clerodendrum ternatum, Commiphora africana, Gossypium herbaceum subsp. africanum, Pavonia burchellii.*
Woody Climber	*Sphedamnocarpus pruriens subsp. pruriens.*
Herbaceous Climber	*Rhynchosia totta.*
Graminoids	*Brachiaria nigropedata (d), Digitaria eriantha subsp. eriantha (d), Eragrostis rigidior (d), Melinis repens (d), Panicum maximum (d), Pogonarthria squarrosa (d), Aristida congesta, Bulbostylis hispidula, Chloris mossambicensis, Enneapogon cenchroides, Heteropogon contortus, Leptochloa eleusine, Perotis patens, Schmidtia pappophoroides, Sehima galpinii, Tricholaena monachne, Urochloa mosambicensis.*
Herbs	*Achyranthes aspera, Aspilia mossambicensis, Becium filamentosum, Chamaecrista absus, Commelina benghalensis, C. erecta, Cucumis africanus, Evolvulus alsinoides, Heliotropium strigosum, Hermbstaedtia odorata, Hibiscus praeteritus, Indigofera filipes, I. sanguinea, Kohautia virgata, Kyphocarpa angustifolia, Leucas glabrata, Ocimum gratissimum, Phyllanthus maderaspatensis, Pupalia lappacea, Vahlia capensis subsp. vulgaris, Waltheria indica.*
Succulent Herbs	*Orbea rogersii, Stapelia leendertziae*

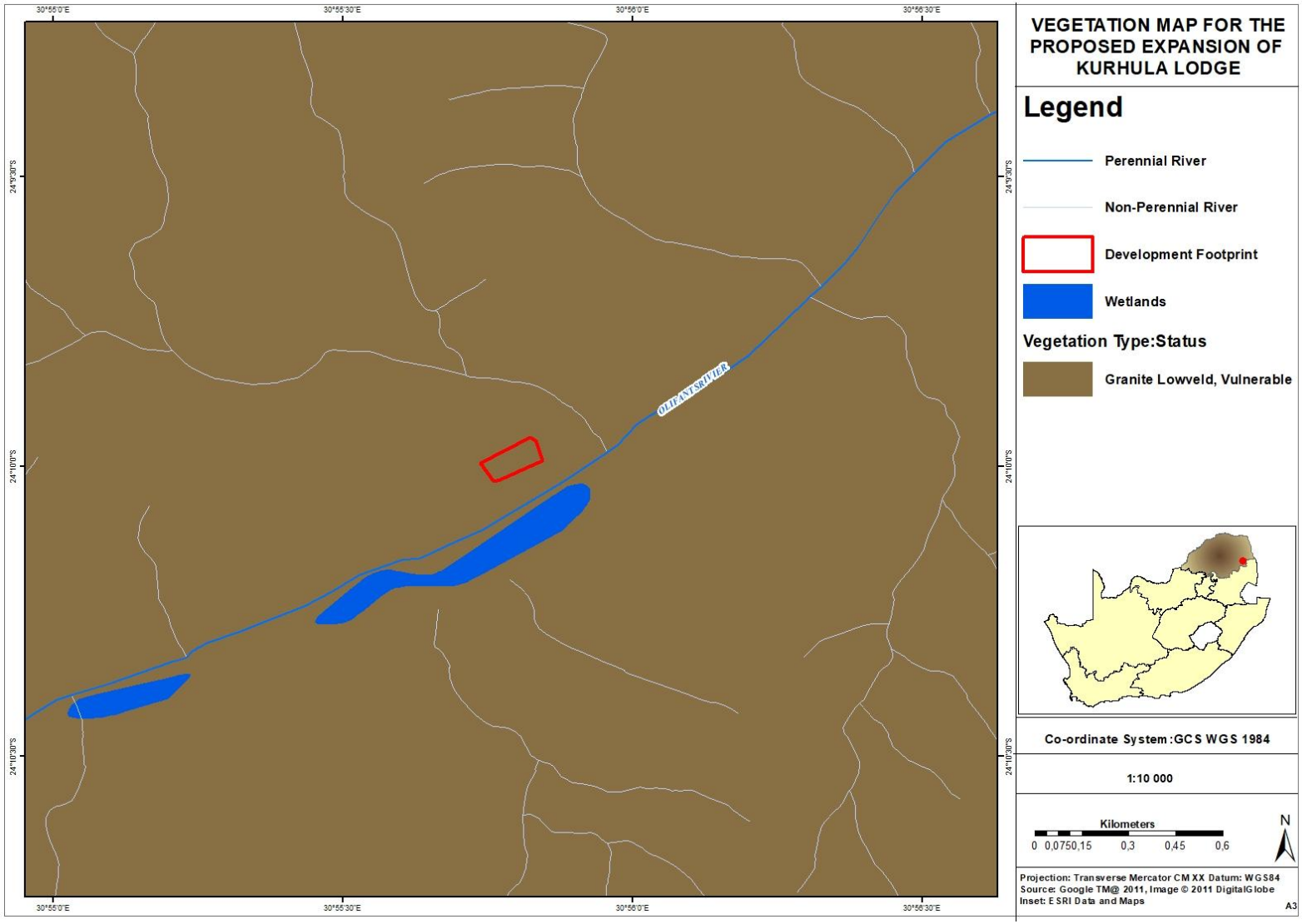

Figure 7-2: Vegetation Map-Road R30 Section 8

7.4 Gh 10 Vaal-Vet Sandy Grassland's Conservation Status

The SVl 3 Granite Lowveld vegetation unit is classified as Vulnerable. A conservation target of 19% has been set, Some 17% statutorily conserved in the Kruger National Park. About the same amount conserved in private reserves mainly the Selati, Klaserie, Timbavati, Mala Mala, Sabi Sand and Manyeleti Reserves. More than 20% already transformed, mainly by cultivation and by settlement development. Erosion is very low to moderate.

7.5 2018 LIMPOPO PROVINCE MAP OF CRITICAL BIODIVERSITY AREAS AND ECOLOGICAL SUPPORT AREAS.

According to the 2018 Limpopo Province Map of Critical Biodiversity Areas, the entire lodge is located within a Critical Biodiversity Area. Critical Biodiversity Areas (CBAs) are terrestrial and aquatic areas identified as vital for maintaining biodiversity and ecosystem function, requiring a natural or near-natural state to ensure species and ecosystem persistence.

Refer to Figure 7-3 below for the Sensitivity map.

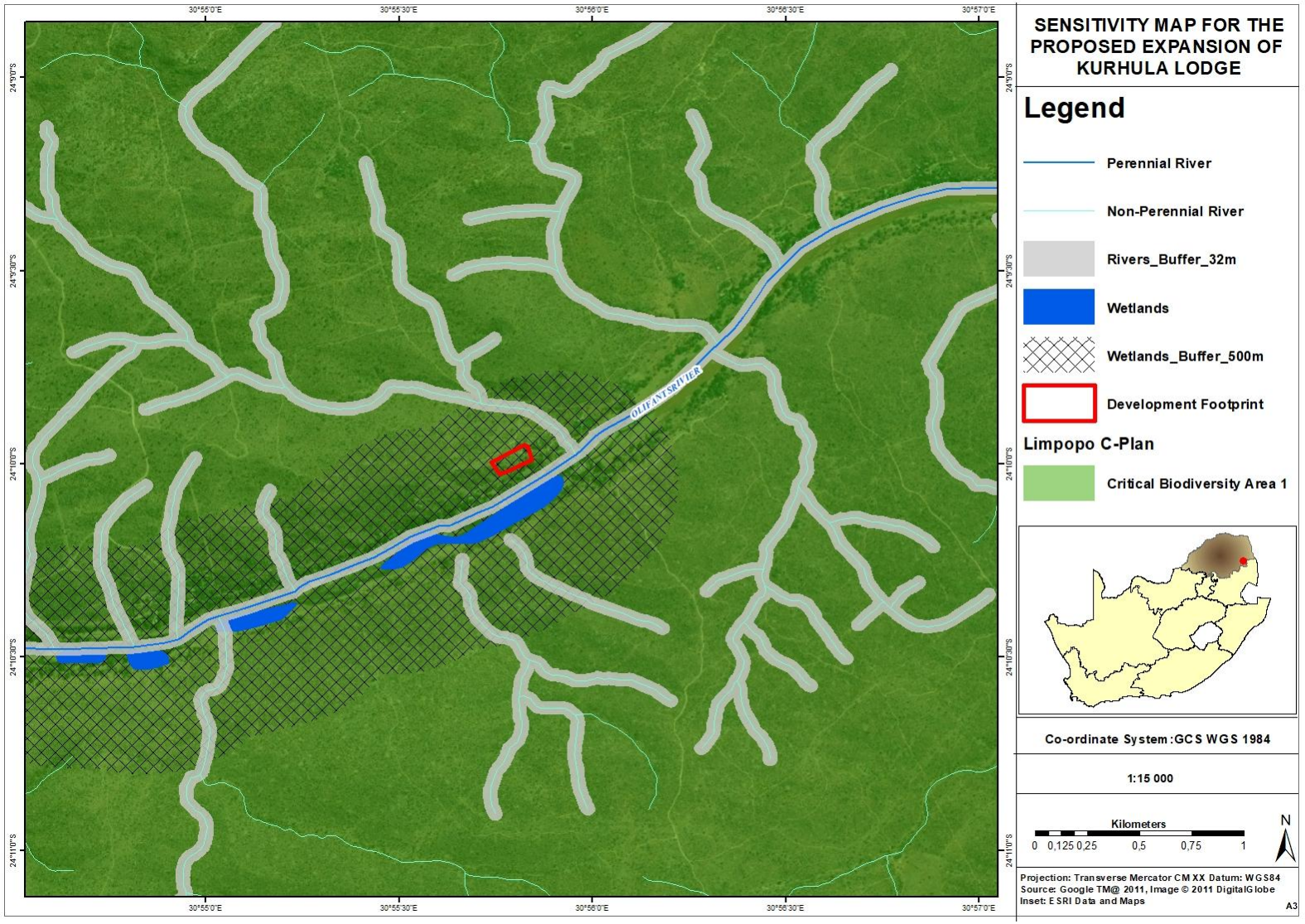

Figure 7-3: Sensitivity Map.

8 METHODOLOGY

The site inspection was done on the **15 March 2025**. The site visit entailed walking the entire development footprint while investigating both fauna and flora. The aim of the fieldwork component was to scan the study site to gain insight into the current faunal and floral assemblages, to detect any special species that might be present on site.

8.1 DESKTOP ASSESSMENT

The desktop assessment was principally undertaken using a Geographic Information System (GIS) to access the latest available spatial datasets to develop digital cartographs and species lists. These datasets and their date of publishing are provided below.

The potential impacts of the proposed expansion, existing operations and the alternatives were rated using a clearly defined rating scale. The significance rating formula is as follows:

8.1.1 Ecologically Important Landscape Features

- Existing ecologically relevant data layers were incorporated into a GIS to establish how the proposed development might interact with any ecologically important entities. Emphasis was placed around the following spatial datasets:
    - Ecosystem Threat Status – indicator of an ecosystem's wellbeing, based on the level of change in structure, function or composition. Ecosystem types are categorised as Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) or Least Concern (LC), based on the proportion of the original extent of each ecosystem type that remains in good ecological condition.
    - Ecosystem Protection Level – indicator of the extent to which ecosystems are protected or under-protected. Ecosystem types are categorised as Well Protected (WP), Moderately Protected (MP), Poorly Protected (PP), or Not Protected (NP), based on the proportion of the biodiversity target for each ecosystem type that is included within one or more protected areas. Not Protected, Poorly Protected or Moderately Protected ecosystem types are collectively referred to as under-protected ecosystems.
- The Limpopo Biodiversity Sector Plan classified areas within the province based on their contribution to reaching the conservation targets within the province. These areas are classified as Critical Biodiversity Areas (CBAs) and Ecological

Support Areas (ESAs) to ensure sustainability in the long term. The CBAs are classified as either 'Irreplaceable' (must be conserved), or 'Important'.

- Important Bird and Biodiversity Areas (BirdLife South Africa, 2015) – Important Bird and Biodiversity Areas (IBAs) constitute a global network of over 13 500 sites, of which 112 sites are found in South Africa. IBAs are sites of global significance for bird conservation, identified through multi-stakeholder processes using globally standardised, quantitative, and scientifically agreed criteria;

8.1.2 Desktop Plant Species Assessment

The Vegetation of South Africa, Lesotho, and Swaziland (Mucina & Rutherford, 2006) was used in order to identify the vegetation type that would have occurred under natural or preanthropogenically altered conditions. Furthermore, the Plants of Southern Africa (POSA) database was accessed to compile a list of expected flora species within the proposed development area and surrounding landscape. The Red List of South African Plants (Raimondo et al., 2009; SANBI, 2020) was utilized to provide the most current national conservation status of flora species.

8.1.3 Desktop Animal Species Assessment

8.1.4 Mammals

- A list of mammal species that are known to occur in the region was compiled based on the historic distribution ranges presented in Stuart and Stuart (2007); and
- These data were cross-referenced with mammal species listed for the 2430BB Quarter Degree Square (QDS) on the MammalMAP database (Fitzpatrick Institute of African Ornithology, 2023).

8.1.5 Birds

- A list of bird species that are known to occur in the region was compiled based on the historic distribution ranges presented in Stuart and Stuart (2007); and

8.1.6 Herpetofauna (Reptiles and Amphibians)

Sampling for reptiles and amphibians was based on opportunistic observations made while driving/working in the study area were recorded.

8.2 BOTANICAL ASSESSMENT

The botanical assessment encompassed an assessment of all the vegetation units and habitat types within the project area. The focus was on an ecological assessment of habitat types as well as identification of any Red Data species within the known distribution of the project area. The South African National Biodiversity Institute (SANBI) provides an electronic database system, namely the Botanical Database of Southern Africa (BODATSA), to access distribution records on southern African plants. T

8.3 STUDY LIMITATIONS

- The site inspections were over a single day, during the wet season, and thus it is possible that some of the plant species may have missed due to time and budgetary constraints.
- It is assumed that plant species flowering only during specific times of the year could be confused with a very similar species of the same genus.
- Some plant species that emerge and bloom during another time of the year or under very specific circumstances may have been missed entirely.
- Data collection in this study relied heavily on data from representative, homogenous sections of vegetation units, as well as general observations, analysis of satellite imagery from the past until the present, generic data and a desktop analysis.
- No faunal trapping was conducted as part of this study. The faunal assessment relied heavily on desktop and literature studies, supported by on-site observations.
- The specialist responsible for this study reserves the right to amend this report, recommendations and/or conclusions at any stage should any additional or otherwise significant information come to light.

9 HABITAT SURVEY AND SITE ECOLOGICAL IMPORTANCE

The main habitat types identified across the project area were initially identified and pre delineated largely based on aerial imagery from 1985. These habitat types were then refined based on the field coverage and data collected during the survey. 3 habitat units are delineated for the project area:

- Disturbed shrubland,
- Undisturbed Shrubland, and
- the Riverine Habitat.

Disturbed shrubland is associated with the existing developments including access roads, in some cases the presence of elephants onsite has also shaped this habitat. The undisturbed shrubland can be observed in the areas outside of the developed areas. The riverine habitat is associated with the river onsite, it covers the vegetation that can be seen along the riverbanks.

The for delineated habitat types have each been allocated a sensitivity category, or SEI, and this breakdown is presented in **Table 9-1** below. In order to identify and spatially present sensitive features in terms of the relevant specialist discipline, the sensitivities of each of the habitat types delineated within the project area are mapped in **Figure 9-1**.

It is important to note that this map does not replace any local, provincial, or national government legislation relating to these areas or the land use capabilities or sensitivities of these environments.

Table 9-1: Site Ecological Importance assessment summary of the habitat types delineated within the project area.

Habitat	Conservation Importance	Functional Integrity	Biodiversity Importance	Receptor Resilience	Site Ecological Importance
Disturbed shrubland	Medium	Medium	Medium	Low	Medium
Undisturbed Shrubland	High	High	High	Medium	High
Riverine Habitat.	High	High	High	Low	High

Consider the following guidelines when interpreting SEI in the context of any proposed development or disturbance activities:

- Very Low: Minimisation mitigation - Development activities of medium to high impact acceptable and restoration activities may not be required.
- Low: Minimisation and restoration mitigation - Development activities of medium to high impact acceptable followed by appropriate restoration activities.
- Medium: Minimisation and restoration mitigation - Development activities of medium impact acceptable followed by appropriate restoration activities.

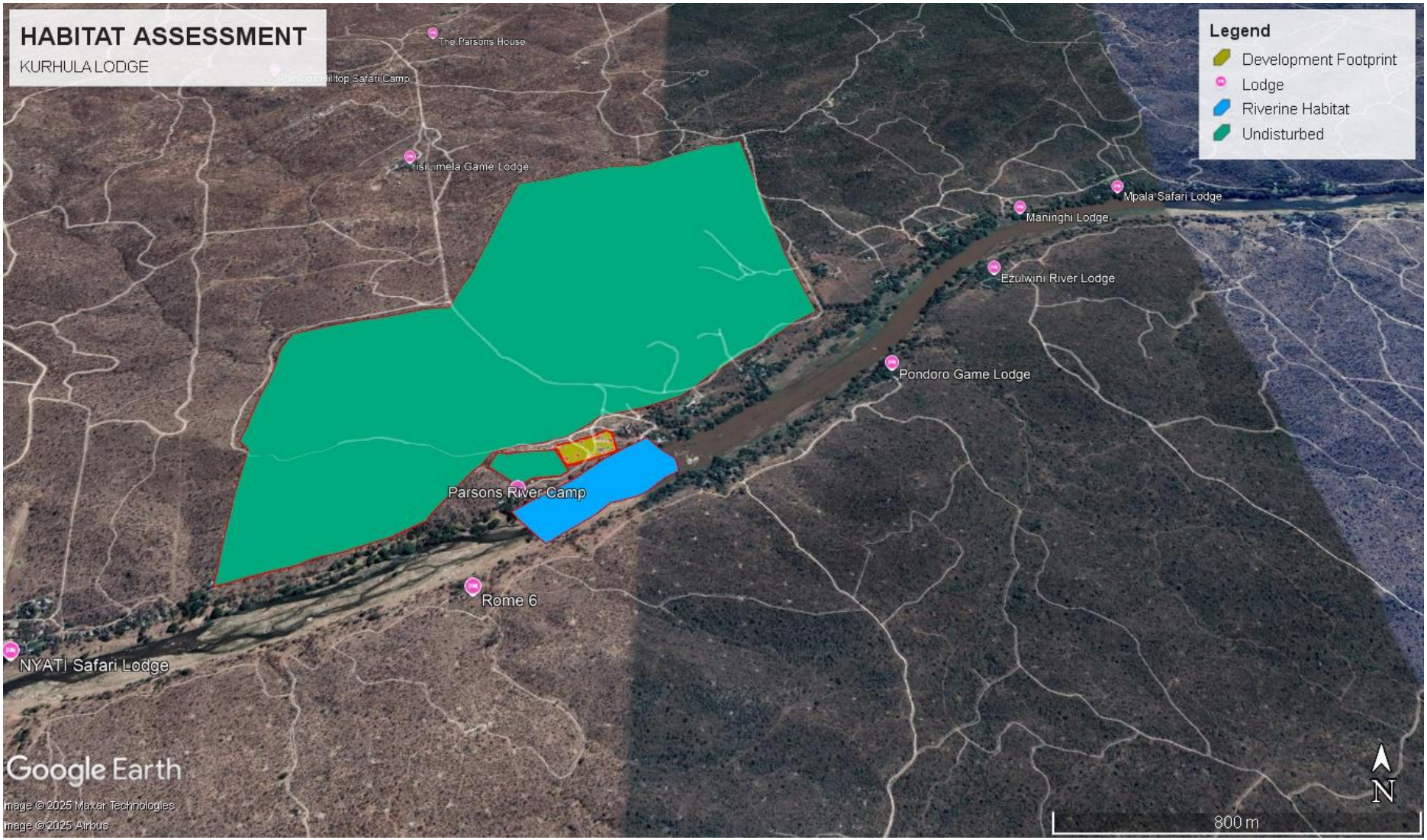

Figure 9-1: Biodiversity SEI delineation relevant to the Kurhula Lodge.

10 RESULTS OF THE FLORA ASSESSMENT

The study site consists of the tall shrubland with few trees to moderately dense low woodland on the deep sandy uplands with *Terminalia sericea*, *Combretum zeyheri* and *C. apiculatum* and ground layer including *Pogonarthria squarrosa*, *Tricholaena monachne* and *Eragrostis rigidior* (**Figure 10-1**)

Figure 10-1:Overview of the site evidence of Terminalia sericea, Combretum zeyheri and C. apiculatum species.

The site consists of open savanna with *Acacia nigrescens*, *Dichrostachys cinerea*, Grewia bicolor in the woody layer (**Figure 10-2**). The area earmarked for the development has been disturbed by the existing development, and in some cases the elephants on the site. The disturbed includes vegetation clearance , trees have been knocked down and ring barking of trees.

Figure 10-2:Small shrubs evidence of trees that have been pushdown by elephants.

Figure 10-3: Evidence of the existing disturbance onsite.

10.1 FLORA SPECIES OF SPECIAL CONCERN

South Africa has become the first country to fully assess the status of its entire flora (Domitilla and Raimondo, 2011). Major threats to the South African flora are identified in terms of the number of plant taxa Red-Listed as threatened with extinction as a result of threats like, habitat loss (e.g. infrastructure development, urban expansion, crop cultivation and mines), invasive alien plant infestation (e.g. outcompeting indigenous plant species), habitat degradation (e.g. overgrazing, inappropriate fire management etc.), unsustainable harvesting, demographic factors, pollution, loss of pollinators or dispersers, climate change and natural disasters (e.g. such as droughts and floods)[1]. South Africa uses the internationally endorsed IUCN Red List Categories and Criteria in the Red List of South African plants. However, due to its strong focus on determining risk of extinction, the IUCN system does not highlight species that are at low risk of extinction but may nonetheless be of high conservation importance. As a result, a SANBI uses an amended system of categories in order to highlight species that may be of low risk of extinction but are still of conservation concern (SANBI, 2015).

During the field investigation a few floral SCCs were observed within the study site:

Figure 10-4:Sclerocarrya birrea observed onsite.

[1] RAIMONDO, Domitilla. The Red List of South African plants: a global first. S. Afr. j. sci., Pretoria , v. 107, n. 3-4, p. 01-02, Apr. 2011 . on 17 Aug. 2021. http://dx.doi.org/10.4102/sajs.v107i3/4.653.

Figure 10-5: Diospyros mespiliformus observed onsite.

Figure 10-6: Combretum imberbe observed onsite.

It is important to note that these protected trees (ssc) are located outside of the development footprint.

10.1.1 Ethnobotanical plant species

Ethnobotany/ Ethnoecology is a branch of botany that focuses on the use of plants for medicines, cultural and recreational purposes. The overexploitation of indigenous plants for ethnobotanical purposes can be detrimental to populations of those particular plant species, and the other species that depend on its existence for their survival.

South Africa has a rich diversity of medicinal plants that not only have a global significance, but also have a cultural and historical role (van Wyk *et al.* 2009). There is a rapidly growing concern for conservation of medicinal plants that are dwindling in number due to illegal harvesting (Institute of Natural Resources 2003). This is particularly apparent in rural areas where medicinal plants are overexploited by traditional doctors.

The species described have a lot of ethnobotanical (Figure 10-4, Figure 10-5 and Figure 10-6).

10.2 ALIEN INVASIVE SPECIES PRESENT ON SITE

An ‘‘invasive species’’ is any species whose establishment and spread outside of its natural distribution range (i) threatens ecosystems, habitats or other species or has a demonstrable potential to threaten ecosystems, habitats or other species; and (ii) may result in economic or environmental harm or harm to human health. Invasive alien plant species are globally considered as one of the greatest threats to the environment, biodiversity, ecosystem integrity and the economy.

According to the Conservation of Agricultural Resources Act (No. 43 of 1983 - Regulation 15, 30 March 2001) (CARA), for agricultural land, and the National Environmental Management: Biodiversity Act (No. 10 of 2004) (NEMBA), for natural areas, invasive alien plant species should be controlled and eradicated with an emphasis on urgent action in biodiversity priority areas. NEMBA published a list of Alien and Invasive Species (No 599) in 2014 which regulates the management of alien and invasive plants in natural environments. **The site does not have any invasive species.**

11 RESULTS OF THE FAUNA ASSESSMENT

11.1 MAMMALS

According to the desktop study conducted, the species listed in **Table 11-1** were identified as being possible to occur within the study area or the immediate vicinity of the proposed construction area. It must be noted that some of these species are very sensitive to habitat and in some instances; the likeliness for them to occur is minimal. There are six (6) sensitive mammal species that have a HIGH chance of occurring in the study area.

Table 11-1: Sensitive mammals that are likely to occur onsite

CITES Appendix	Common Name	Scientific Name
Appendix 1	Black-footed cat	*Felis nigripes*
	Leopard	*Panthera pardus*
	Cheetah	*Acinonyx jubatus*
	Black rhinoceros	*Diceros bicornis*
Appendix 2	African elephant	*Loxodonta africana*
	Chacma baboon	*Papio ursinus*
	Vervet monkey	*Cercopithecus aethiops*
	Samango monkey	*Cercopithecus mitis*
	Greater galago	*Otolemur crassicaudatus*
	South African galago	*Galago moholi*
	Spotted-necked otter	*Lutra maculicollis*
	African clawless otter	*Aonyx capensis*
	Caracal	*Caracal caracal*
	Serval	*Leptailurus serval*
	African wild cat	*Felis sylvestris*
	Lion	*Panthera leo*
	Hippopotamus	*Hippopothamus amphibious*
	White rhinoceros	*Ceratotherium simum*
	Pangolin	*Manis temminckii*
Critically Endangered	Black rhinoceros	*Diceros bicornis*
	Juliana's golden mole	*Neamblysomus julianae*
Endangered	African wild dog	*lycaon pictus*

Vulnerable	African elephant Gunning's golden mole Cheetah Lion Black-footed ca	*Loxodonta africana* *Neamblysomus gunningi* *Acinonyx jubatis* *Panthera leo* *Felis nigripes*
Near Threatened	White rhinoceros	*Ceratotherium simum*

11.1.1 Field Investigation Findings

None of the sensitive mammals which were expected were spotted on site, except for a few ungulates and the dropping of elephants. The owner of the property indicated that the site has hippos as well.

Figure 11-1:Mammals and evidence of mammals observed onsite.

Figure 11-2: Example of the Hippopotamus amphibious found onsite.

11.2 REPTILES

Reptile lists require intensive surveys conducted for several years. Reptiles are extremely secretive and difficult to observe even during intensive field surveys conducted over several seasons. The majority reptile species are sensitive to severe habitat alteration and fragmentation. Large areas surrounding the site have resulted in increased habitat modification and transformation as well as increased human presence and associated disturbances (illegal reptile collecting, indiscriminate killing of all snake species, fires) surrounding the site coupled with increased habitat destruction and disturbances on the neighbouring properties are all causal factors in the alteration and disappearance of reptile diversity in the area. A list of the reptile species that can be expected onsite is listed below.

Table 11-2: ReptileMAP — Reptile Atlas of Africa Summary information for locus 2430BB

#	Family	Scientific name	Common name	Red list category
1	Agamidae	Acanthocercus atricollis	Southern Tree Agama	Least Concern (SARCA 2014)
2	Agamidae	Agama aculeata distanti	Distant's Ground Agama	Least Concern (SARCA 2014)
3	Agamidae	Agama atra	Southern Rock Agama	Least Concern (SARCA 2014)

#	Family	Scientific name	Common name	Red list category
4	Chamaeleonidae	Bradypodion transvaalense	Wolkberg Dwarf Chameleon	Least Concern (SARCA 2014)
5	Chamaeleonidae	Chamaeleo dilepis	Common Flap-neck Chameleon	Least Concern (SARCA 2014)
6	Colubridae	Philothamnus semivariegatus	Spotted Bush Snake	Least Concern (IUCN 2021)
7	Colubridae	Telescopus semiannulatus semiannulatus	Eastern Tiger Snake	Least Concern (SARCA 2014)
8	Cordylidae	Platysaurus orientalis fitzsimonsi	FitzSimons' Flat Lizard	Near Threatened (SARCA 2014)
9	Cordylidae	Platysaurus orientalis orientalis	Sekhukhune Flat Lizard	Least Concern (SARCA 2014)
10	Cordylidae	Smaug vandami	Van Dam's Girdled Lizard	Least Concern (SARCA 2014)
11	Elapidae	Dendroaspis polylepis	Black Mamba	Least Concern (SARCA 2014)
12	Elapidae	Naja mossambica	Mozambique Spitting Cobra	Least Concern (SARCA 2014)
13	Gekkonidae	Afroedura leoloensis	Sekhukhuneland Flat Gecko	Least Concern (IUCN 2018)
14	Gekkonidae	Chondrodactylus turneri	Turner's Gecko	Least Concern (SARCA 2014)
15	Gekkonidae	Lygodactylus capensis	Common Dwarf Gecko	Least Concern (SARCA 2014)
16	Gekkonidae	Pachydactylus vansoni	Van Son's Gecko	Least Concern (SARCA 2014)
17	Gerrhosauridae	Gerrhosaurus flavigularis	Yellow-throated Plated Lizard	Least Concern (SARCA 2014)
18	Gerrhosauridae	Matobosaurus validus	Common Giant Plated Lizard	Least Concern (SARCA 2014)
19	Lacertidae	Heliobolus lugubris	Bushveld Lizard	Least Concern (SARCA 2014)
20	Lacertidae	Meroles squamulosus	Common Rough-scaled Lizard	Least Concern (SARCA 2014)

#	Family	Scientific name	Common name	Red list category
21	Lacertidae	Nucras holubi	Holub's Sandveld Lizard	Least Concern (SARCA 2014)
22	Lacertidae	Nucras ornata	Ornate Sandveld Lizard	Least Concern (SARCA 2014)
23	Lamprophiidae	Atractaspis bibronii	Bibron's Stiletto Snake	Least Concern (SARCA 2014)
24	Lamprophiidae	Boaedon capensis	Brown House Snake	Least Concern (SARCA 2014)
25	Lamprophiidae	Gracililima nyassae	Black File Snake	Least Concern (SARCA 2014)
26	Lamprophiidae	Psammophis brevirostris	Short-snouted Grass Snake	Least Concern (SARCA 2014)
27	Lamprophiidae	Psammophis subtaeniatus	Western Yellow-bellied Sand Snake	Least Concern (SARCA 2014)
28	Lamprophiidae	Psammophylax rhombeatus	Spotted Grass Snake	Least Concern (SARCA 2014)
29	Lamprophiidae	Psammophylax tritaeniatus	Striped Grass Snake	Least Concern (SARCA 2014)
30	Pythonidae	Python natalensis	Southern African Python	Least Concern (SARCA 2014)
31	Scincidae	Panaspis maculicollis	Spotted-neck Snake-eyed Skink	Least Concern (IUCN 2021)
32	Scincidae	Panaspis wahlbergii	Wahlberg's Snake-eyed Skink	Least Concern (IUCN 2021)
33	Scincidae	Trachylepis capensis	Cape Skink	Least Concern (SARCA 2014)
34	Scincidae	Trachylepis margaritifera	Rainbow Skink	Least Concern (SARCA 2014)
35	Scincidae	Trachylepis varia sensu lato	Common Variable Skink Complex	Least Concern (SARCA 2014)
36	Testudinidae	Kinixys lobatsiana	Lobatse Hinged Tortoise	Least Concern (SARCA 2014)
37	Testudinidae	Stigmochelys pardalis	Leopard Tortoise	Least Concern (SARCA 2014)
38	Typhlopidae	Afrotyphlops bibronii	Bibron's Blind Snake	Least Concern (IUCN 2022)

#	Family	Scientific name	Common name	Red list category
39	Typhlopidae	Rhinotyphlops lalandei	Delalande's Beaked Blind Snake	Least Concern (SARCA 2014)
40	Viperidae	Bitis arietans arietans	Puff Adder	Least Concern (IUCN 2014)
41	Viperidae	Causus defilippii	Snouted Night Adder	Least Concern (IUCN 2021)

11.2.1 Field investigation findings

None of the expected reptiles were observed on site during the site visit. However the owner of the site indicated that the river has crocodiles

Figure 11-3:Example of the Crocodylus niloticus.

11.3 AVIFAUNA

Birds are generally regarded as good ecological indicators, because their presence or absence tends to represent conditions pertaining to the proper functioning of an ecosystem. Bird communities and ecological conditions are directly linked to land cover. As the land cover of an area changes, so do the types of birds in that area (The Bird Community Index, 2007). Land cover is directly linked to habitats within the study area. The diversity of these habitats should give rise to many different species.

According to the South African Bird Atlas Project (SABAP2), almost 399 species of birds have been identified in the Klerksdorp area; 14 of the species are classified as threatened, while 5 species are classified as introduced. All birds that could be present within the vicinity of the study area are listed in **Appendix B**.

11.3.1 Field investigation findings

A few avifaunal species were spotted onsite during the site visit, most notably Cape Vulters and the **African Goshawk**

Figure 11-4: Nests observed onsite.

Figure 11-5: African Goshawk observed onsite.

11.4 INVERTEBRATES

Butterflies are a good indication of the habitats available in a specific region (Woodhall 2005). Although many species are eurytropes (able to use a wide range of habitats) and are widespread and common, South Africa has many stenotrope or endemic species (specific habitat requirements with populations concentrated in a small area) which may be very specialised (Woodhall 2005). Butterflies are useful indicators as they are relatively easy to locate and catch, and therefore identify. A list of butterflies that are likely to be observed on the study site and the surrounding areas are summarised in **Table 11-3**.

Table 11-3: Butterfly species expected to occur on site.

Scientific Name	Common Name
Melanitis leda Helena	Evening Brown
Acraea anemosa	Broad-bordered Acraea
Acreae neobule	Wandering Acraea
Danaus chrysippus	African Monarch butterfly
Junonia hierta cebrene	Yellow Pansy butterfly
Danays chrysippus	Southern Milkweed

Scientific Name	Common Name
Charaxes jasius	Koppie Emperor
Cyclyrius pirithous	Common Blue
Hyalites esebria	Dusky Acrea butterfly
Phalantha aethiopica	Poplar Leopard
Alaena amazoula	Yellow Zulu
Catacroptera cloanthe	Pirate butterfly
Charaxes achaemenses	Bushveld Emperor
Pinacopteryx eriphia	Zebra White butterfly
Eurema brigitta	Broad-bordered yellow
Vanessa cardui	Painted Lady
Papilio demodocus	Citrus Swallowtail butterfly

11.4.1 Field investigation findings

The site has a rich and diverse species of butterflies(**Figure 11-6**), grasshopers and dung betteles.

Figure 11-6: Butterfly species observed onsite.

Figure 11-7:Dung beetle observed rolling the elephant droppings.

12 CONCLUSION

The study site is located within a protected area and thus it is deemed very sensitivity, It consists of unique habitat features which include a riverine system, rocky outcrops and shrubland habitat. Since the proposed expansion will be restricted to the disturbed part of the Kurhula lodge property, the anticipated impacts can be minimised and managed. The expected negative environmental impacts include:

- The loss and fragmentation of vegetation communities;
- The safe movement of faunal species; and
- The direct and indirect loss and disturbance of floral and faunal species and communities.

Completion of the terrestrial biodiversity assessment led to a disputing of classification for the terrestrial biodiversity theme sensitivity as allocated by the National Environmental Screening Tool. The project area has been assigned a Very High sensitivity, however that the piece of land that was earmarked for the expansion has been transformed and no species of special concern were observed within the area, and therefore a Medium sensitivity can be assigned.

13 Specialist Recommendations

The proposed expansion can be allowed to proceed, provided that the proposed expansion is restricted to the study site (Kurhula Lodge Property), the clearance of vegetation is minimised where possible and the animals onsite are respected.

The development footprint occurs within the 500m of a regulated area for a watercourse as such development must follow the guidelines stipulated in the project wetland assessment.

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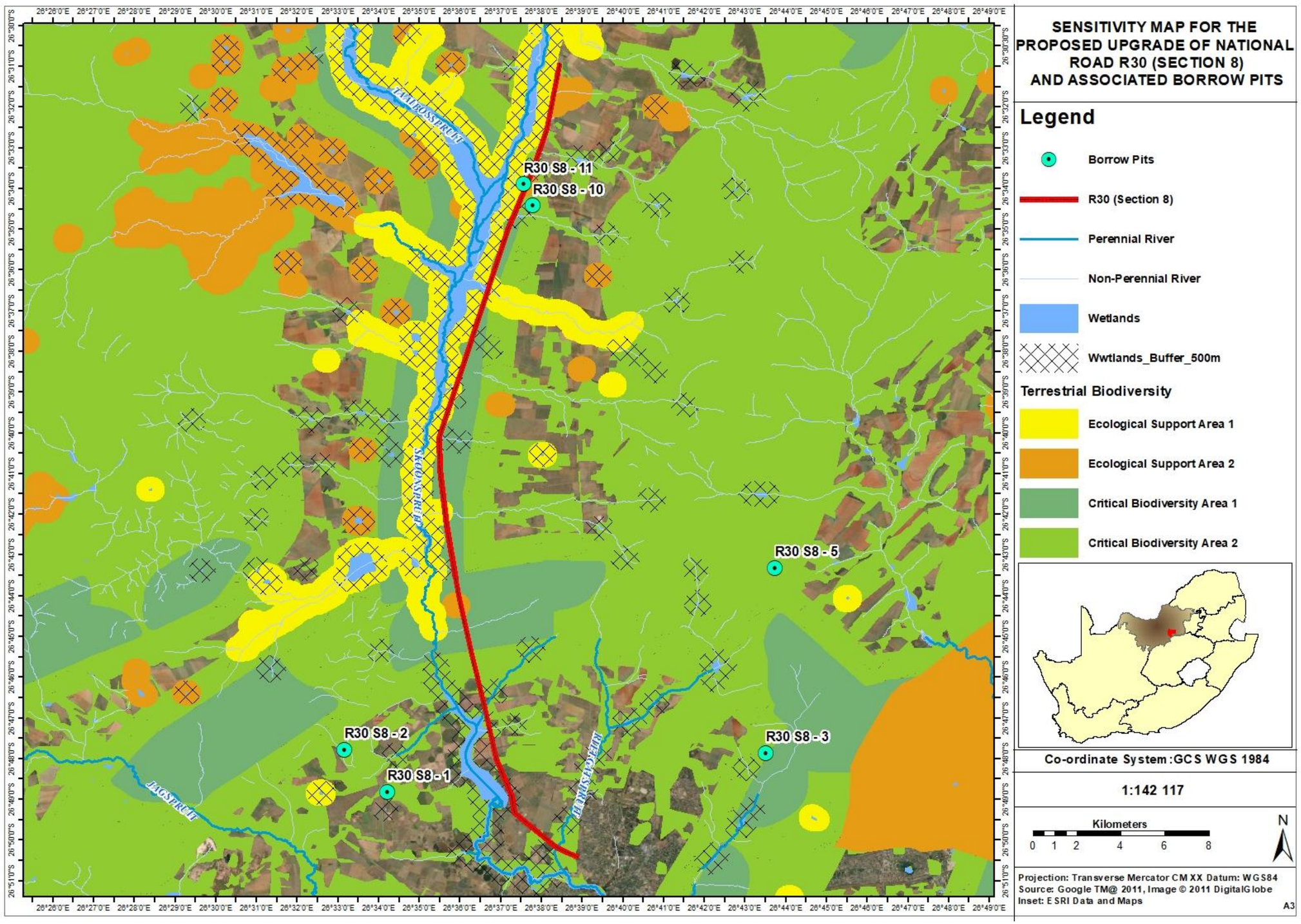
Appendix A: Sensitivity Map


SENSITIVITY MAP FOR THE PROPOSED UPGRADE OF NATIONAL ROAD R30 (SECTION 8) AND ASSOCIATED BORROW PITS
Legend
Borrow Pits
R30 (Section 8)
Perennial River
Non-Perennial River
Wetlands
Wwtlands_Buffer_500m
Terrestrial Biodiversity
Ecological Support Area 1
Ecological Support Area 2
Critical Biodiversity Area 1
Critical Biodiversity Area 2
R30 S8 - 11
R30 S8 - 10
R30 S8 - 5
R30 S8 - 2
R30 S8 - 1
R30 S8 - 3
LEEUBOSSPRUIT
SKOONSPRUIT
JAGSPRUIT
HEYCOPSKRAAL
Co-ordinate System: GCS WGS 1984
1:142 117
Kilometers
0 1 2 4 6 8
N
Projection: Transverse Mercator CM XX Datum: WGS84
Source: Google TM@ 2011, Image © 2011 DigitalGlobe
Inset: ESRI Data and Maps
A3

Appendix B Avifauna Species Expected onsite According to *Avibase* - The World Bird Database (https://avibase.bsc-eoc.org/checklist.jsp?region=ZAnw06)

APPENDIX H2 – AQUATIC BIODIVERSITY COMPLIANCE REPORT

AQUATIC COMPLIANCE STATEMENT FOR THE PROPOSED EXPANSION OF KURHULA LODGE NEAR HOEDSPRUIT, MARULENG LOCAL MUNICIPALITY WITHIN THE MOPANI DISTRICT MUNICIPALITY, LIMPOPO PROVINCE.

PRODUCED BY:

PRODUCED BY:	ENVIRONMENTAL ASSESSMENT PRACTITIONER	PRODUCED FOR:
 Physical Address: **5 13th Avenue, Fairlands, Randburg 2170** Mobile Number: **071 2082 364**Email: **info@ntumbulukoconsulting.co.za**	Earthlink Environmental Services	KURHULA WILDLIFE LODGE

March 2025

CONDITIONS RELATING TO THIS REPORT

DECLARATION OF INTEREST

Ntumbuluko Consulting Pty (Ltd) has no vested interest in the property studied nor is it affiliated with any other person/body involved with the property and/or proposed development. Ntumbuluko Consulting Pty (Ltd) is not a subsidiary, legally or financially of the proponent. The study was undertaken by Mr Tshuxekani Maluleke, he is a registered Natural Scientists with the following details:

QUALIFICATIONS

SPECIALIST	QUALIFICATION
Mr Tshuxekani Maluleke (SACNASP Reg. No. 120501)	MSc Environmental Sciences (Wits University) BSc Hons Zoology (University of Limpopo) BSc Hons Animal, Plant and Environmental Sciences (Wits University)

APPROVAL

PREPARED BY:

Mr Tshuxekani Maluleke

Wetland and Biodiversity Specialist

Msc. Environmental Sciences

31 Mach 2025

INDEMNITY

Although Ntumbuluko Consulting Pty (Ltd) exercises due care and diligence in rendering services and preparing documents, the client takes full responsibility for this report and its implementation in terms of the National Environmental Management Act of 1998, and exempt Ntumbuluko Consulting Pty (Ltd) and its associates and their sub-contractors from any legal responsibility based on the timing of the assessment, the result and the duration thereof, which has an influence on the credibility and accuracy of this report. Ntumbuluko Consulting Pty (Ltd) accepts no liability, and the client indemnifies Ntumbuluko Consulting Pty (Ltd) and its directors, managers, agents, and employees against all actions, claims, demands, losses, liabilities, costs, damages, and expenses arising from or in connection with services rendered, directly or indirectly, by Ntumbuluko Consulting Pty (Ltd) and by the use of this document.

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LIST OF ABBREVIATIONS AND ACCRONYMS

BGIS: Biodiversity Geographic Information System

DEM: Digital Elevation Model

DWAF: Department of Water Affairs and Forestry

DWS: Department of Water Affairs and Sanitation

EA: Environmental Authorisation

EIS: Ecological Importance and Sensitivity

EMPr: Environmental Management Program

GIS: Geographic Information System

HGM: Hydrogeomorphic

NFEPA: National Freshwater Priority Area

NWA: National Water Act (Act no 36 of 1998)

PES: Present Ecological Status

QDS: Quarter Degree Square

SANBI: South African National Biodiversity Institute

TWQRs: Target Water Quality Ranges

WMA: Water Management Areas

WUL: Water Use Licence

TERMS OF REFERENCE

Ntumbuluko Consulting Pty (Ltd) was requested to conduct a wetland delineation of the wetland/s present on the study sites. This report includes the delineation and provides an assessment on the ecological state of these areas.

1. INTRODUCTION

Ntumbuluko Consulting (Pty) Ltd has been appointed by Earthlink Environmental Services (Pty) Ltd on behalf of the OM Holdings SA (Pty) Ltd conduct a wetland delineation and compile an aquatic compliance statement for the proposed expansion of Kurhula lodge near Hoedspruit, Maruleng Local Municipality within the Mopani District Municipality, Limpopo Province.

To assess the baseline ecological state of the area and to present a detailed description of the receiving environment, both a desktop assessment as well as a field survey were conducted during March 2025. Furthermore, the desktop assessment and field survey both involved the detection, identification, and description of any locally relevant water resources. Where sensitive features were identified, the way these features may be affected by the proposed development was also investigated. A 500 m radius has been demarcated for the cluster for the identification of wetlands within the prescribed regulation area.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations. 2014 (GNR 326, 7 April 2017) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The approach has taken cognisance of the recently published Government Notices (GN) 320 (20 March 2020): "Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation" (Reporting Criteria).The National Web based Environmental Screening Tool (2023) has characterised the aquatic biodiversity theme for the area as 'Low' sensitivity after the site verification.

The purpose of conducting the specialist study is to provide relevant input into the overall Environmental Authorisation application process, with a focus on the proposed project activities and their associated impacts. This report, after taking into consideration the findings and recommendations provided by the specialist herein, should inform and guide the Registered Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making as to the ecological viability of the proposed projects.

The investigation has been undertaken to form part of the Environmental Impact assessment (EIA), and associated management plan (EMP). This report presents the findings of the wetland assessment and delineation of which the fieldwork was conducted on the **22 March 2025** (**Figure 1-1**).

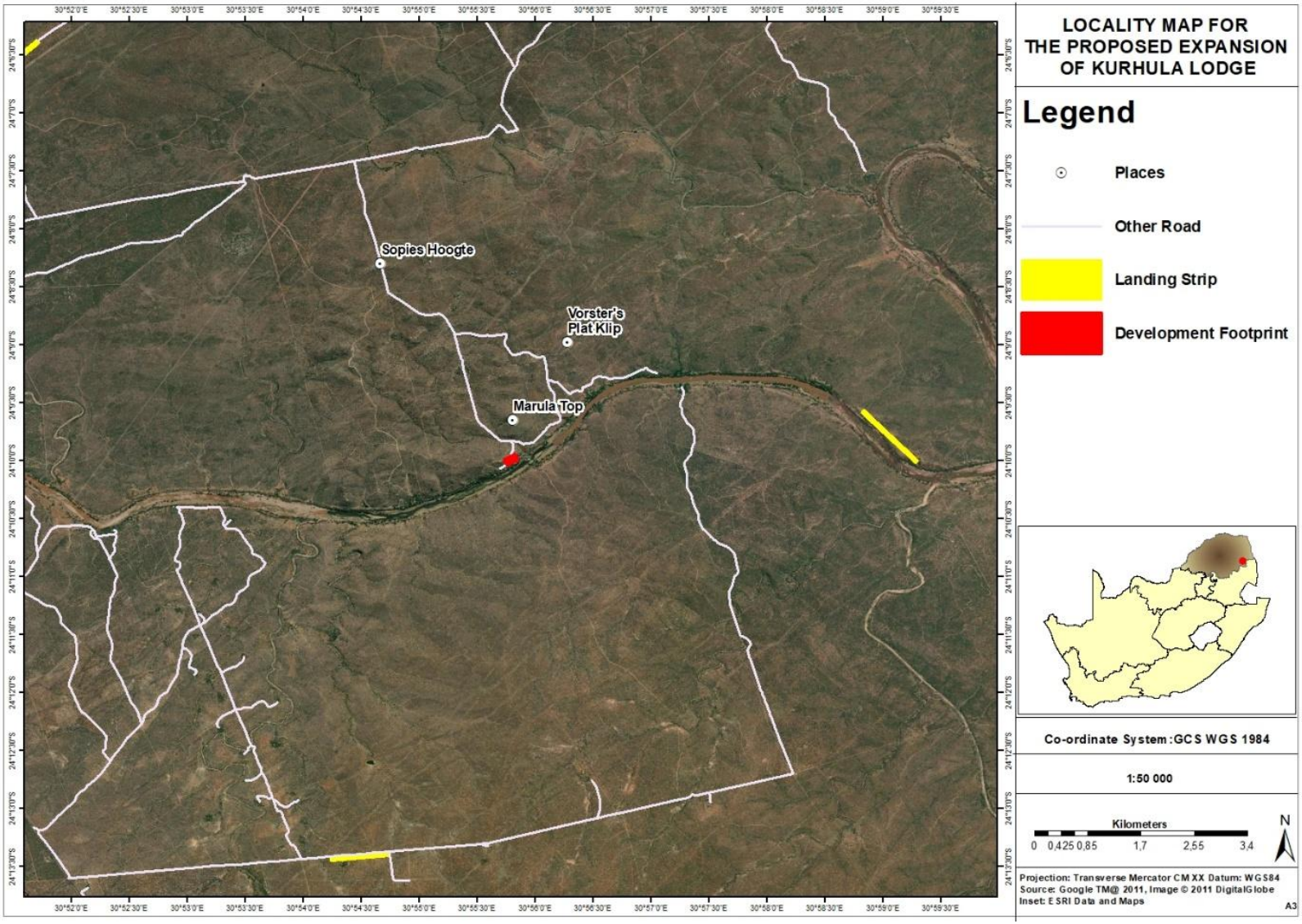

Figure 1-1: Locality Map (Study Site)

2. BACKGROUND

OM Holdings SA (Pty) Ltd plan to carry out existing renovations and alterations to the site on farm Parson 155 KT. Currently there are seven existing buildings. These buildings will be renovated with new internal layouts. Four of the existing buildings will have additions to increase the footprint. An addition of 3 new buildings will be added to the site. All renovations, alterations and additions must comply with SANS 10400 and the Parson's Nature Reserve Guidelines. All drainage and water systems to make use of septic tanks and French drains. All water heaters and stoves to use gas.

- Guest Rooms:

There will be an addition of 2 new guest lodges added to the site. With these new lodges the bedroom count is up to seven beds in six guest cottages. These cottages will receive an outdoor shower area and a covered deck that is connected to the lodges.

- Manager's Cottage:

There will be a new manager's cottage that will have two bedrooms in one cottage. The cottage will receive an outdoor shower area and a covered deck that is connected to the lodge.

- Staff Quarter's:

The existing staff shed will be enlarge to accommodate a new working force that will have six rooms and twelve beds with workers sharing a room. The new staff quarters will have two outdoor areas. One are will have a boma. No covered Patio or decking.

- Ranger's Lodge:

The existing ranger's lodge will be upgraded to a 4 bedroom and 4 beds ranger's lodge.

- Main House:

The main house has an existing deck and pool. This is also to be upgrade and enlarged.

- Pent Lodge:

The Pent Lodge will hold a hot tub on the existing decking.

- Site Work:

New walkways have been established with gravel paths.

A drop off area in front of the existing house has been created with gravel.

All pathways and car paths are covered with gravel.

➢ Total Area's:

- Site Area: 203 987.36 m²
- Total Footprint = 886m²
- Total Walkway (Gravel) = 532m²

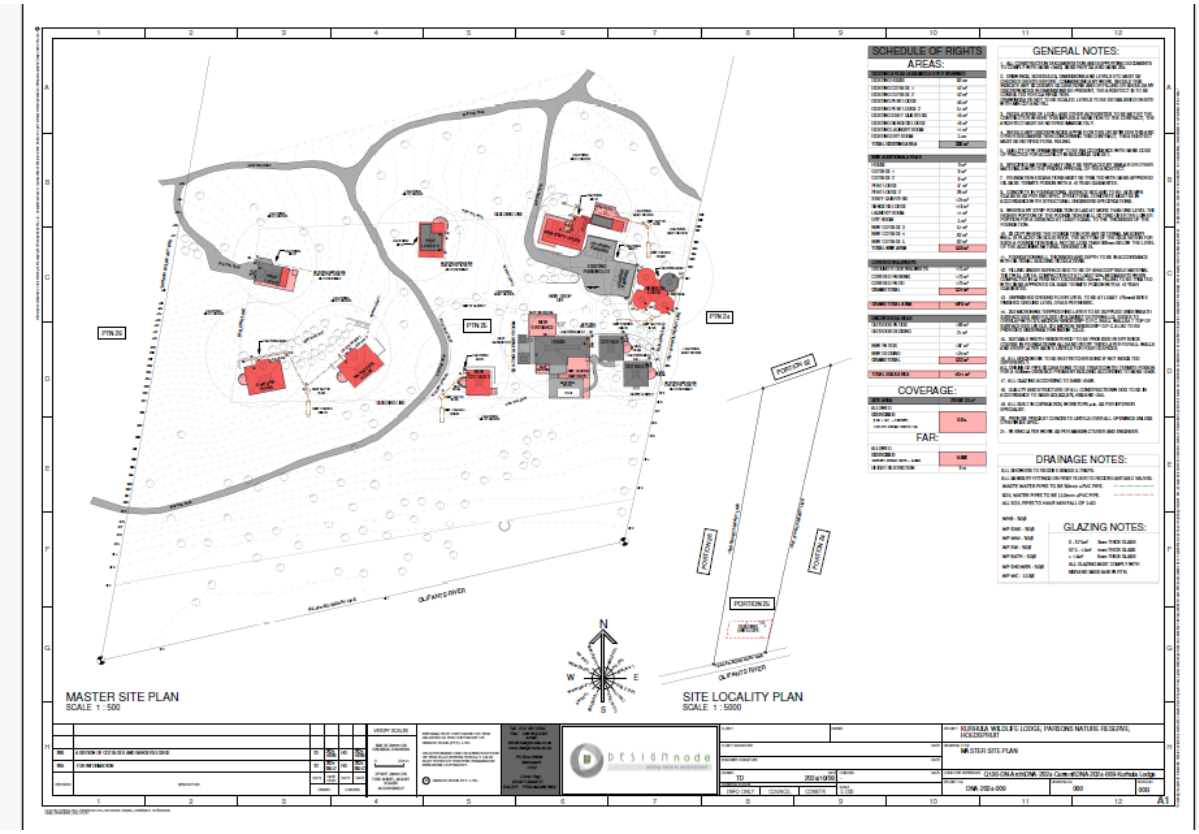

Figure 2-1: Site Development Plan.

3. LEGAL FRAMEWORK

3.1 National Environmental Management Act (Act No. 107 of 1998)

The EIA Regulations, promulgated under NEMA, focus primarily on creating a framework for co-operative environmental governance. NEMA provides for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by State Departments and to provide for matters connected therewith.

3.2 National Waste Act, 2008 (Act No. 59 of 2008)

The NEMWA aims at promoting sustainable waste management practices through the implementation of "Integrated Waste Management Planning", where "Integrated Waste Management Planning is viewed as a holistic approach of managing waste, aimed at optimising waste management practises to ensure that the implementation thereof yields practical solutions that are environmentally, economically and socially sustainable and acceptable to the public and all relevant spheres of government".

3.3 National Water Act, 1998 (Act No. 36 of 1998)

The National Water Act, 1998 (Act No. 36 of 1998) (NWA) aims to provide management of the national water resources to achieve sustainable use of water for the benefit of all water users. This requires that the quality of water resources is protected as well as integrated management of water resources with the delegation of powers to institutions at the regional or catchment level. The purpose of the Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in responsible ways. Of specific importance to this application is Section 19 of the NWA, which states that an owner of land, a person in control of land or a person who occupies or uses the land which thereby causes, has caused or is likely to cause pollution of a water resource must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring and must therefore comply with any prescribed waste standard or management practices.

Regulations GN 704 dated June 1999 under the NWA, 1998 (Act 36 of 1998) stipulates that no development activities may take place within the 1:100 year floodline of a watercourse, or within 100 m of the watercourse, whichever is the furthest.

Regulations GN 509 dated August 2016 under the Section 21 c and i water uses of the NWA, 1998 (Act No 36 of 1998) stipulates the:

"Extent of a watercourse" as:

(a) The outer edge of the 1 in 100-year flood line and/or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam.

"Regulated area of a watercourse" for section 21(c) or (i) of the Act water uses in terms of this Notice means:

(a) The outer edge of the 1 in 100-year flood line and /or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam;
(b) In the absence of a determined 1 in 100-year flood line or riparian area the area within 100 m from the edge of a watercourse where the edge of the watercourse is the first identifiable annual bank fill flood bench (subject to compliance to section 144 of the Act); or
(c) A 500 m radius from the delineated boundary (extent) of any wetland or pan.

3.4 National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)

The purpose of the Biodiversity Act is to provide for the management and conservation of South Africa's biodiversity within the framework of the 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.

4. SCOPE OF WORK

4.1 Wetland Delineation and Assessment

The scope of work entailed the following:

- Field visit to delineate the outer boundary of wetland/riparian habitats within a 500 m buffer from the existing Kurhula lodge site according to the methods contained in the manual 'A Practical Field Procedure for Identification and Delineation of Wetland and Riparian Areas' (DWAF, 2005);
- Assess and describe the health of any wetland units identified, through evaluation of indicators based on geomorphology, hydrology and vegetation as per the WET-Health methods;
- Assess and describe the Ecological Services, Importance and Sensitivity (EIS) of any wetlands identified on site;
- Identify potential negative impacts on the wetland(s) from the Kurhula Lodge and assess the significance of these impacts;
- Provide recommended mitigation measures for the identified impacts in order to avert or lower the significance of the negative impacts.

4.2 Ecological Assessment

The scope of work entailed to the Biodiversity Assessment following:

- An examination of onsite and SANBI GIS databases on Endemic and Red Data faunal and floral species in the study area;
- Provide recommended mitigation measures for the identified impacts in order to avert or lower the significance of the negative impacts; and
- Identify any sensitive areas.

5. ASSUMPTIONS AND LIMITATIONS

- It is assumed that wetland plant species flowering only during specific times of the year could be confused with a very similar species of the same genus.
- Some wetland plant species that emerge and bloom during another time of the year or under very specific circumstances may have been missed entirely.
- In order to obtain a comprehensive understanding of the dynamics of the wetland habitats of the study area, surveys should ideally have been replicated over several seasons and over a number of years. However, due to project time constraints such long-term studies are not feasible and this survey was conducted in one season during a once-off site visit of a single day.
- Data collection in this study relied heavily on data from representative, homogenous wetland sections, as well as general observations, analysis of satellite imagery from the past until the present, generic data and a desktop analysis.

- No formal water quality or aquatic faunal assessments (e.g., SASS 5) were conducted as part of this study. All comments on these subjects were made from estimations of the current, visible situation in the field.
- The specialist responsible for this study reserves the right to amend this report, recommendations and/or conclusions at any stage should any additional or otherwise significant information come to light.

6. SITE LOCATION

Kurhula Lodge is located in road is located in Hoedspruit on the foot of the Klein Drakensberg, in the Limpopo province of South Africa. The lodge is located with the Parson's Nature Reserve (**Figure 6-1**). The GPS Coordinates are as follows: 24° 09' 59.24" S 30° 55' 35" E.

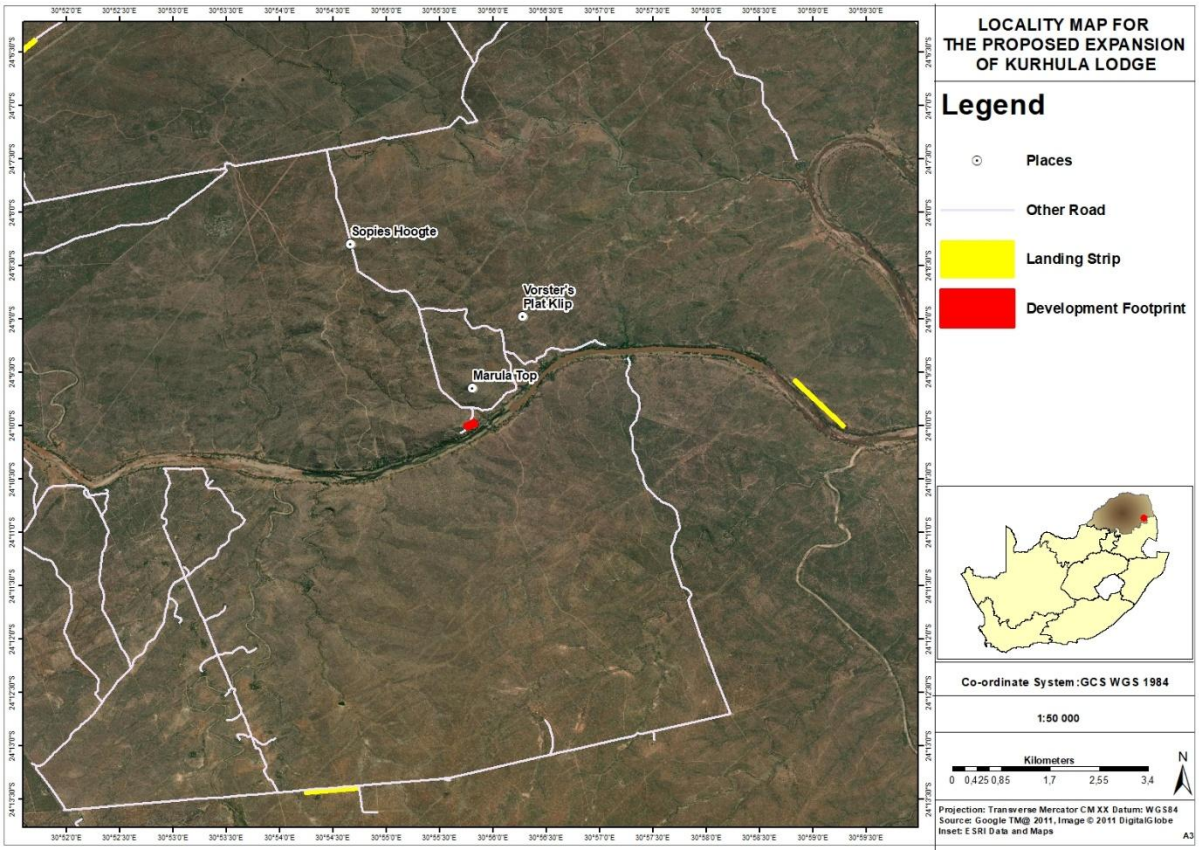

Figure 6-1: Locality Map

7. METHODOLOGY

7.1 Wetland Assessment

For the purpose of this assessment, wetlands are considered as those ecosystems defined by the National Water Act No. 36 of 1998 as:

"Land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil."

7.1.1 Desktop Assessment

Examination of the National Freshwater Ecosystem Priority Areas (NFEPA)'s databases were undertaken for the project. The NFEPA project aims to produce maps which provide strategic spatial priorities for conserving South Africa's freshwater ecosystems and supporting sustainable use of water resources. These strategic spatial priorities are known as Freshwater Ecosystem Priority Areas, or FEPAs. FEPAs are determined through a process of systematic biodiversity planning and involved collaboration of over 100 freshwater researchers and practitioners. They are identified based on a range of criteria dealing with the maintenance of key ecological processes and the conservation of ecosystem types and species associated with rivers, wetlands and estuaries (MacFarlane et al., 2009).

The assessment of the study site involved the investigation of aerial photography, GIS databases including the NFEPA and South African National Wetland maps as well as literature reviews of the study site in order to determine the likelihood of wetland areas within this site.

7.1.2 Field Assessment

The wetland delineation was conducted as per the procedures described in 'A Practical Field Procedure for Identification and Delineation of Wetland and Riparian Areas – Edition 1' (Department of Water Affairs, 2005) (**Figure 7-1**). This document requires the delineator to give consideration to four indicators in order to find the outer edge of the wetland zone:

- The Terrain Unit Indicator helps to identify those parts of the landscape where wetlands are more likely to occur.
- The Soil Form Indicator identifies the soil forms, as defined by the Soil Classification Working Group (1991), which are associated with prolonged and frequent saturation.
- The Vegetation Indicator identifies hydrophilic vegetation associated with frequently saturated soils.
- The Soil Wetness Indicator identifies the morphological "signatures" developed in the soil profile as a result of prolonged and frequent saturation. Signs of wetness are characterised by a variety of aspects. These include marked variations in the colours of various soil components, known as

mottling; a gleyed soil matrix or the presence of Mn/Fe concretions. It should be noted that the presence of signs of wetness within a soil profile is sufficient to classify an area as a wetland area despite the lack of other indicators.

In assessing whether an area is a wetland, the boundary of a wetland or a non- wetland area should be considered to be the point where the above indicators are no longer present. An understanding of the hydrological processes active within the area is also considered important when undertaking a wetland assessment. Indicators should be 'combined' to determine whether an area is a wetland, to delineate the boundary of that wetland and to assess its level of functionality and health.

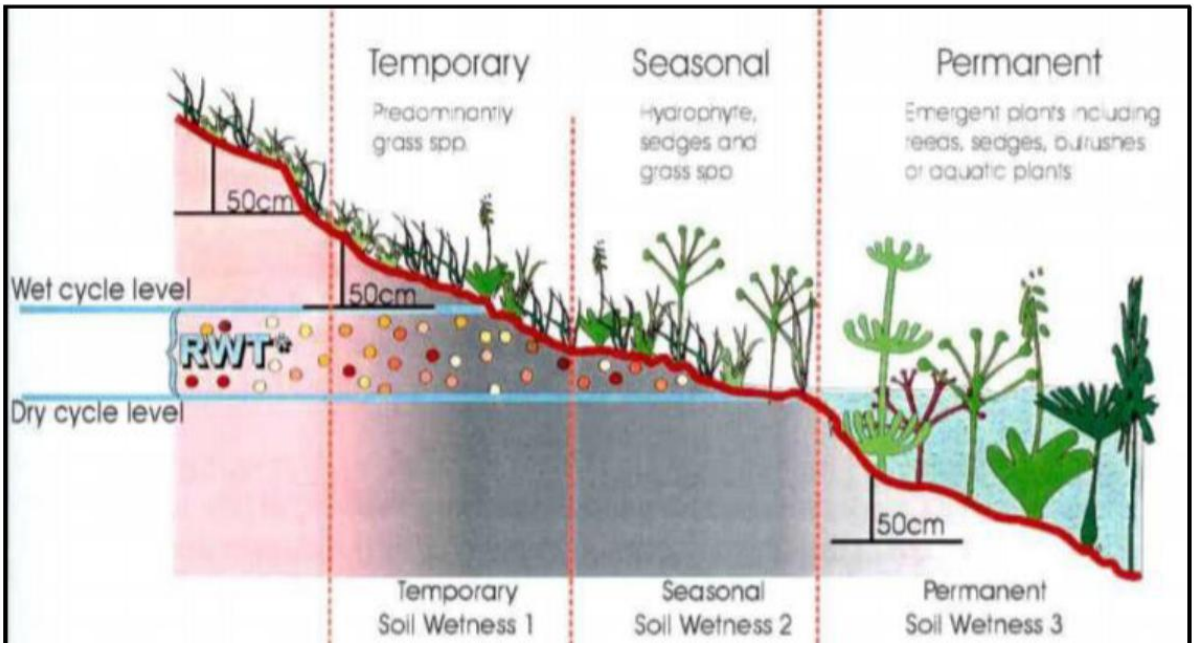

Figure 7-1: Different zones of wetness found in wetlands, indicating how the soil wetness and vegetation indicators change (DWAF, 2005).

7.1.3 Wetland Functionality and Health

Wetlands within the study area serve to improve habitat within and potentially downstream of the study area through the provision of various ecosystem services. Many of these functional benefits contribute directly or indirectly to increased biodiversity within the transformed study area as well as downstream of the study area through provision and maintenance of appropriate habitat and associated ecological processes (**Table 7-1**).

Table 7-1: Ecosystem services provided by wetlands (Kotze et al, 2008).

Ecosystem services supplied by wetlands	Indirect benefits	Regulating and supporting benefits	Flood attenuation		The spreading out and slowing down of floodwaters in the wetland, thereby reducing the severity of floods downstream.
			Streamflow regulation		Sustaining streamflow during low flow periods.
			Water quality enhanced benefits	Sediment trapping	The trapping and retention in the wetland of sediment carried by runoff waters
				Phosphate assimilation	Removal by the wetland of phosphates carried by runoff waters.
				Nitrate assimilation	Removal by the wetland of nitrates carried by runoff waters.
				Toxicant assimilation	Removal by the wetland of toxicants (e.g. metals, biocides and salts) carried by runoff waters.
				Erosion control	Controlling of erosion at the wetland site, principally through the protection provided by vegetation.
			Carbon storage		The trapping of carbon by the wetland, principally as soil organic matter.
	Biodiversity Maintenance				Through the provision of habitat and maintenance of natural process by the wetland, a contribution is made to maintaining biodiversity of the surrounding area.
	Direct benefits	Provisioning benefits	Provision of water for human use		The provision of water extracted directly from the wetland for domestic, agriculture or other purposes.
			Provision of harvestable resources		The provision of natural resources from the wetland, including livestock grazing, craft plants, fish, etc.
			Provision of cultivated foods		The provision of areas in the wetland favourable for the cultivation of foods.
		Cultural benefits	Cultural heritage		Places of special cultural significance in the wetland, e.g., for baptisms or harvesting of culturally significant plants.
			Tourism and recreation		Sites of value for tourism and recreation in the wetland, often associated with scenic beauty and abundant birdlife.
	Education and research				Sites of value in the wetland for education or research.

An indication of the functions and ecosystem services provided by wetlands can be assessed through the WET- Ecoservices manual (Kotze et al., 2008) and are based on a number of characteristics that are relevant to the particular benefit provided by the wetland. A Level 2 WET-Ecoservices assessment was undertaken for the wetlands occurring on site. A Level 2 assessment is the highest form of WET-Ecoservices assessment that can be undertaken and involves an on-site and desktop assessment.

Each wetland's ability to contribute to ecosystem services within the study area is further dependant on the particular wetland's Present Ecological State (PES) in relation to a benchmark or reference condition. A Level 2 Wetland Health assessment was conducted on the wetlands delineated as per the procedures described in 'Wet- Health: A technique for rapidly assessing wetland health' (MacFarlane et al., 2009). This document assesses the health status of a wetland through evaluation of three main factors –

Hydrology: defined as the distribution and movement of water through a wetland and its soils.

Geomorphology: defined as the distribution and retention patterns of sediment within the wetland.

Vegetation: defined as the vegetation structural and compositional state.

The WET-Health tool evaluates the extent to which anthropogenic changes have impacted upon wetland functioning or condition through assessment of the above-mentioned three factors. Scores range from 0 indicating no impact to a maximum of 10 which would imply that impacts had completely destroyed the functioning of a particular component of the wetland. Impact scores obtained for each of the modules reflect the degree of change from natural reference conditions (**Table 7-2**).

Table 7-2: Guideline for interpreting the magnitude of impacts on wetland integrity.

IMPACT CATEGORY	DESCRIPTION	RANGE
None	No discernible modification or the modification is such that it has no impact on wetland integrity.	0 – 0.9
Small	Although identifiable, the impact of this modification on wetland integrity is small.	1 – 1.9
Moderate	The impact of this modification on wetland integrity is clearly identifiable, but limited.	2 – 3.9
Large	The modification has a clearly detrimental impact on wetland integrity. Approximately 50% of wetland integrity has been lost.	4 – 5.9
Serious	The modification has a clearly adverse effect on this component of habitat integrity. Well in excess of 50% of the wetland integrity has been lost.	6 – 7.9
Critical	The modification is present in such a way that the ecosystem processes of this component of wetland health are totally / almost totally destroyed.	8– 10

The tool evaluates the health of the wetland and is determined by a score known as the Present Ecological Score. The health assessments for the hydrology, geomorphology and vegetation components were then represented by the Present Ecological State (PES) categories. The PES categories are divided into six units (A-F) based on a gradient from "unmodified/natural" (Category A) to "severe/complete deviation from natural" (Category F) as depicted in **Table 7-3**.

Table 7-3: Health categories used by WET-Health for describing the integrity of wetlands.

DESCRIPTION	IMPACT SCORE	HEALTH CATEGORY
Unmodified, natural.	0 – 1.0	A
Largely natural with few modifications. A slight change in ecosystem processes is discernible and a small loss of natural habitats and biota may have taken place.	1.1 - 2.0	B
Moderately modified. A moderate change in ecosystem processes and loss of natural habitats has taken place but the natural habitat remains predominantly intact	2.1 - 4.0	C
Largely modified. A large change in ecosystem processes and loss of natural habitat and biota and has occurred.	4.1 - 6.0	D
The change in ecosystem processes and loss of natural habitat and biota is great but some remaining natural habitat features are still recognizable.	6.1 - 8.0	E
Modifications have reached a critical level and the ecosystem processes have been modified completely with an almost complete loss of natural habitat and biota.	8.1 - 10.0	F

Since hydrology, geomorphology and vegetation are interlinked their scores have been aggregated to obtain an overall PES health score using the following formula (MacFarlane et al., 2009):

Health = ((Hydrology score) x3 + (Geomorphology score) x2 + (Vegetation score) x2)) ÷ 7

This gives a score ranging from 0 (pristine) to 10 (critically impacted in all respects). Hydrology is weighted by a factor of 3 since it is considered to have the greatest contribution to wetland health. Due to differences in the pattern of water flow through various hydro-geomorphic (HGM) types (**Figure 7-2**), the tool requires that the wetland is divided into distinct HGM units at the outset. Ecosystem services for each HGM unit are then assessed separately.

Each HGM unit is discussed on the following pages in more detail in terms of the functional integrity, Present Ecological Score and the impacts which affect these.

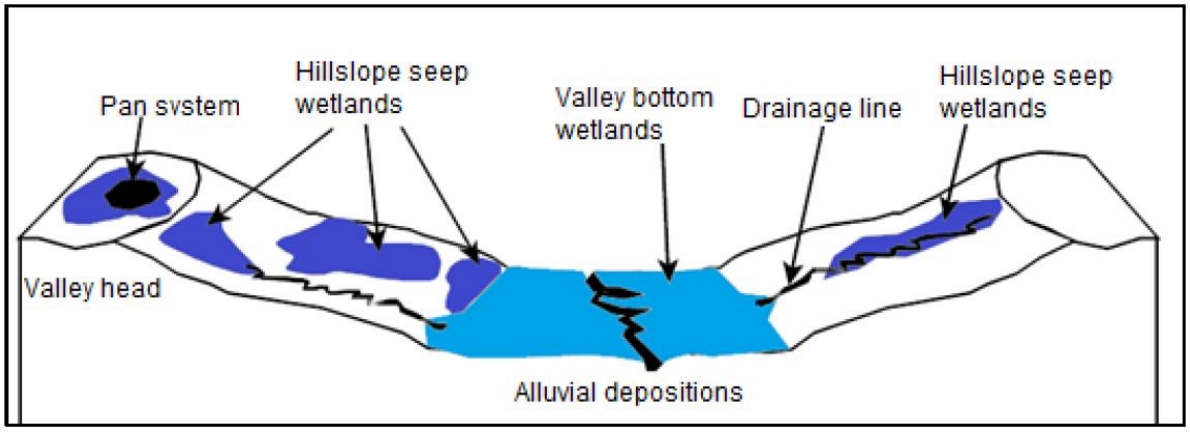

Figure 7-2: Diagrammatic representation of common wetland systems identified in Southern Africa (based on Kotze et al., 2008).

8. BACKGROUND INFORMATION

8.1 GEOLOGY & SOILS

From north to south, the Swazian Goudplaats Gneiss, Makhutswi Gneiss and Nelspruit Suite (granite gneiss and migmatite), and further south still, the younger Mpuluzi Granite (Randian) form the major basement geology of the area. Archaean granite and gneiss weather into sandy soils in the uplands and clayey soils with high sodium content in the lowlands.

8.2 CLIMATE

The study site experiences summer rainfall with dry winters. The Mean Annual Precipitation (MAP) ranges from about 450 mm on the eastern flats to about 900 mm near the escarpment in the west. In a north-south direction, MAP of the unit appears to peak in Swaziland. The study is located in a frost-free region. The mean monthly maximum and minimum temperatures for Skukuza 39.5°C and –0.1°C for January and June, respectively. Corresponding values for Hoedspruit 38.0°C and 3.7°C for January and July, respectively. See also climate diagram for SVl 3 Granite Lowveld (**Figure 8-1**).

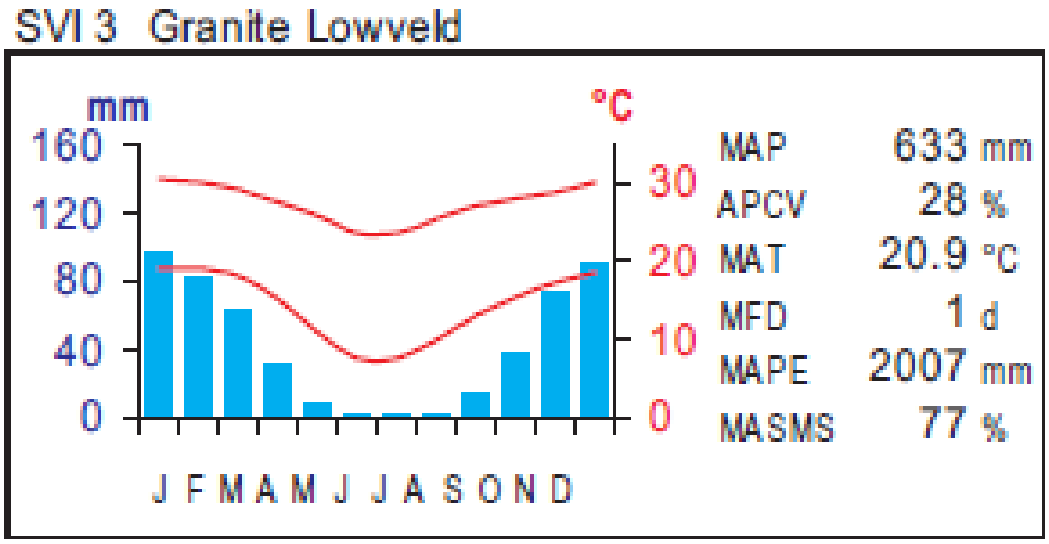

Figure 8-1: climate diagram for Gh 12 Vaal-Vet Sandy Grassland

8.3 VEGETATION TYPE: GRANITE LOWVELD (SVL 3)

The proposed development is located within the Granite Lowveld **(**SVl 3) vegetation type (**Figure 8-2**). This vegetation unit consists of tall shrubland with few trees to moderately dense low woodland on the deep sandy uplands with *Terminalia sericea*, *Combretum zeyheri* and *C. apiculatum* and ground layer including *Pogonarthria squarrosa*, *Tricholaena monachne* and *Eragrostis rigidior*. Dense thicket to open savanna in the bottomlands with *Acacia nigrescens*, *Dichrostachys cinerea*, *Grewia bicolor* in the woody layer. The dense herbaceous layer contains the dominant *Digitaria eriantha*, *Panicum maximum* and *Aristida congesta* on fine-textured soils, while brackish bottomlands support *Sporobolus nitens*, *Urochloa mosambicensis* and *Chloris virgata*.

At seep lines, where convex topography changes to concave, a dense fringe of *Terminalia sericea* occurs, with *Eragrostis gummiflua* in the undergrowth.

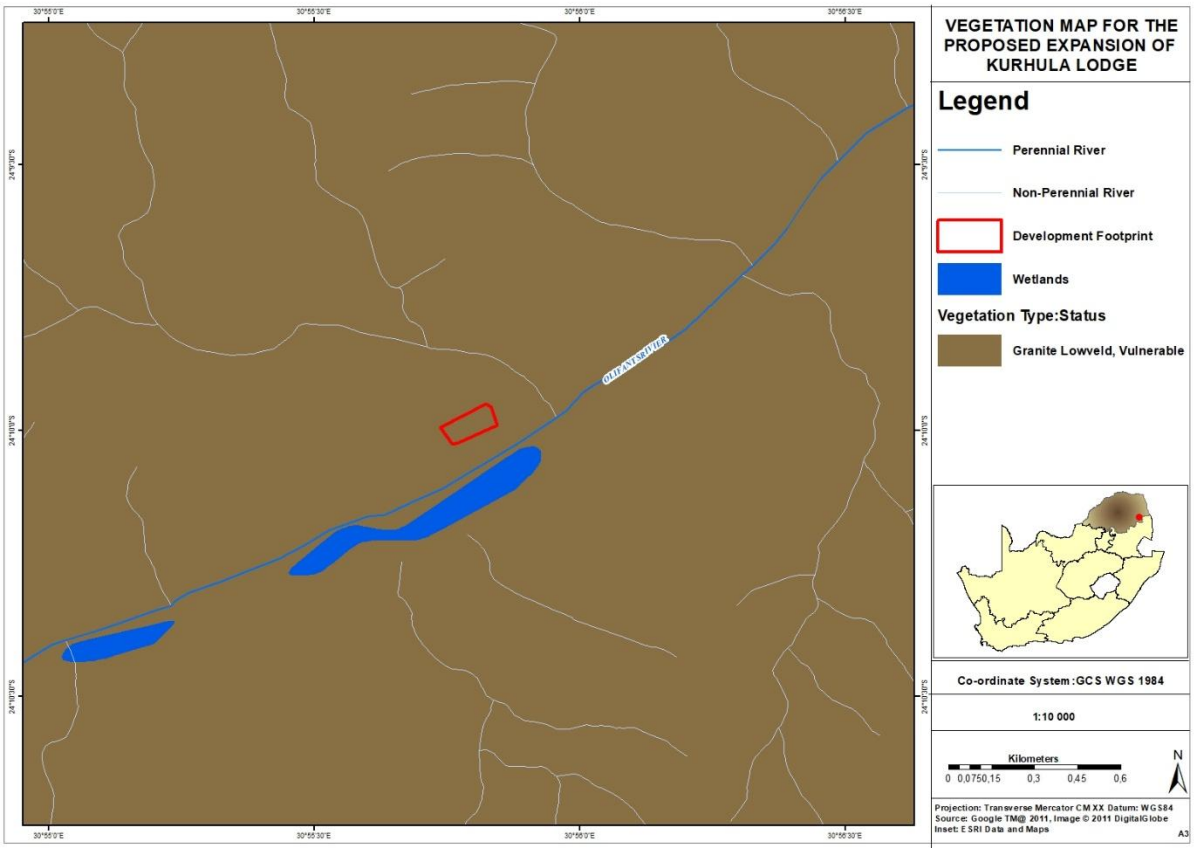

Figure 8-2: Vegetation map.

8.4 SURFACE HYDROLOGY

The aquatic sensitivity of the proposed site is classified as **VERY HIGH** in the Screening Report. The National Freshwater Ecosystems Priority Areas (NFEPA) identifies important wetlands in South Africa (**Figure 8-3**). The National Freshwater Ecosystems Priority Areas (NFEPA) identifies important wetlands in South Africa. The study site falls under the Olifants Water Management Area (WMA), within the quaternary catchment B72D. **The existing Kurhula lodge is located within the banks of the olifants river (Figure 8-3). According to the 2018 Limpopo Province Map of Critical Biodiversity Areas, the entire lodge is located within a Critical Biodiversity Area (Figure 8-4).**

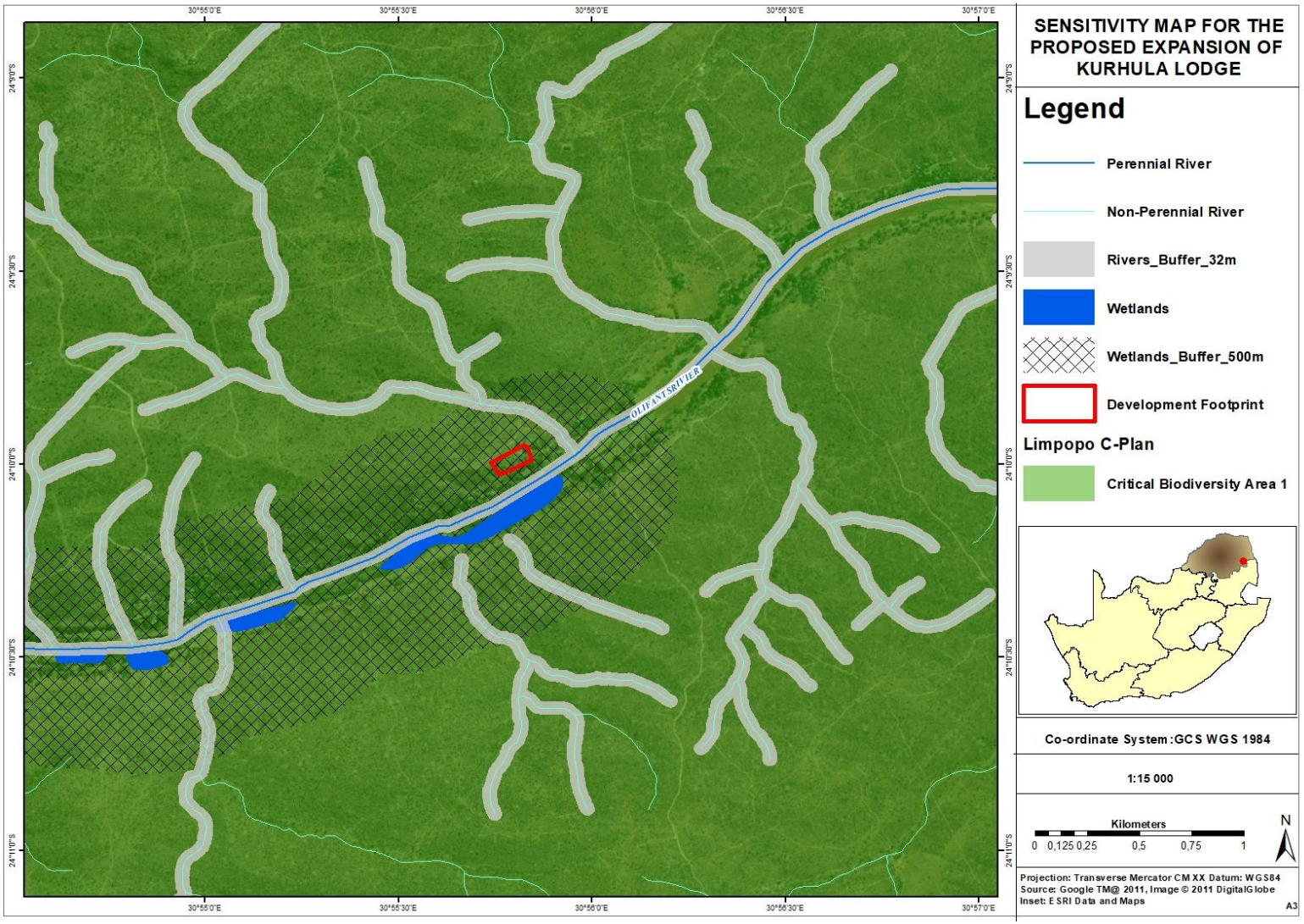

Figure 8-3: Surface Water Map

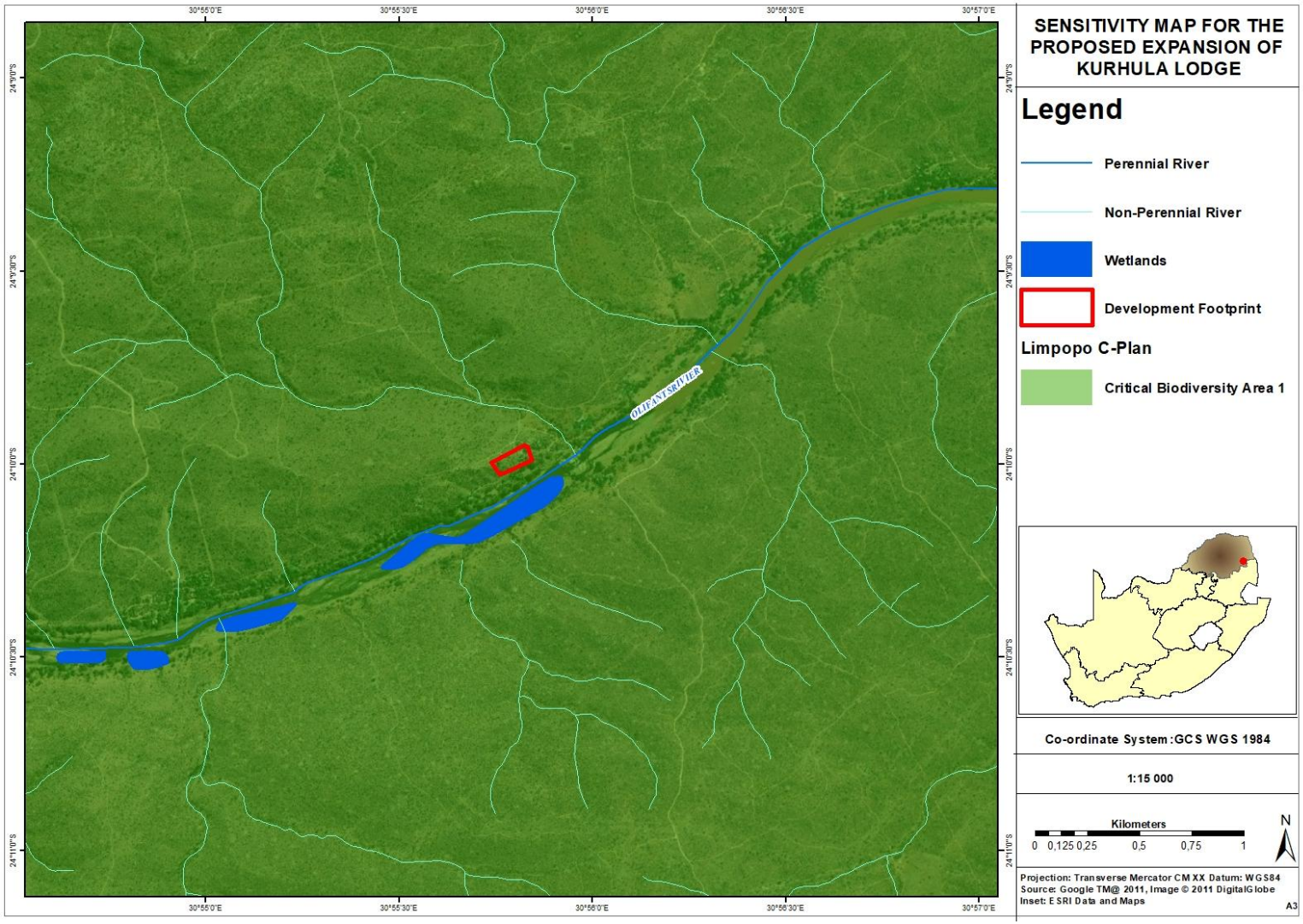

Figure 8-4: Surface Water Map 1.

9. RESULTS

9.1 Wetland Delineation and Assessment

This section provides the findings of the various methodologies utilised during the wetland assessment.

9.1.1 FIELD SURVEY

The study site consists of the tall shrubland with few trees to moderately dense low woodland on the deep sandy uplands with Terminalia sericea, Combretum zeyheri and C. apiculatum and ground layer including Pogonarthria squarrosa, Tricholaena monachne and Eragrostis rigidior (**Figure 9-2**).

Figure 9-1:Small shrubs evidence of trees that have been pushdown by elephants.

9.1.2 WETLAND FEATURES

The existing Kurhla lodge is located within the regulated area (500m) of a watercourse namely the Olifants river (**Figure 9-3 to** Error! Reference source not found.). The Olifants River is a river in South Africa and Mozambique, a tributary of the Limpopo River. It falls into the Drainage Area B of the Drainage basins of South Africa. The historical area of the Pedi people, Sekhukhuneland, is located between the Olifants River and one of its largest tributaries, the Steelpoort River

Figure 9-2: Condition of the vegetation observed onsite.

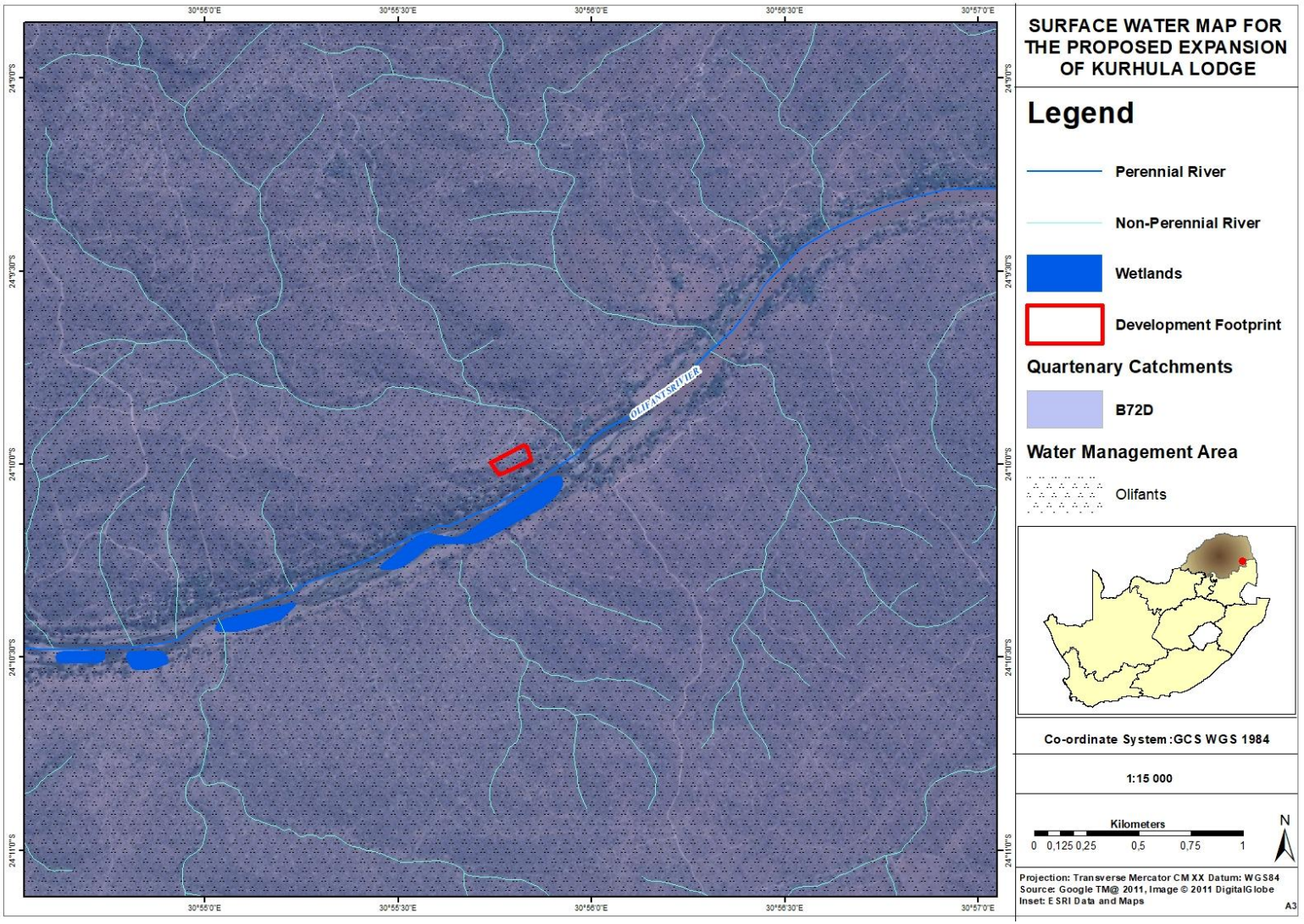

Figure 9-3:Map of the wetland and watercourses within 500m of the lodge.

9.1.3 Terrain indicator

The topography of an area is generally a good practical indicator for identifying those parts in the landscape where wetlands are likely to occur. Generally, wetlands occur as a valley bottom unit however wetlands can also occur on steep to mid slopes where groundwater discharge is taking place through seeps (DWAF, 2005). In order to classify a wetland system, the localised landscape setting must be taken into consideration through ground-truthing of the study site after initial desktop investigations (Ollis et al., 2014).

The study site can be characterized as Gently to moderately sloping upper pediment slopes (**Figure 9-4)**.

Figure 9-4: Slope of the Olifants rivers.

9.1.4 Soil wetness and soil form indicator

The watercourse onsite has water and support a host of hydrophytes and alien invasive plant species. Wetland areas were identified and mainly delineated according to the presence of hydric (wetland) soil types. Hydric soils are defined as those which show characteristics (redoximorphic features). The watercourses consist mainly of clay soils (**Figure 9-5**).

Figure 9-5:Soil Observed within one the watercourses.

9.1.5 Vegetation indicator

According to DWAF (2005), vegetation is regarded as a key component to be used in the delineation procedure for wetlands. Vegetation also forms a central part of the wetland definition in the National Water Act, Act 36 of 1998. There was evidence of hydrophytes as reeds (*Phragmites australis*) (**Figure 9-6**).

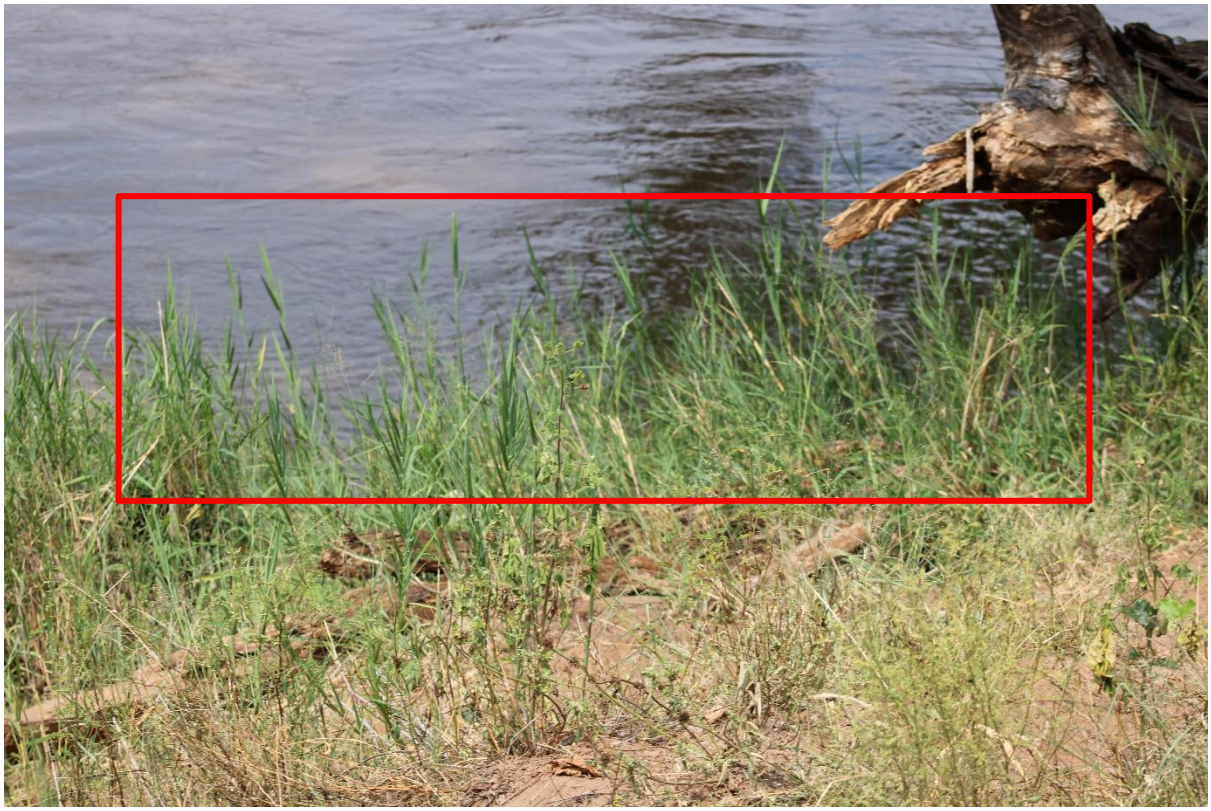

Figure 9-6: Phragmite species observed onsite.

Refer to Figure 9-2 for the conditions of the vegetation observed along the road.

9.1.6 Wetland Delineation

Any wetlands identified on the site were categorised according to the National Wetland Classification System for South Africa (Ollis et al., 2013). The wetland area was classified as a hydrogeomorphic (HGM) unit. An HGM unit is a recognisable physiographic wetland-unit based on the geomorphic setting, water source of the wetland and the water flow patterns (MacFarlane et al., 2009). The proposed project is located within 500m of a single watercourse (Olifants river).

9.2 Wetland Functional and Health Assessment

9.2.1 Wetland Ecological Importance and Sensitivity

The EIS and functions were calculated using the new draft DWA guidelines and model, as developed by M. Rountree, but not yet published. Information used form the SIBIS and VEGMAP products. A mean score between 0 and 4 is obtained, with 0 as the lowest and 4 as the highest score. No classification of the scores is given.

The watercourse onsite has an Ecological Importance and Sensitivity (EIS) score of 1 (**Table 9-1**). This is a value between 0 and 4, with 0 being very low and 4 very high. The rivers, therefore, have a Medium EIS score. It is regarded as being modified.

Table 9-1: EIS calculation of the wetland

ECOLOGICAL IMPORTANCE AND SENSITIVITY	SCORE (0-4)	*CONFIDENCE (1-5)*	MOTIVATION
Biodiversity support	**3.00**	*4*	
Presence of Red Data species	**4.00**	*4.00*	No known red data or protected species observed on site.
Populations of unique species	**0.00**	*4.00*	No unique plant or animal populations were observed.
Migration/ breeding/ feeding sites	**2.00**	*4.00*	Though a few bird species were observed, few nests were present.
Landscape scale	**1.00**	*4.80*	
Protection status of the wetland	**4.00**	*5.00*	The wetland and surrounding area have been exposed to various agricultural practices.
Protection status of the vegetation type	**4.00**	*5.00*	The wetland is located in an Endangered and Vulnerable vegetation types. Although dominated by *Phragmites,* which are homogeneous.
Regional context of the ecological integrity	**2.50**	*5.00*	The wetland is in PES class C due to the degradation of the surrounding areas.
Size and rarity of the wetland type/ s present	**4.00**	*4.00*	The wetland is not particularly rare and has no vulnerable ecosystem present.

ECOLOGICAL IMPORTANCE AND SENSITIVITY	SCORE (0-4)	*CONFIDENCE (1-5)*	MOTIVATION
Diversity of habitat types	**1.00**	*5.00*	The wetland has a low species diversity as well as habitat diversity. The wetland is dominated by a homogeneous stand of *Phragmites australis*.

9.2.2 Wetland Health and PES

It should be noted in **Table 9-2** by Kleynhans (1999) that if a score of less than 2 is attributed to any impact, the lowest rating, rather than the mean, is used to attribute PES class.

Table 9-2:PES classes (from Kleynhans 1999) indicating the interpretation of the mean scores to rate the PES category.

WITHIN GENERALLY ACCEPTABLE RANGE		
Category	**Score**	**Description**
A	>4	Unmodified, or approximates natural condition and/or represents a natural condition due to successful rehabilitation process/program(s) which has occurred and/or are in the process of occurring.
B	>3 and 4	Largely natural with few modifications. A small change in natural habitats and biota may have taken place but the ecosystem functions are essentially unchanged Moderately modified.
C	>2 and 3	Loss and change of natural habitat and biota have occurred, but the basic ecosystem functions are still predominantly unchanged.
D	2	Largely modified. A large loss of natural habitats and basic Ecosystem functions have occurred.
OUTSIDE GENERAL ACCEPTABLE RANGE		
E	>0 and 2	Seriously modified. The losses of natural habitats and basic ecosystem functions are extensive Critically modified.
F	0	Modifications have reached a critical level, and the system has been modified completely with an almost complete loss of natural habitat

The wetland and perennial river in the study area have EIS categories and EMC values as indicated in **Table 9-3**.

Table 9-3: Summary of EIS onsite.

Wetland	EIS category	EMC
Olifants River	C	C

9.2.3 Wetland ecoservices

WET-EcoServices (Kotze et al. 2004) is a tool for evaluating the services provided by the watercourse and associated wetland. In general, the riverine wetland provides low-moderate ecosystem services (spider diagram right). Because of the destruction of natural vegetation and the resulting loss of habitat for insects and amphibians, it has a low species richness and biodiversity. (See **Figure 9-7**).

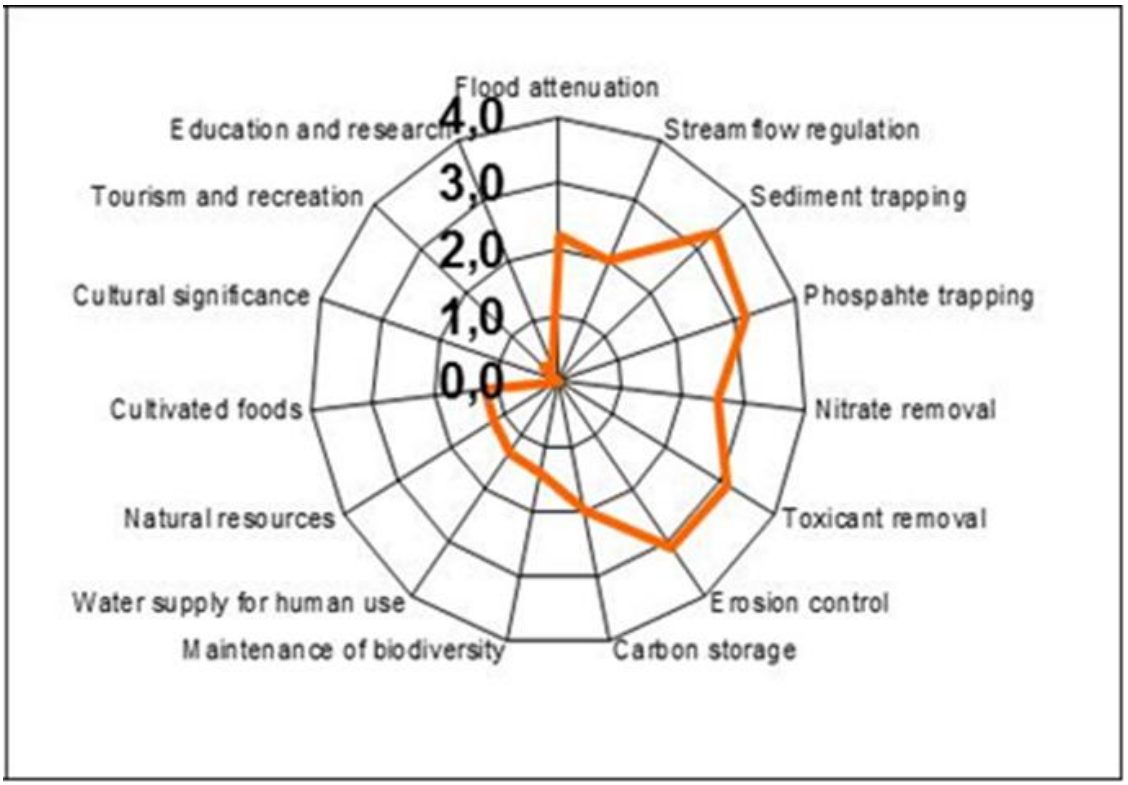

Figure 9-7: Eco services

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9.2.4 Freshwater Aquatic Species

The freshwater habitats (watercourses) onsite consist mainly of aquatic plant species. It is important to note that plants such as algae, reeds, and willow trees help keep the water clean by using their root systems to filter pollution and excess nutrients from the water. The watercourse has water and have fish. During the site inspection there was evidence of avifaunal species within the. The owner of the property indicated that the river has crocodiles and hippos' watercourses (**Figure 9-8**).

Figure 9-8:Typical Freshwater Habitat onsite with evidence of the *species that are common onsite*.

10. MITIGATION MEASURES

10.1.1 Sedimentation and soil erosion

Soil erosion will result in the deposition of sediment into the freshwater system, posing a risk to the downstream catchment geomorphological/functional integrity. Subsequent impacts that are likely to result are:

- sedimentation of the watercourse that will be destructive to many faunal species affecting their habitat; breeding and feeding cycles.

Local site factors such as soil erodibility, vegetation cover, gradient of local slopes and regional rainfall/runoff intensity will affect the probability and intensity of erosion impacts (Macfarlane *et al.*, 2014). Typical results of erosion & sedimentation on water resources may include:

- Localised scouring at stormwater discharge points into watercourses

- Deposition of large masses of sediment downstream causing localised channel braiding, instability of the riverbanks and alterations in water distribution.

10.1.2 Pollution of water resources and soil

Changes to the water quality will result in changes to the ecosystem structure and function as well as a potential loss of biodiversity. Water quality pollution leads to modification of the species composition where sensitive species are lost and organisms tolerant to environmental changes dominate the community structure. Any substances entering and polluting watercourses will directly impact downstream ecology through surface runoff during rainfall events, or subsurface water movement, particularly during the wetter summer months.

Contaminants such as hydrocarbons, solids, pathogens and hazardous materials may enter watercourses (examples include petrol/diesel, oil/grease, paint, cement/concrete and other hazardous substances). These contaminants negatively affect aquatic ecosystems including sensitive or intolerant species of flora and fauna. Where significant changes in water quality occur, this will ultimately result in a shift in aquatic species composition, favouring more tolerant species, and potentially resulting in the localised exclusion of sensitive species. Water quality monitoring must be implemented to ensure sustainable management of water sources within that area. Sudden drastic changes in water quality can also have chronic effects on aquatic biota leading to localised extinctions. Deterioration in water quality will also affect its suitability for human domestic/agricultural use and have far reaching impacts for local communities who may rely on rivers as water supply (Macfarlane et al., 2014).

10.1.3 Alien Invasive Species

There are alien invasive plant species currently present along the Road. Any ground disturbance provides an opportunity for alien invasive plant species to spread and for new species to establish themselves in the areas. Alien invader plant species pose an ecological threat as they alter habitat structure, lower biodiversity (both number and "quality" of species), change nutrient cycling and productivity, and modify food webs (Zedler & Kercher, 2004). Such changes on the ecology of the riparian habitat have/will have a detrimental impact on its ability to maintain both floral and faunal biodiversity. Invasive alien plant species, particularly woody species, have much increased water usage compared with indigenous vegetation. Many aliens invasive plant species are particularly found in riparian ecosystems and their invasion results in the destruction of indigenous species; increased inflammable biomass (high fire intensity); erosion; clogging of waterways such as small streams and drainage channels causing decreased river flows and incision of riverbeds and banks. This results in an overall impact on the hydrological functioning of the system.

10.1.4 Mitigation

The proposed upgrading of the road will have negative effects on the environment. The following mitigation measures may reduce the severity of impacts:

- Rehabilitation of the disturbed areas;
- Minimising pollutants entering the watercourse;
- Implement a programme for the clearing/eradication of alien species including long term control of such species;
- Wetland monitoring and biomonitoring must take place bi-annually.

Sedimentation and soil erosion

Mitigation options

- Do not allow surface water or stormwater to be concentrated, or to flow down cut or fill slopes without erosion protection measures being in place.
- Exposed soils must be rehabilitated as soon as practically possible to limit the risk of erosion. Erosion control measures must be employed where required.
- Riparian vegetation bordering on drainage lines, wetlands and rivers will be considered environmentally sensitive and impacts on these habitats should be avoided.
- If erosion has taken place, rehabilitation will commence as soon as possible.

Pollution of water resources and soil

Mitigation options

- Demarcate wetland areas to avoid unauthorised access.
- No washing of any equipment in close proximity to a watercourse is permitted.
- No releases of any substances that could be toxic to fauna or faunal habitats within the channels or any watercourses is permitted.
- Spillages of fuels, oils and other potentially harmful chemicals must be cleaned up immediately and contaminants properly drained and disposed of using proper solid/hazardous waste facilities (not to be disposed of within the natural environment). Any contaminated soil must be removed, and the affected area rehabilitated immediately.
- Education of workers is key to establishing good pollution prevention practices. Training programs must provide information on material handling and spill prevention and response, to better prepare employees in case of an emergency.
- Signs should also be placed at appropriate locations to remind workers of good housekeeping practices including litter and pollution control.
- The proper storage and handling of hazardous substances (hydrocarbons and chemicals) needs to be ensured. All employees handling fuels and other hazardous materials are to be properly trained. Storage containers must be regularly inspected so as to prevent leaks.

- All contractors and employees should undergo induction which is to include a component of environmental awareness.

Alien Invasive Species

Mitigation Options

- Ongoing alien plant control must be undertaken, particularly in the disturbed areas as these areas will quickly be colonised by invasive alien species, especially in the riparian zone, which is particularly sensitive to AIP infestation.
- Herbicides must be carefully applied, in order to prevent any chemicals from entering the river. Spraying of herbicides within or near to the wetland areas is strictly forbidden.
- Re-instate indigenous vegetation (grasses and indigenous trees) in disturbed areas.
- After rehabilitation, re-vegetate any exposed surfaces and mulch re-vegetated areas.
- Select appropriate species for wetland and terrestrial areas and ensure species diversity is enhanced, with species commonly found in the natural wetland area.

10.2 ASSESSMENT OF THE NO-GO ALTERNATIVE

Currently there is no proposal from a wetland point of view of a no-go alternative, Since the road is already in existence.

10.3 MONITORING REQUIREMENTS

In the event that the proposed lodge expansion activities will encroach on the watercourses/wetland, the following is strongly advised from a wetland point of view:

- It is strongly advised that a wetland/aquatic specialist is appointed during the construction, operational and decommissioning phases to monitor impacts and related mitigation measures regarding wetlands and the faunal and floral assemblages occurring in this habitat.
- If the no-go alternative is enforced no monitoring is advised at this stage.

11. FINAL COMMENTS

The aquatic sensitivity of the proposed site is classified as VERY HIGH in the Screening Report. The study site falls under the Olifants Water Management Area (WMA), and the existing Kurhula Lodge is located within 500m of the Olifants River. Taking into consideration the sensitivity of the development footprint, sensitive features identified by the Screening Tool, the results from the baseline biodiversity and ecosystem of the site, which was verified by a site visit, it can be concluded that the proposed development footprint is of Medium sensitivity for the Aquatic Biodiversity Theme. Provided that all the management outcomes are adhered to, this Compliance Statement is considered sufficient to meet the requirements for authorisation under the Aquatic Biodiversity Theme Minimum requirements.

The proposed development is with the regulated area of area of watercourse and wetland thus a General Authorisation will be required for the proposed activities. However, the proposed development will have little to no impact on the functioning of the watercourses in the regulated area. It is recommended that a motivation to exclude the development from requiring a Water Use License (via a General Authorisation) be provided to the Department of Water and Sanitation.

12. RECOMMENDATIONS

- Include environmental awareness aspects into the site induction program to ensure all staff are aware of the location and importance of wetland habitats.
- Establish emergency response measures and a clearly defined chain of communication to rapidly deal with any unforeseen impacts to wetlands, e.g. spills.
- No stockpiling of material may take place within the wetland/watercourse areas and temporary construction camps and infrastructure should also be located outside the wetland footprint.
- Regular cleaning up of the wetland areas should be undertaken to remove litter.
- Design and implement a construction stormwater management plan that aims to minimise the concentration of flow and increase in flow velocity, as well as minimising sediment transport off site.
- Where practically possible, the major earthworks should be undertaken during the dry season (roughly from April to August) to limit erosion due to rainfall runoff.
- Store and handle potentially polluting substances and waste in designated, bunded facilities.
- Waste should be regularly removed from the construction site by suitably equipped and qualified operators and disposed of in approved facilities.
- Locate temporary waste and hazardous substance storage facilities a minimum of 100m from any wetland edge.
- Keep sufficient quantities of spill clean-up materials on site.

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APPENDIX H3 – HERITAGE ASSESSMENT REPORT

Shasa Heritage Consultants

HERITAGE SCOPING REPORT FOR THE KURHULA LODGE EXPANSION ON PARSONS 155 KT, MICA/HOEDSPRUIT, LIMPOPO PROVINCE

FIELDWORK: F.E. ROODT

REPORT COMPILED BY: F .E.. ROODT and L STEGMANN

PRINCIPAL INVESTIGATOR: F ROODT

DATE: 31 March 2025

Heritage consultant
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CONTENTS

EXECUTIVE SUMMARY

Earthlink Environmental Services contracted the author to survey the proposed area for development and produce a scoping report for a Phase 1 heritage study to advise on potential impacts and mitigation measures. The proposed development has already partially occurred and is planned to be extended and upgraded, known as Kurhula Lodge and is located on the farm Parson 155 KT, Limpopo Province, 20 km north east of Hoedspruit along the Olifants River.

Project parameters for the extension:

- 2 new guest cottages added to the site. Total 6 guest cottages, with the new additions
- a new manager's cottage that will have two bedrooms in one cottage.
- the existing staff shed will be enlarged to accommodate a new working force that will have six rooms and twelve beds with workers sharing a room.
- the existing ranger's lodge will be upgraded to a 4 bedrooms
- pathways and walkways are existing and graveled

No graves, marked or unmarked, no heritage remains or socio-religious areas were recorded during survey. Areas around the development were surveyed to ensure that no heritage remains were impacted during development.

From a heritage resources point of view, we have no objection to the development taking place.

Earthlink Environmental Services

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the right to amend aspects of the report including the recommendations if and when new information becomes available.

Although Shasa Heritage Consultants endeavors to provide diligent and accurate reporting, Shasa Heritage Consultants accepts no liability, and the client, by receiving this document, indemnifies Shasa Heritage Consultants against all actions, claims, demands, losses, liabilities, costs, damages and expenses arising from or in connection with services rendered.

DECLARATION OF INDEPENDENCE
This report has been compiled by Mr FE Roodt and Ms L Stegmann, sub-contracted by Earthlink Environmental Services, South Africa. The views expressed in this report are entirely those of the author/s and no other interest was displayed during the decision making process for this Project.

Specialist: Mr FE Roodt

Signature: 

EXPERTISE OF SPECIALIST
The Heritage Consultant: Mr FE Roodt
Qualifications: BA Hon Archaeology
Experience: >20 years heritage studies and over 400 projects completed

1. INTRODUCTION AND TERMS OF REFERENCE

Application purpose: Application for an existing lodge and addition thereto

Area: Hoedspruit

Size: <2ha

GPS:
S24º 09' 59.4" E30º 55' 43.6"
S24º 09' 57.1" E30º 55' 48.0"
S24º 09' 58.9" E30º 55' 51.1"
S24º 10' 01.6" E30º 55' 45.6"

Map reference number: 2431 AB

This report will enable the Applicant to take pro-active measures to limit the adverse effects that the development could have on heritage resources.

In terms of the National Heritage Resources Act (1999) the following is of relevance:

Historical remains

Section 34(1) No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

Archaeological remains

Section 35(4) No person may, without a permit issued by the responsible heritage resources authority-

(a) destroy, damage, excavate, alter, deface, or otherwise disturb any archaeological or palaeontological site or any meteorite

Burial grounds and graves

Section 36 (3)(a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

(c) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(b) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in detection or recovery of metals.

Culture resource management

Section **38(1)** Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development* …

must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature, and extent of the proposed development.

***'development'** means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including-

(a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
(b) carry out any works on or over or under a place*****;
(e) any change to the natural or existing condition or topography of land, and
(f) any removal or destruction of trees, or removal of vegetation or topsoil;

"place** means a site, area or region, a building or other structure** ..."

***"structure** means any building, works, device or other facility made by people and which is fixed to the ground, …"

2. METHOD

2.1 Sources of information and methodology

The source of information was primarily the field reconnaissance and referenced literary sources.

A pedestrian survey of the area was undertaken by Mr FE Roodt on 23 March 2025 in the early morning, during which standard methods of observation were applied. Special attention given to any areas displaying soil and or vegetative changes, as well as areas considered to yield potential heritage resources. As most archaeological material occurs in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as burrowing animals and erosion. Locations were marked using Google map drop pin technology, correct to 3 meters.

Survey map below, document survey paths taken by the fieldworker.

Map 1. Survey path in white

2.2 Limitations

The scoping survey was thorough, but limitations were experienced due to the fact that archaeological sites are subterranean and only visible when disturbed. Vegetation was sparse to moderate, visibility was fair. Access to area due to wild animals is fairly limited.

2.2 Categories of significance

The significance of archaeological sites is ranked into the following categories.

Significance rating	Action required
Not protected	1a. No action required
Low	2a. Recording and documentation (Phase 1) of site adequate; no further action required 2b. Controlled sampling (shovel test pits, auger sampling), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction
Medium	3. Excavation of representative sample, 14C dating, mapping and documentation (Phase 2 investigation); permit required for sampling and destruction [including 2a & 2b]
High	4a. Nomination for listing on Heritage Register (National, Provincial or Local) (Phase 2 & 3 investigation); site management plan; permit

	required if utilised for education or tourism 4b. Graves: Locate demonstrable descendants through social consulting; obtain permits from applicable legislation, ordinances and regional by-laws; exhumation and reinternment [including 2a, 2b & 3]

Level	Details	Action
National (Grade 1)	Site is considered to be of National Significance	Nominated to be declared by by SAHRA
Provincial (Grade 2)	Site is considered to be of Provincial Significance	Nominated to be declared by Provincial Heritage Authority
Local Grade 3A	Site is considered to be of HIGH significance locally	Site should be retained as a heritage site
Local Grade 3B	Site is considered to be of HIGH significance locally	The site should be mitigated and part retained as a heritage site
Generally Protected A	High to Medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	Site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording before destruction

The above colour coding's will be used in the results of the survey section (4)

The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

A crucial aspect in determining the significance and protection status of a heritage resource is often whether or not the sustainable social and economic benefits of a proposed development outweigh the conservation issues at stake. Many aspects must be taken into consideration when determining significance, such as rarity, national significance, scientific importance, cultural and religious significance, and not least, community preferences. When, for whatever reason the protection of a heritage site is not deemed necessary or practical, its research potential must be assessed and mitigated in order to gain data / information which would otherwise be lost. Such sites must be adequately recorded and sampled before being destroyed. These are generally sites graded as of low or medium significance.

2.4 Terminology

Early Stone Age: Predominantly the Acheulean hand axe industry complex dating to + 1Myr yrs – 250 000 yrs. before present.

Middle Stone Age: Various lithic industries in SA dating from ± 250 000 yr. - 30 000 yrs. before present.

Late Stone Age: The period from ± 30 000-yr. to contact period with either Iron Age farmers or European colonists.

Early Iron Age: Most of the first millennium AD

Middle Iron Age: 10th to 13th centuries AD

Late Iron Age: 14th century to colonial period. *The entire Iron Age represents the spread of Bantu speaking peoples.*

Historical: Mainly cultural remains of western influence and settlement from AD1652 onwards – mostly structures older than 60 years in terms of Section 34 of the NHRA, though more recent remains can be termed historically significant should the remains hold social significance for the local community.

Phase 1 assessment: Scoping surveys to establish the presence of and to evaluate heritage resources in a given area

Phase 2 assessments: In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling is required.

Sensitive: Often refers to graves and burial sites although not necessarily a heritage place, as well as ideologically significant sites such as ritual / religious places. *Sensitive* may also refer to an entire landscape / area known for its significant heritage remains.

3. DESCRIPTION OF THE PROPOSED DEVELOPMENT AND TERRAIN

Vegetation: Lowveld Granite (Mucina et al. 2006)

Geology: Swazian Goudplaats Gneiss, Makhutswi Gneiss and Nelspruit Suite (granite gneiss and migmatite)

Terrain: The terrain is gently undulating, the development has already occurred and located on the banks of the Olifants River.

Proposed development: Lodge expansion

Fig 1: View of area

Fig 2. View of area

Fig 3. View of area

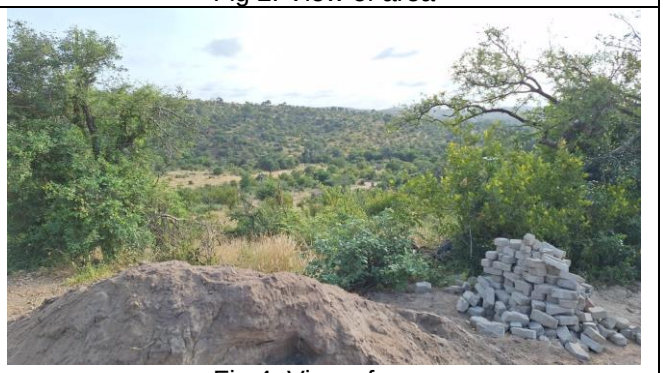


Fig 4. View of area

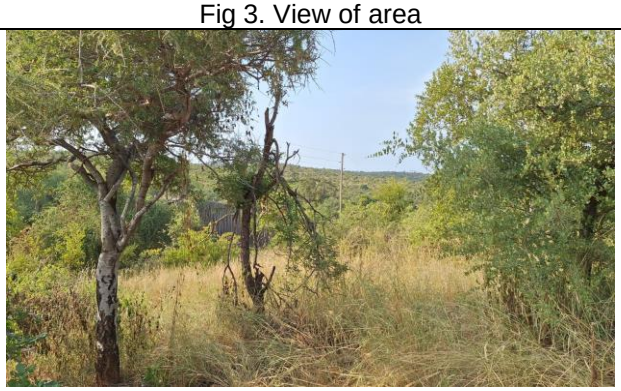


Fig 5. View of area

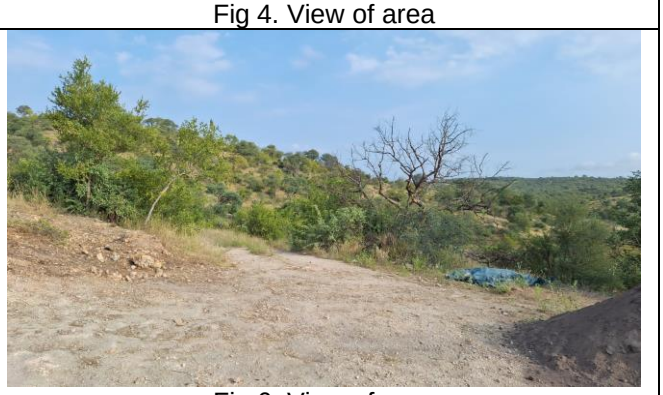


Fig 6. View of area

4. RESULTS OF THE SCOPING SURVEY AND DISCUSSION

4.1 SOCIAL and/or RELIGIOUS INTANGIBLE HERITAGE

No areas designated for socio-religious activities were recorded on any of the surveyed areas

Significance: None – no further action required

4.2 HISTORICAL PERIOD AND BUILT ENVIRONMENT

No remains from the historical period were recorded on any of the surveyed areas. In terms of built environment- only the partial lodge was noted.

Significance: None – no further action required

Generally, the Limpopo province was settled by Voortrekkers during the mid-1800's, spreading throughout the modern Limpopo province. Many of the African kingdoms had been deeply impacted on by the Mfecane invasions, this ultimately allowed for extensive colonial and Afrikaaner settlement in the area.

4.3 GRAVES

No formal or informal graves could be identified, on any of the sites.

Significance: None – no further action required

4.4 IRON AGE REMAINS

According to the most recent archaeological cultural distribution sequences by Huffman (2007), this area falls within the distribution area of various cultural groupings originating out of both the Urewe Tradition (eastern stream of migration) and the Kalundu Tradition (western stream of migration). The facies that may be present are:

Urewe Tradition: Kwale branch- Silver Leaves *facies* AD 280-450 (Early Iron Age)
Mzonjani facies AD 450 – 750 (Early Iron Age)
Moloko branch- *Icon facies* AD 1300 - 1500 (Late Iron Age)

Kalundu Tradition: Happy Rest sub-branch - *Doornkop facies* AD 750 - 1000 (Early Iron Age)
Letaba facies *AD 1600 - 1840 (Late Iron Age)*

From around the 5th Century, proto-Bantu speakers began entering the Limpopo area, an area occupied by hunter-gatherers. In general, these farming communities settled on foothills and in valley sections. Mainly they belonged to the Urewe tradition and Kgwale Branch (Huffman 2007). Later people from the eastern stream Kalundu groups entered the area.

Generally, these communities prospered until the advent of the Mfecane (Difacane) when Mazilikazi swept through the area during the early 1800's. This resulted in displaced and ravaged communities.

Significance: None – no further action required

4.5 STONE AGE REMAINS

No Stone Age remains were recorded.

The below mentioned is generic background to the area adapted from Deacon and Deacon: 1999:

The Stone Age covers most of southern Africa and the earliest consist of the Oldowan and Acheul artefacts assemblages. Oldowan tools are regularly referred to as “choppers”. Oldowan artefacts are associated with Homo *habilis*, the first true humans. In South Africa definite occurrences have been found at the sites of Sterkfontein and Swartkrans. Here they are dated to between 1.7 and 2 million years old. This was followed by the Acheulian technology from about 1.4 million years ago which introduced a new level of complexity. The large tools that dominate the Acheulian artefact assemblages range in length from 100 to 200 mm or more. Collectively they are called bifaces because they are normally shaped by flaking on both faces. In plain view they tend to be pear-

shape and are broad relative to their thickness. Most bifaces are pointed and are classified as handaxes, but others have a wide cutting end and are termed cleavers. The Acheulian design persisted for more than a million years and only disappeared about 250 000 years ago.

The change from Acheulian with their characteristic bifaces, handaxes and cleavers to Middle Stone Age (MSA), which are characterized by flake industries, occurred about 250 000 years ago and ended about 30 000 – 22 000 years ago. For the most part the MSA is associated with modern humans; Homo sapiens. MSA remains are found in open spaces where they are regularly exposed by erosion as well as in caves. Characteristics of the MSA are flake blanks in the 40 – 100 mm size range struck from prepared cores, the striking platforms of the flakes reveal one or more facets, indicating the preparation of the platform before flake removal (the prepared core technique), flakes show dorsal preparation – one or more ridges or arise down the length of the flake – as a result of previous removals from the core, flakes with convergent sides (laterals) and a pointed shape, and flakes with parallel laterals and a rectangular or quadrilateral shape: these can be termed pointed and flake blades respectively. Other flakes in MSA assemblages are irregular in form.
The change from Middle Stone Age to Later Stone Age (LSA) took place in most parts of southern Africa little more than about 20 000 years ago. It is marked by a series of technological innovations or new tools that, initially at least, were used to do much the same jobs as had been done before, but in a different way. Their introduction was associated with changes in the nature of hunter-gatherer material culture. The innovations associated with the Later Stone Age "package" of tools include rock art – both paintings and engravings, smaller stone tools, so small that the formal tools less that 25mm long are called microliths (sometimes found in the final MSA) and Bows and arrows. Rock art is an important feature of the LSA and is abundant in the Waterberg and the Makgabeng.

Significance: None – no further action required

4.6 PALAEONOTOLOGICAL SENSITIVITY

The area lies within the grey zone on SAHRIS map and thus no PIA is required. Underlying geology is not conducive to fossils, due to the base rock being igneous.

5. BACKGROUND ON THE AREA

Personal experience in the area has been within a 40km radius of the town of Hoedspruit, where a low frequency of recorded archaeological materials has been recorded. Of late the author has conducted multiple surveys for similar lodges, which typically are near the rivers, where archaeologically people would not have lived due to possible threat of seasonal flooding. The area also used to be a malaria area.

6. EVALUATION AND STATEMENT OF SIGNIFICANCE

6.1	Significance	Rating
1	The importance of the cultural heritage in the community or pattern of South Africa's history (Historic and political significance)	None
2	Possession of uncommon, rare or endangered aspects of	None

	South Africa's natural or cultural heritage (Scientific significance).	
3	Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage (Research/scientific significance	None
4	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects (Scientific significance)	None
5	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance)	None
6	Importance in demonstrating a high degree of creative or technical achievement at a particular period (Scientific significance)	None
7	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Social significance)	None
8	Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance)	None
9	The significance of the site relating to the history of slavery in South Africa.	None

6.2 Section 38(3) (c) An assessment of the impact of the development on such heritage resources.

No resources were identified and the lodge has primarily been constructed.

6.3 ***Section 38(3) (d) An evaluation of the impact of the development on heritage resources relative to the sustainable economic benefits to be derived from the development***.

None- Lodge primarily built and no heritage resources were recorded.

6.4 ***Section 38(3) (e) The results of consultation with the communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***.

Social consultative process is ongoing as part of EIA.

6.5 Section 38(3)(f) If heritage resources will be adversely affected by the proposed development the consideration of alternatives.

No heritage resources identified and no alternative was proposed.

6.6 Section 38(3)(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.

No adverse effects, as no heritage resources were recorded.

Impact significance and potential impacts are determined using the following:

Nature		
A brief description of the impact of the heritage parameter being assessed in the context of the specific border delineated project. Criteria, includes a brief written statement of the heritage aspect being impacted upon by a particular action or activity.		
Topographical Extent		
This is defined as the area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment of a project in terms of further defining the determined.		
1	Site	Impact limited to site
2	Local/District	Impact limited to district
3	Province/Region	Impact will affect region
4	International/National	Impact is on a national or international scale
Probability		
The probability of the impact occurring		
2	Unlikely	The chance of the impact occurring is extremely low (Less than 25% chance of occurrence).
4	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
6	Probable	The impact will likely occur (Between 50% to 75% chance of occurrence).
8	Definite	Impact will certainly occur (Greater than 75% chance of occurrence).
Reversibility		
The degree to which the impact on heritage resources can be reversed after the activity has been completed		
1	Completely reversible	The impact is reversible with minor mitigation measures.
2	Partly reversible	The impact is partly reversible but more intense mitigation measures will be required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible regardless of mitigation measures.
Permanent loss of heritage resources		
The degree to which heritage resources will be lost as a result of proposed activity. This applies to destruction of the context of the resource, as excavation could preserve objects but not context.		
1	No loss of resource	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of any resources.
3	Severe loss of resource	The impact will result insignificant loss of resources.
4	Complete loss of resource	The impact is result in a complete loss of all resources.

Duration		
The duration of the impact on the heritage parameter. Duration indicates the lifetime of a result of the proposed activity.		
1	Short	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in span shorter than the construction phase (0-1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0-2 years).
2	Medium	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2-10 years).
3	Long	The impact and its effects will continue or last for entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10-50 years).
4	Permanent	The only class of the impact that will non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).
Cumulative effect		
The cumulative effect of the impacts on the heritage resource. A cumulative effect/impact is an effect, which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from similar or diverse activities as a result of the project activity in question.		
1	Negligible Cumulative Impact	The impact would result in negligible to no cumulative effects.
2	Low Cumulative Impact	The impact would result in insignificant cumulative effects
3	Medium Cumulative Impact	The impact would result in minor cumulative effects
4	High Cumulative Impact	The impact would result in significant cumulative effects.
Magnitude		
The severity of the impact- it must be considered that once a heritage resource is removed from its original context much of its significance is lost.		
1	Low	Impact affects the quality, use and integrity of the Heritage resource in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the heritage resource but heritage resource still continues and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the heritage resource and the quality, use, integrity

		and context of heritage resource is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very High	Impact affects the continued viability of the heritage resource and the quality, use, integrity and context of the heritage resource permanently ceases and is irreversibly impaired. Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation. This would involve a destruction permit or reconstruction- essentially losing the essence of what made the resource significant in the first place.
Significance		
It provides an indication of the importance of the impact in terms of both tangible and intangible characteristics. (S) is formulated by adding the sum of numbers assigned to Topographical effect (E), Duration (D), and Magnitude (M) and multiplying the sum by the Probability. S= (E+D+M) P		
<30	Low	Mitigation of impacts is easily achieved where this impact would not have a direct influence on the decision to develop in the area.
30-60	Medium	Mitigation of impact is both feasible and fairly easy. The impact could influence the decision to develop in the area unless it is effectively mitigated.
>60	High	Significant impacts where there is difficult. The impact must have an influence on the decision process to develop in the area.

Impact and rating

Impact	Rating
Nature	Lodge expansion
Topographical effect	1- limited to site
Reversibility	2
Permanent loss of heritage resources	1
Cumulative effect	1
Duration	2
Magnitude	1
Probability	2
Significance S= (E+D+M) P	1+2+1 x2 =8 The area is considered of low significance
Mitigation	None- lodge is already partially built

7. RECOMMENDATIONS

The following is recommended:

1. Should the area be widely extended in the future, an assessment would be required.

The discovery of previously undetected subterranean heritage remains on the terrain must be reported to the Limpopo Heritage Authority or the archaeologist, and may require further mitigation measures.

8. BIBLIOGRAPHY

Deacon, HJ and Deacon, J. 1999. *Human Beginnings in South Africa. Uncovering the Secrets of the Stone Age.* David Philip Publishers. Cape Town & Johannesburg.

Huffman, T.N. 2007. *Handbook to the Iron Age. The Archaeology of Pre-colonial Farming Societies in Southern Africa.* University of KwaZulu-Natal Press.

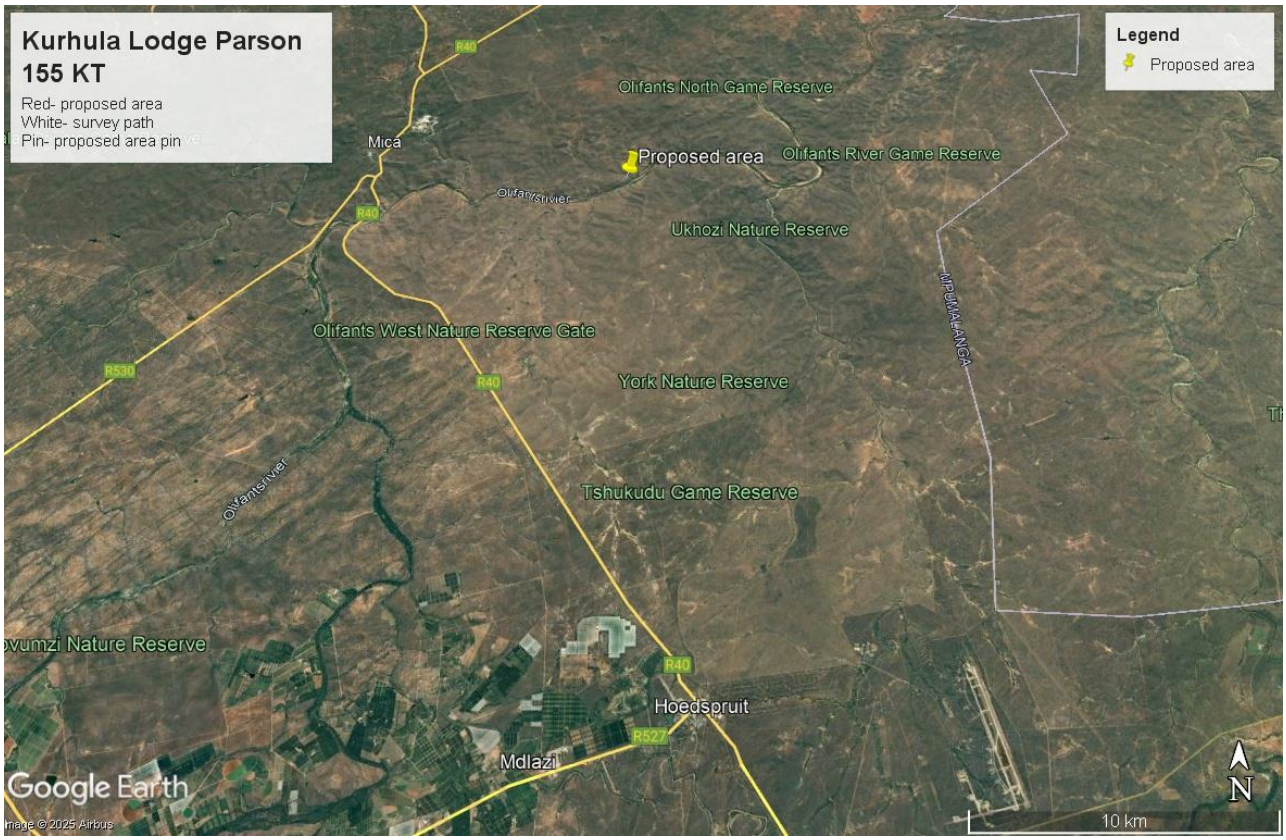
Mucina, L and Rutherford, M.C. 2006. *The Vegetation of South Africa, Lesotho and Swaziland.* South African National Biodiversity Institute, Pretoria.

SAHRIA website for reports in immediate area

Frans E Roodt
BA Hons Archaeology Unisa,

FRANS ROODT (*BA Hons, MA Archaeology, Post Grad. Dip. Museology; UP*)
Principal Investigator for SHASA Heritage Consultants

Map 2. Google map close view of proposed development area



Map 3. Proposed area in relation to wider geography

APPENDIX I: EAP DECLARATION AND CV

Environmental Assessment Practitioners Association of South Africa

Registration No. 2019/1567

Herewith certifies that

LEHLOGONOLO CHUENE

is registered as an

Environmental Assessment Practitioner

Registered in accordance with the prescribed criteria of Regulation 15. (1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Effective: 01 March 2025

Expires: 31 March 2026

Chairperson

Registrar

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

Begonia Street, Rustic Estates, Tzaneen, 0850
Email: pmachethe31@gmail.com
Cell: 067 212 4095/ 082 552 0299

CURRICULUM VITAE OF LEHLOGONOLO PRUDENCE CHUENE

Professional: Environmental Assessment Practitioner (EAPASA Reg. no: 2019/1567)
Key Qualifications: MSc. Of Science (Specialising in Waste Management), BSc. (Hons) Environmental Studies and BSc. Environmental & Resource Studies
Specialisation: Environmental Impact Management, Water Use Management, Environmental Compliance monitoring, Environmental planning, Public and Stakeholder Engagements and GIS.
Work Experience: 10 years' experience in the Environmental Management Field

CV SUMMARY

Registered Environmental Assessment Practitioner (EAPASA) with over 10 years of experience in environmental management, compliance, and waste management. Holds a Master of Science in Geography and Environmental Science with expertise in environmental compliance, risk management, stakeholder engagement, and environmental data analysis.

Proven ability to implement Environmental Management Systems (ISO 14001), oversee environmental monitoring and compliance audits, and manage significant environmental risks in mining and industrial sectors. Strong background in SAP system usage, contractor management, and legal compliance. Adept in GIS applications (ArcGIS, QGIS) for environmental data collection and analysis.

CORE COMPETENCIES

- Environmental Impact Assessment (EIA) & Compliance Monitoring
- Environmental Risk Management & Compliance Audits
- ISO 14001 Environmental Management Systems Implementation
- Waste Management & Pollution Control
- Water Use Licensing (WUL) & Environmental Permitting
- Contractor & Stakeholder Management
- Data Collection, Trend Analysis & Reporting
- Environmental Training & Awareness Campaigns
- Legal & Regulatory Compliance (Environmental Legislation)

EDUCATION

Completed Qualifications:

- Master of Science in Geography and Environmental Science – University of Limpopo *(Graduating April 11, 2025)*
- BSc. (Hons) in Geography – University of Limpopo (2014)
- BSc. Environmental & Resource Studies – University of Limpopo (2013)

Certifications & Training:

- Integrated Water Resource Management (IWRM) & Water Use Authorizations – Carin Bosman Sustainable Solutions
- ISO 14001 Environmental Management Systems Training (In Progress)

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PROFESSIONAL AFFILIATIONS

- Environmental Assessment Practitioners Association of South Africa (EAPASA) – Registered Practitioner
- South African Council for Natural Scientific Professions (SACNASP) – Registration in Progress

PROFESSIONAL EXPERIENCE

Position	Company	Duration	Key Responsibilities
Senior Environmental Assessment Practitioner	E-Science Associates (Pty) Ltd	Sept 2022 – February 2025	• Lead environmental compliance and risk management. • develop Environmental Management Programs (EMPrs) • conduct EIAs and WULAs • environmental monitoring, facilitate stakeholder engagements • oversee GIS-based mapping and • environmental training.
Senior Environmental Assessment Practitioner	Savannah Environmental Planning (Pty) Ltd	March 2022 – Sept 2022	• Conducted environmental compliance audits, • Led environmental risk assessments • managed Water Use License Applications (WULAs) and EIAs, and • contributed to environmental tool management and system improvements.
Senior Environmental Consultant	Polygon Environmental Planning (Pty) Ltd	July 2017 – March 2022	• Managed full-scale EIAs and compliance monitoring, • oversaw contractor environmental management, • facilitated license applications, and • provided legal compliance guidance.
Environmental Facilitator (War on Leaks Project)	Mthengenya and Associates	Oct 2016 – July 2017	• Managed and trained 30 water agents, • facilitated lectures on water conservation and demand management, and • assessed trainee portfolios.
Environmental Educator	Wildlife and Environmental Society of Southern Africa	March 2016 – Sept 2016	• Led environmental awareness programs for schools, • managed environmental camps, and • ensured safety compliance.
Environmental Awareness Intern	Limpopo Department of Economic Development, Environmental & Tourism	April 2015 – Feb 2016	• Conducted environmental education at schools and communities, • developed environmental reading materials, and • assisted in green municipality assessments.

Begonia Street, Rustic Estates, Tzaneen, 0850
Email: pmachethe31@gmail.com
Cell: 067 212 4095/ 082 552 0299

TECHNICAL SKILLS

- **Software & Tools:** ArcGIS and MS Office Suite
- **Regulatory Compliance:** National Environmental Management Act (NEMA), Water Act, Waste Act, ISO 14001
- **Data Collection & Analysis:** Trend evaluation, performance tracking, GIS mapping
- **Languages:** Fluent in English, Sepedi, Tshi-Venda, Xi-Tsonga and IsiZulu

ADDITIONAL INFORMATION

- **Driver's License:** Valid EB/Code 8
- **Availability:** Immediate/Notice Period
- **References:** Available upon request

APPENDIX J: SPECIALIST DECLARATION

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	
NEAS Reference Number:	
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014

PROJECT TITLE

Proposed Expansion of Kurhula Lodge Near Hoedspruit, Maruleng Local Municipality Within The Mopani District Municipality, Limpopo Province

Specialist:	Heritage Scoping Report For The Kurhula Lodge Expansion On Parsons 155 Kt, Mica/Hoedspruit, Limpopo Province		
Contact person:	F.E. Roodt		
Field of Specialisation:	Archaeology		
Physical Address:	54 Wildebeestfontein Polokwane		
	Code		
Postal address:	46 Burger Street Polokwane		
Postal code:		**Cell:**	0786186204
Telephone:		**Fax:**	
E-mail:	shasaheritageconsultants@gmail.com		
Professional affiliation(s) and registration number (if any)			

Name of the Environmental Assessment Practitioner (EAP):	Ms. Lehlogonolo Chuene		
Company Name:	Earthlink Environmental Consultants		
Postal address:	55 Van Der Walt Road, Dalview,Brakpan		
Postal code:	1541	**Cell:**	071 878 8295
Telephone:		**Fax:**	
E-mail:	renoloholdings@gmail.com		

I, Frans Ellington Roodt ,, declare that --

General declaration:

- I act as the independent specialist in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority; and
- All the particulars furnished by me in this form are true and correct.

Signature of the specialist:

Name of company (if applicable):

02/04/2025

Date:

7764177-CST
Opsurdan

Signature of the Commissioner of Oaths for project/application:

2025-04-02

Date:

CST

Designation:

Official stamp (below)

SUID-AFRIKAANSE POLISIE DIENSE
WESTENBURG
01 APR 2025
FINANCE
SOUTH AFRICAN POLICE SERVICE