

**Application for Environmental Authorisation for
Proposed Development of a Health Spa at the existing Bakubung Lodge, Pilanesberg
Game Reserve**

Reference Number NWP/EIA/29/2014

FINAL BASIC ASSESSMENT REPORT

Compiled by:



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On behalf of:

PILANESBERG RESORTS

November 2014

This is the Final Basic Assessment Report.

Compliance Authorities/ Organs of State and Interested and Affected Parties were invited to comment on the Draft Basic assessment Report from the 23 September 2014 to the 27 October 2014.

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(For official use only)

File Reference Number:
Application Number:
Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
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. An incomplete report may be returned to the applicant for revision.
5. 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 competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

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

NO

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

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

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

Construction of a Health Spa facility, housed in a single building, at the existing Bakubung Lodge, in the Pilanesberg Game Reserve. All services and utilities (i.e. potable water, electricity, communications, sewage and waste) will be provided as an extension of the existing Bakubung Lodge systems.

Three alternative sites are under consideration. Access will be via existing roads for all Alternative sites. Alternative sites S1 and S2 will not require any additional roads, but Alternative site S3 will require a new access road of approximately 100m (along an existing service track).

For alternative sites S1 and S2, the perimeter fence will need to be moved to accommodate the facility.

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 competent authority 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.

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.

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 and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Alternative:

Alternative S1² (preferred alternative)

Alternative S2

Alternative S3

Latitude (S):		Longitude (E):	
25°	20'45.41"	27°	3'15.14"
25°	20'45.31"	27°	3'14.71"
25°	20'29.60"	27°	3'31.18"

In the case of linear activities:

Alternative:

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

Latitude (S):		Longitude (E):	
o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'

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:

Alternative A1³ (preferred alternative)

Alternative A2

Alternative A3

Size of the activity:
324 m ²

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

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

or, for linear activities:

Alternative:

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

Length of the activity:

m
m
m

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

Size of the site/servitude:

Alternative:

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

m ²
m ²
m ²

5. SITE ACCESS

Alternative S1 (Preferred Alternative)

Does ready access to the site exist?

YES	<input type="checkbox"/>
m	

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

Describe the type of access road planned:

Access to the site is via the Bakubung Gate. Bakubung Gate is easily accessible from the R565 to the Pilanesberg Game Reserve, and from Bakubung Gate, an existing road gives access to the Lodge. No additional access road is required as the site lies off the existing road.

Alternative S2

Does ready access to the site exist?

YES	<input type="checkbox"/>
m	

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

Describe the type of access road planned:

Access to the site is via the Bakubung Gate. Bakubung Gate is easily accessible from the R565 to the Pilanesberg Game Reserve, and from Bakubung Gate, an existing road gives access to the Lodge. No additional access road is required as the site lies off the existing road.

Alternative S3

Does ready access to the site exist?

YES	<input type="checkbox"/>
m	

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

Describe the type of access road planned:

Access to the site is via the Bakubung Gate. Bakubung Gate is easily accessible from the R565 to the Pilanesberg Game Reserve, and from Bakubung Gate, an existing road gives access to the Lodge. A short stretch (i.e. less than 100m) of additional access road is required as the site lies a short distance away from the main road. This access road will follow the alignment of an existing service road, and will be paved as per other roads within the lodge.

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

6. SITE OR ROUTE PLAN

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

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;*
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;*
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;*
- 6.4 the exact position of each element of the application as well as any other structures on the site;*
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;*
- 6.6 all trees and shrubs taller than 1.8 metres;*
- 6.7 walls and fencing including details of the height and construction material;*
- 6.8 servitudes indicating the purpose of the servitude;*
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):*
 - rivers;*
 - the 1:100 year flood line (where available or where it is required by DWA);*
 - 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.*

Refer to Appendix A.

7. SITE PHOTOGRAPHS

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

Refer to Appendix B.

8. FACILITY ILLUSTRATION

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

Refer to Appendix C.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

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

R 4.5 million

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

R 1.8 million

Will the activity contribute to service infrastructure?

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

Is the activity a public amenity?

YES	<input type="checkbox"/>
-----	--------------------------

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

30

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

R500 000

What percentage of this will accrue to previously disadvantaged individuals?

90 %

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

8

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

R 6.18 million

What percentage of this will accrue to previously disadvantaged individuals?

70 %

9(b) Need and desirability of the activity

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

NEED:		
1.	Was the relevant provincial planning department involved in the application?	YES <input type="checkbox"/>
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES <input type="checkbox"/>
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:	

DESIRABILITY:		
1.	Does the proposed land use / development fit the surrounding area?	YES <input type="checkbox"/>
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES <input type="checkbox"/>
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES <input type="checkbox"/>
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:	
5.	Will the proposed land use / development impact on the sense of place?	<input type="checkbox"/> NO
6.	Will the proposed land use / development set a precedent?	<input type="checkbox"/> NO
7.	Will any person's rights be affected by the proposed land use / development?	<input type="checkbox"/> NO
8.	Will the proposed land use / development compromise the "urban edge"?	<input type="checkbox"/> NO

9.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.

BENEFITS:	
1.	Will the land use / development have any benefits for society in general? YES
2.	<p>Explain:</p> <p>The development of a Health Spa at the Bakubung Lodge represents an additional tourism amenity, and as such, an additional attraction for tourists into the area. This is beneficial both for the tourists, who now have a wider range of amenities at their disposal, and for the local economy, which will enjoy an increase in local revenue. The Pilanesberg Game Reserve will benefit through an increase in visitors (as some may wish to frequent the spa specifically) and the local community may benefit through local SMME development (specifically crafts), which often accompanies an increase in tourism.</p> <p>Indirectly, the improvement and expansion of tourism infrastructure in South Africa improves the image of the country as a destination.</p>
3.	Will the land use / development have any benefits for the local communities where it will be located? YES
4.	<p>Explain:</p> <p>The proposed development will create employment opportunities during the construction phase, specifically for local communities in the Pilanesberg area. 30 jobs are anticipated, of which a large portion will be low and semi-skilled with the opportunity of skills development and on-site training.</p>

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:

Constitution of Republic of South Africa (108 of 1996):	National Government	1996
Conservation of Agricultural Resources (Act 43 of 1983):	National Department of Agriculture	1983
National Environmental Management Act (Act No. 107 of 1998)	Department of Environmental Affairs	1998
National Environmental Management: Protected Areas Act (Act No. 57 of 2003)	National Department of Environmental Affairs	2003
National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Department of Environmental Affairs	2004
National Heritage Resources Act (Act No.25 of 1999)	South African Heritage Resources Agency (SAHRA)	1999
National Water Act (Act No.36 of 1998)	Department of Water Affairs	1998
National Environmental Management Waste Act (Act No. 59 of 2008)	Department of Environmental Affairs	2008
National Forests Act (Act No. 84 of 1998)	Department of Agriculture, Forestry and Fisheries	1998
National Spatial Biodiversity Assessment:	Department of Environmental Affairs	2011

Occupational Health and Safety Act, 1993 (Act No. 85 of 1993):	National Department of Labour	1993
DEA Integrated Environmental Management Information Series	Department of Environmental Affairs	1992
DEAT EIA Guideline Documents, 2006	Department of Environmental Affairs	2006

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?

< 5 m³

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

All refuse and waste generated at the construction camp and on the construction site will be collected in appropriate containment vessels and removed on a regular basis to the local registered waste disposal site at Sun City.

Glass, metal and paper will be separated at source and removed as required by special contractor. This waste will be recycled at the closest registered recycling facility. Non-recyclable waste (including biodegradable waste and domestic waste) will be disposed of / incinerated at the local registered waste disposal facility at Sun City as is currently the case.

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

At the local registered waste disposal site at Sun City.

Will the activity produce solid waste during its operational phase?

YES

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

<3m³

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

All refuse and waste generated will be collected in appropriate containment vessels and removed on a regular basis to the local registered waste disposal site at Sun City, in accordance with the existing waste disposal system for the lodge.

Glass, metal and paper will be separated at source and removed as required by special contractor. This waste will be recycled at the closest registered recycling facility. Non-recyclable waste (including biodegradable waste and domestic waste) will be disposed of / incinerated at the local registered waste disposal facility at Sun City as is currently the case.

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

Domestic solid waste will be disposed of at the local registered waste disposal site at Sun City.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority 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

If yes, inform the competent authority 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 competent authority 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?

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

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.

The existing sewage infrastructure will be extended to treat the normal sewage. No other effluent will be disposed of on site.

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:	<input type="text"/>	
Contact person:	<input type="text"/>	
Postal address:	<input type="text"/>	
Postal code:	<input type="text"/>	
Telephone:	<input type="text"/>	Cell: <input type="text"/>
E-mail:	<input type="text"/>	Fax: <input type="text"/>

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

Waste water will be treated to a point where it is odourless and decontaminated and it meets the National Water Act stipulations for releasing water back into the environment and used to supplement the existing water feature or for irrigation of the grounds as is currently undertaken at the lodge.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere? NO

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

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

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

<input type="text"/>

11(d) Generation of noise

Will the activity generate noise?

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

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

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

If no, describe the noise in terms of type and level:

--

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

the volume that will be extracted per month:

litres

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

<input checked="" type="checkbox"/>	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 any, that have been taken to ensure that the activity is energy efficient:

New technology lighting has been incorporated into the electrical design. The use of gas heating and heat pumps has been explored in the water design, as well as, the use of water efficient tap faucets and shower roses. The building has been designed with cavity wall construction, thatch roofing and glazing designs being explored to aid in cooling loads for air conditioning.
--

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

The spa building toilets will use heat exchange technology. The possibility of utilising gas for water heating internally in the building and solar water heating for the swimming pool is being investigated. The building will be built in brick and will have a thatch roof to assist in heat capture / loss.
--

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 NO

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.

Specialists were not specifically appointed for this Application. However, in 2003, specialist Archaeology and Vegetation scans were undertaken for the same site in support of an application at that time (Scoping Report Undertaken by V&L Landscape Architects, 2003).

These specialist reports, as well as, the site data maps compiled by V&L Landscape Architects for that application have been referenced for baseline site information. Reports and maps have been included in Appendix D.

Property description/physical address:

Bakubung Lodge Lease Area, Portion 6 of the Farm Ledig 909 JQ, Pilanesberg Game Reserve

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

District Municipality
Local Municipality
Ward number
Closest town

Bojanala Platinum District Municipality

Moses Kotane Local Municipality

14

Ledig (Ipopeng)

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:

Conservation

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 this application.

Is a change of land-use or a consent use application required?

YES NO

Must a building plan be submitted to the local authority?

YES 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 and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

Refer to Appendix A.1.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1 (preferred alternative):

Steeper than 1:5

Alternative S2:

Steeper than 1:5

Alternative S3:

1:10 – 1:7,5

Refer To Appendix D.3

2. LOCATION IN LANDSCAPE

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

NB: Indicate by highlighting/ticking

Alternative S1 (preferred alternative):

2.1 Ridgeline

2.2 Plateau

2.3 Side slope of hill/mountain •

2.4 Closed valley

2.5 Open valley

2.6 Plain

- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

Alternative S2:

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain** -
- 2.4 Closed valley
- 2.5 Open valley
- 2.6 Plain
- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

Alternative S3:

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain
- 2.4 Closed valley
- 2.5 Open valley** -
- 2.6 Plain
- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

Regionally, the Bakubung Lodge is situated at the southern-most extremity of the Pilanesberg high ground. Locally, the lodge lies on a gentle north facing footslope at an altitude of about 1160masl. To the south, west and south west, the land rises steeply to altitudes of 1300, 1270 and 1280masl respectively. The lodge is nestled against the backdrop of a saddle separating these crests.

North of the lodge, the land slopes gently down to the permanent Matlhogaabone River. A small dam lies within the horseshoe of the lodge development, and overflows to the north via a non-perennial stream, which drains into the south flowing Matlhogaabone.

Currently, the sewage plant and bulk storage reservoirs (located immediately to the north east of the development) have also resulted in some surface overflows into the above-mentioned stream (V&L 2003).

Refer To Appendix D.3

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 (preferred):	Alternative S2:	Alternative S3:
Shallow water table (less than 1.5m deep)	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO
Dolomite, sinkhole or doline areas	<input type="checkbox"/> NO	<input type="checkbox"/> NO	<input type="checkbox"/> NO

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

According to the 1:250000 Geological Series Map 2526: Rustenburg, the development is underlain by the Pilanesberg Complex. The footslopes are characterised by undifferentiated surface deposits, while the high ground is underlain by Foyaitite of the Mankwe Formation (Mokolian sedimentary and volcanic rocks). Two Syenite dykes intrude through the study area: one in a north east to south west direction, and another in a north west to south east direction (V&L 2003).

Refer To Appendix D.3

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

Alternative S1 (preferred alternative):

Natural veld - good condition ^E	

Alternative S2:

Natural veld - good condition ^E		
	Building or other structure	Bare soil

Alternative S3:

Natural veld - good condition ^E	

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.

The soil classification was carried out according to the Taxonomic System for South Africa (Macvicar, C.N. 1991). Soil depths and textures were recorded on site to a maximum depth of 1500 mm (where applicable). Vegetation structure and dominant species at each soil auger point were recorded. The following soils were identified at the Bakubung study area (de Wet, F: 2003):

- Mispah - Mid-slopes and crest of outcrop
- Longlands – Lower lying foot-slope / river ecotone
- Bainsvlei – Upper foot-slope ecotones next to riverbanks and rocky mid-slopes
- Tukululu – Riverbanks / along drainage lines

Acocks (1975) described the Pilanesberg vegetation as Sour Bushveld (Veld Type 20) related to the Waterberg, Magaliesberg and Soutpansberg ranges. The Sour Bushveld at the study area has a woody structure that varies between short thicket and high open shrubland. The dominant vegetation identified at the Bakubung study area is as follows (de Wet, F: 2003):

- Short thicket (unit 1)
 - dominant woody species: *Spirostachys africana* / *Croton gratissimus*
 - dominant grass species: *Chrysopogon serrulatus*
- High open shrubland (unit 2)
 - dominant woody species: *Rhus lancea*
 - dominant grass species: *Eragrostis gummiflua* / *Cynodon dactylon*
- Short thicket (unit 3)
 - dominant woody species: *Acacia karroo*
 - dominant grass species: *Eragrostis rigidior*
- Short thicket (unit 4)
 - dominant woody species: *Rhus lancea* / *Ziziphus mucronata*
 - dominant grass species: *Cynodon dactylon*

The rocky Mispah soils are the least sensitive soils and the red apedal sandy loams are most suitable for development. However, areas close to the drainage line, dominated by the Bainsvlei form, show relatively wet subsoil conditions, especially during the rainy season. Provision should be made for dampness below 500 mm from soil surface.

Shallow gray soils with soft plinthic material (Longlands form), is sensitive and less suitable for development, unless necessary mitigations are followed to protect the buildings against dampness. These soils, including the above-mentioned Bainsvlei form, found below the rocky mid-slopes, have fluctuating water tables (de Wet, F: 2003).

Refer To Appendix D.1 and D.3

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: **NB: Indicate by highlighting/ticking**

5.1 Natural area •

- 5.2 Low density residential
- 5.3 Medium density residential
- 5.4 High density residential
- 5.5 Informal residential^A
- 5.6 Retail commercial & warehousing
- 5.7 Light industrial
- 5.8 Medium industrial^{AN}
- 5.9 Heavy industrial^{AN}
- 5.10 Power station
- 5.11 Office/consulting room
- 5.12 Military or police base/station/compound
- 5.13 Spoil heap or slimes dam^A
- 5.14 Quarry, sand or borrow pit
- 5.15 Dam or reservoir
- 5.16 Hospital/medical centre
- 5.17 School
- 5.18 Tertiary education facility
- 5.19 Church
- 5.20 Old age home

5.21 Sewage treatment plant^A • (for Alternative 3 only)

- 5.22 Train station or shunting yard^N
- 5.23 Railway line^N
- 5.24 Major road (4 lanes or more)^N
- 5.25 Airport^N
- 5.26 Harbour
- 5.27 Sport facilities
- 5.28 Golf course
- 5.29 Polo fields
- 5.30 Filling station^H
- 5.31 Landfill or waste treatment site
- 5.32 Plantation
- 5.33 Agriculture

5.34 River, stream or wetland • (for Alternative 3 only)

5.35 Nature conservation area •

5.36 Mountain, koppie or ridge •

- 5.37 Museum
- 5.38 Historical building

5.39 Protected Area •

- 5.40 Graveyard
- 5.41 Archaeological site
- 5.42 Other land uses (specify)

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

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

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

Refer To Appendix D.3

6. CULTURAL/HISTORICAL FEATURES

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

NO

If YES, explain:

[Redacted]

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:

[Redacted]

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.

No archaeological or historical remains were recorded in the proposed areas of development at the Bakubung Resort. (Coetzee, F: 2003).
Refer To Appendix D.2

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

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

- (a) *fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) 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 competent authority;*
- (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 metropolitan or 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 competent authority, 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.*

Refer to Appendix E

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 competent authority 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*
- (iv) *the manner in which and the person to whom representations in respect of the application may be made*

Refer to Appendix E

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 competent authority 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 the EIA regulations.

Advertisements and notices must make provision for all alternatives.

Refer to Appendix E

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 competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

No requirement for public meeting emerged during the Stakeholder Registration period.

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 the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

Compliance Authorities/ Organs of State and Interested and Affected Parties were invited to comment on the Draft Basic assessment Report from the 23 September 2014 to the 27 October 2014. All correspondence was captured and is recorded 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.

List of authorities informed:

The North West Department of Economic Development, Environment, Conservation and Tourism North West Provincial Heritage Resources Authority North West Parks and Tourism Board Department of Water Affairs: North West Province Bojanala District Municipality Moses Kotane Local Municipality Refer to Appendix E for full contact details

List of authorities from whom comments have been received:

North West Parks and Tourism Board

7. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

Has any comment been received from stakeholders?

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
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If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

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SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, 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.

Compliance Authorities/ Organs of State and Interested and Affected Parties were invited to comment on the Draft Basic assessment Report from the 23 September 2014 to the 27 October 2014. All correspondence was captured and is recorded under Appendix E. No material issues were raised. NWPTB approved the development.

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):

Compliance Authorities/ Organs of State and Interested and Affected Parties were invited to comment on the Draft Basic assessment Report from the 23 September 2014 to the 27 October 2014. All correspondence was captured and is recorded under Appendix E. No material issues were raised. NWPTB approved the development.

2. IMPACT ASSESSMENT

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.

The table hereunder is a summary of anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase for each alternative considered.

Refer to Appendix G for the comprehensive tables including all mitigation measures.

2(a) Impact Assessment: Alternative S1 (Preferred Alternative)

Activity	Impact summary	Significance (post mitigation)	Proposed mitigation
Planning and Design phase			
No impacts.			
Construction phase	<i>Direct impacts:</i>		
	Pollution of ground water due to: <ul style="list-style-type: none"> • unmanaged sewage discharge, • paint, solvent and chemical spills (construction materials), • hydrocarbon and fuel spills (leaks and refuelling) 	20 L	See Appendix G Section 2a.

Pollution of surface water due to: <ul style="list-style-type: none"> • unmanaged sewage discharge, paint, solvent and chemical spills (construction materials), • hydrocarbon and fuel spills (leaks and refuelling) • unmanaged runoff of grey water, cement slurry and wash water • litter and other inert construction waste. 	7 N	See Appendix G Section 2a.
Soil pollution due to: <ul style="list-style-type: none"> • unmanaged sewage discharge, paint, solvent and chemical spills (construction materials), • hydrocarbon and fuel spills (leaks and refuelling) • unmanaged runoff of grey water, cement slurry and wash water • litter and other inert construction waste. 	14 L	See Appendix G Section 2a.
Soil erosion by wind and rain as a result of the removal of stabilising vegetation and as a result of compaction by construction activities, vehicles and traffic.	10 N	See Appendix G Section 2a.
Air pollution by emissions from construction vehicles and equipment.	24 L	See Appendix G Section 2a.
Dust liberated by general construction activities and movement of construction vehicles to, from and over the site.	24 L	See Appendix G Section 2a.
Smoke from uncontrolled fires.	16 L	See Appendix G Section 2a.
Destruction of natural vegetation ahead of and due to construction activities.	30 L	See Appendix G Section 2a.
Loss in ecological function and a general loss of species and genetic diversity.	24 L	See Appendix G Section 2a.
Removal and / or destruction of Protected Species ahead of and due to construction activities.	8 N	See Appendix G Section 2a.
Increase in invasive species and bush encroachment into denuded areas.	24 L	See Appendix G Section 2a.
Loss of faunal habitat and fragmentation due to vegetation clearing and alteration of existing habitat	24 L	See Appendix G Section 2a.
Faunal disturbance due to the presence of construction personnel on site, and noise due to	18 L	See Appendix G Section 2a.

construction activities		
Human-wildlife conflicts, including construction personnel interacting with large and potentially dangerous animals such as big cats, elephant and rhino, as well as problem animals such as monkeys and snakes	12 N	See Appendix G Section 2a.
Poaching for bush meat or valuable wildlife products by construction personnel.	18 L	See Appendix G Section 2a.
Loss of potentially arable land due to construction activities.	24 L	See Appendix G Section 2a.
Damage to and / or destruction of heritage resources.	6 N	See Appendix G Section 2a.
Damage to and / or destruction of archaeological or historical artefacts unearthed during construction.	10 N	See Appendix G Section 2a.
Potential visual impact of construction on existing tourists (visual receptors) at Bakubung Lodge and within the Pilanesberg Game Reserve.	15 L	See Appendix G Section 2a.
Stimulation of the local economy, especially the local service delivery industry (i.e. accommodation, catering, cleaning, transport and security, etc.). (positive impact)	18 L	See Appendix G Section 2a.
Short term employment and business opportunities and the opportunity for skills development and on-site training. Jobs will be created of which a large percentage will be low and semi-skilled opportunities and will be made available to the local community. (positive impact)	18 L	See Appendix G Section 2a.
An increase in casual workers and associated increase in social problems for the local community.	6 N	See Appendix G Section 2a.
An increase in casual workers and associated increase in poaching and potential vandalism and damage to park infrastructure within the region.	6 N	See Appendix G Section 2a.
Potential loss of animal life, infrastructure and human life due to increased incidence of veld fires	30 L	See Appendix G Section 2a.
Impact of construction vehicles and the resultant noise, dust, and safety impacts for other road users and local residents	24 L	See Appendix G Section 2a.
<i>Indirect impacts:</i>		
None		
<i>Cumulative impacts:</i>		

	Cumulative loss in the floral species richness of the area, which will subsequently lead to a reduction in the overall extent of the vegetation.	20 L	See Appendix G Section 2a.
	Cumulative loss of faunal habitat and fragmentation due to vegetation clearing and alteration of existing habitat.	18 L	See Appendix G Section 2a.
	Opportunity to up-grade and improve skills levels in the area. However, due to relatively small number of local employment opportunities this benefit is likely to be limited (positive impact).	18 L	See Appendix G Section 2a.
	If damage to roads is not repaired then this will impact on other road users and result in higher maintenance costs for vehicles of local farmers and other road users. The costs will be borne by road users who were not responsible for the damage.	20 L	See Appendix G Section 2a.
Operational phase	<i>Direct impacts:</i>		
	Pollution of ground water due to: <ul style="list-style-type: none"> • unmanaged sewage discharge and spills, • chemicals, paint, solvents and detergents, • pesticides and herbicides • hydrocarbon and fuel spills. 	22 L	See Appendix G Section 2b.
	Pollution of surface water due to: <ul style="list-style-type: none"> • unmanaged sewage discharge and spills, • chemicals, paint, solvents and detergents, pesticides and herbicides, • hydrocarbon and fuel spills and • litter 	20 L	See Appendix G Section 2b.
	Soil pollution due to: <ul style="list-style-type: none"> • unmanaged sewage discharge and spills, • chemicals, paint, solvents and detergents, • pesticides and herbicides, • hydrocarbon and fuel spills and • litter 	18 L	See Appendix G Section 2b.
	Soil erosion resulting from the concentration of rainwater and / or wash water rushing off hard surfaces	18 L	See Appendix G Section 2b.
	Air pollution by emissions from private vehicles travelling to and from the site.	18 L	See Appendix G Section 2b.
	Smoke from uncontrolled fires.	18 L	See Appendix G Section 2b.

	Destruction of natural vegetation and Protected species during the operational phase (maintenance and operational activities).	22 L	See Appendix G Section 2b.
	The spread of alien invasive plants and bush encroachment into poorly rehabilitated areas during the operational phase.	16 L	See Appendix G Section 2b.
	Faunal disturbance due to operational activities and people (tourists and staff) present on site.	14 L	See Appendix G Section 2b.
	Mortality of fauna due to exposure to contaminants such as pesticides and oils, which may be used and / or spilt on site.	9 N	See Appendix G Section 2b.
	Persecution and hunting of fauna by staff and visitors on site.	18 L	See Appendix G Section 2b.
	Potential visual impact on visual receptors beyond the Pilanesberg Game Reserve (i.e. within the region)	9 N	See Appendix G Section 2b.
	Potential visual impact on existing tourists (visual receptors) at Bakubung Lodge and within the Pilanesberg Game Reserve.	16 L	See Appendix G Section 2b.
	<i>Stimulation of the local economy, especially the local service delivery industry (transport and security, etc. (positive impact)</i>	27 L	See Appendix G Section 2b.
	<i>Employment through skills development and on-site training (positive impact)</i>	27 L	See Appendix G Section 2b.
	Potential loss of animal life, infrastructure and human life due to increased incidence of veld fires	9 N	See Appendix G Section 2b.
	<i>Indirect impacts:</i>		
	Potential visual impact on the visual character of the landscape and sense of place of the region.	22 L	See Appendix G Section 2b.
	<i>Cumulative impacts:</i>		
	Opportunity to up-grade and improve skills levels in the area. However, due to relatively small number of local employment opportunities this benefit is likely to be limited (positive impact)	27 L	See Appendix G Section 2b.
Decommissioning phase			
Decommissioning not anticipated.			

2(b) Impact Assessment: Alternative S2

Activity	Impact summary	Significance (post mitigation)	Proposed mitigation
Planning and Design phase			

No impacts.			
Construction phase	<i>Direct impacts:</i>		
	As Above		See Appendix G Section 3a.
	<i>Indirect impacts:</i>		
	As Above		See Appendix G Section 3a.
	<i>Cumulative impacts:</i>		
Operational phase	<i>Direct impacts:</i>		
	As Above		See Appendix G Section 3b.
	<i>Indirect impacts:</i>		
	As Above		See Appendix G Section 3b.
	<i>Cumulative impacts:</i>		
Decommissioning phase			
Decommissioning not anticipated.			

2(c) Impact Assessment: Alternative S3

Activity	Impact summary	Significance (post mitigation)	Proposed mitigation
Planning and Design phase			
No impacts.			
Construction phase	<i>Direct impacts:</i>		
	As Above		See Appendix G Section 3c.
	<i>Indirect impacts:</i>		
	As Above		See Appendix G Section 3c.
	<i>Cumulative impacts:</i>		
Operational phase	<i>Direct impacts:</i>		
	As Above		See Appendix G Section 3c.
	<i>Indirect impacts:</i>		
	As Above		See Appendix G Section 3c.
	<i>Cumulative impacts:</i>		
Decommissioning phase			
Decommissioning not anticipated.			

2(d) Impact Assessment: No Project Alternative

Activity	Impact summary	Significance (post mitigation)	Proposed mitigation
Planning and Design phase			
No impacts.			
Construction phase	<i>Direct impacts:</i>		
	No stimulation of the local economy, especially the local service delivery industry (transport and security, etc.)	30 L	See Appendix G Section 4a.

	No short term employment through skills development and on-site training.	30 L	See Appendix G Section 4a.
	<i>Indirect impacts:</i>		
	None		See Appendix G Section 4a.
	<i>Cumulative impacts:</i>		
	No opportunity to up-grade and improve skills levels in the area.	30 L	See Appendix G Section 4a.
Operational phase	<i>Direct impacts:</i>		
	No stimulation of the local economy, especially the local service delivery industry (transport and security, etc.	45 M	See Appendix G Section 4b.
	No long term employment through skills development and on-site training.	45 M	See Appendix G Section 6b.
	<i>Indirect impacts:</i>		
	None		See Appendix G Section 4b.
	<i>Cumulative impacts:</i>		
	No opportunity to up-grade and improve skills levels in the area.	45 M	See Appendix G Section 4b.
Decommissioning phase			
Decommissioning not anticipated.			

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.

3(a) Impact Statement: Alternative S1 (Preferred Alternative)

The existing Bakubung Lodge site lies on a gentle north facing footslope. North of the lodge, the land slopes gently down to the permanent Mathhogaabone River. A small dam lies within the horseshoe of the lodge development, and overflows to the north via a non-perennial stream, which drains into the south flowing Mathhogaabone.

For all three site alternatives, the natural context of the lodge implies that natural vegetation will need to be removed for the construction of the Health Spa, and disturbance of soils and base vegetation cover will take place during installation of service infrastructure and footpaths. Alternatives S1 and S2 are located in the south west of the existing lodge site, on a moderate slope. Alternative S3 is located in the north east on a flatter slope. Neither receiving environment is unsuitable for development in terms of slope, hydrology, soils or vegetation.

Considering the site similarities (or rather the lack of particular sensitivities), the significance of impacts considered for the proposed Health Spa will be common for all alternative sites, with the highest of these anticipated during the construction phase. These construction phase impacts, if properly managed according to the mitigation proposed, will result in negligible to low significance residual impacts (i.e. impacts post mitigation), with no residual impacts of moderate, high or very high significance.

Operational phase impacts for the proposed Health Spa (all alternatives) may be similarly mitigated, and residual impacts (i.e. post mitigation) will also be of low to negligible significance with no residual impacts of moderate, high or very high significance.

Positive impacts, which are common to all the alternative layouts, include contributions to the local economy in the form of job creation and skills transfer and training in both the construction and operational phases of the project. In addition, the fostering of eco-tourism in the area will have a positive indirect impact on the stimulation of local tourism. Due to the small scale of the proposed project, these positive impacts will be limited, however.

Bakubung Lodge is already well developed within a small boundary. The addition of the Health Spa will have minimal additional impact relative to the existing lodge footprint. Provided that the mitigation measures proposed in this report are implemented, there is no reason for the project not to proceed.

In terms of recommending a preferred site, Alternatives S1 and S2 are very similar. However, Alternative S2 is located slightly closer to the existing road and hotel blocks than Alternative S1. As a result, the slightly more remote Alternative S1 will be more visually concealed and private than Alternative S2, and less acoustically affected by the proximity of the existing road, parking and hotel rooms. This is preferred from the client perspective, as a higher quality Spa experience may be offered if the Spa is 'tucked away in the bush'.

In this respect, it is the opinion of the EAP that Alternative S1 should be favoured on the basis of client preference; This is considered a fair argument especially since none of the 3 Alternative sites assessed presents any particular environmental sensitivity to development.

3(b) Impact Statement: Alternative S2

All arguments presented for the Alternative S1 are valid for Alternative S2, except for the fact that this alternative is located slightly closer to the existing road, parking and hotel rooms. Although this option represents a closer consolidation of lodge infrastructure, the spa in this position will be exposed to the movements of guests along the road as well as to and from hotel rooms. Although not unacceptable, this is not ideal for a Spa experience. A 5-star Spa experience should ideally transport the client away from the sights and sounds of everyday activities. This is the client vision in this regard.

Therefore, in terms of client preference, Alternative S2 is not considered as favourable as Alternative S1, and it is not recommended that this alternative be accepted.

3(c) Impact Statement: Alternative S3

All arguments presented for the Alternative S1 are valid for Alternative S3, except for the fact that this alternative is located comparatively far from the existing main lodge infrastructure. Of note is that planned expansions for the Bakubung Lodge (Approved EA, Reference number *EIA 99/2003NW*) will occur in this area, and this site Alternative is located adjacent to a possible restaurant building.

Considering the nature of a Health Spa, however, this location is not ideal for the operation of a Spa. The main client base for the Spa will reside at the main complex, some 500m away from S3 meaning that potential clients from the main complex will have to be driven to the Spa.

Therefore in terms of operational efficiency, guest comfort and compatibility, it is less desirable to locate the Spa in this location. Alternative S3 is not considered as favourable as Alternative S1, and it is not

recommended that this alternative be accepted.

3(d) Impact Statement No Project Alternative

The No-Go alternative implies that the addition of a Health Spa at Bakubung Lodge as proposed will not take place. In this scenario, there will be no negative impacts relating to the biodiversity of the site and surrounds, the aesthetic integrity of the site and surrounds, and the cultural historic integrity of the site.

However, the No-Go alternative will also imply that the project benefits, or positive impacts, will be lost locally. Such includes, but not limited to:

- Employment opportunities during the construction phase to a value of R500 000;
- The creation of 8 permanent jobs at an expected current value of R6 180 000 over the first 10 years and
- The generation of revenue to a value of R1 800 000 per annum.

The No-Go option further denies any opportunity to further develop the Bakubung Lodge (and by definition the Pilanesberg Game Reserve) for access by a more diverse tourist market.

Bearing in mind that all significant negative impacts can be mitigated and managed is therefore recommended that the No-Go Alternative not be supported.

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

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

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

Bakubung Lodge is already well developed within a small boundary. The addition of the Health Spa will have minimal additional impact relative to the existing lodge footprint. Provided that the mitigation measures proposed in this report are implemented, there is no reason for the project not to proceed.

Bearing in mind that all significant negative impacts can be mitigated and managed, it is recommended that the development as detailed in Alternative S1 be accepted.

Mitigation procedures detailed in the BAR and Environmental Management Programme must be implemented for the duration of the construction phase and operational phase of the project. Additionally, the following recommendations apply:

Recommendations for the Planning Phase:

- An Ecologist or the ECO should walk through the final site layout, and identify and mark all plant and tree species worthy of protection within a 20m radius of the new building.
- Where the building is likely to affect an identified Protected Species, then the position of the building must be slightly adapted to ensure that the protected plant is not damaged or removed.

Recommendations for the Construction Phase:

- A 'locals first' policy should be implemented where possible and local contractors should be appointed especially for low-skilled jobs.
- Contact numbers of all adjacent and neighbouring farms should be collected by the contractor so that in the event of a fire, they can be contacted.
- The existing construction camp, as used for the hotel room upgrades must be retained and re-used as a construction camp for the Spa. This construction camp must be fully rehabilitated upon the completion of construction works for the Spa.
- Construction personnel must be briefed on required conduct within a Protected Area, including all provisions of the EMP, with specific attention to encounters with fauna (dangerous or otherwise). Personnel must be aware of protocols regarding animals encountered on site.
- Alien plant species must be eradicated and follow up measures must be put in place to prevent the spread of these alien plants in the disturbed soils.
- Special attention must be given to fire management, and in addition to adequate firefighting equipment, which must be on all construction sites at all times, the Contractor must adhere to all recommendations by the Park Manager in this regard.
- Rehabilitation must be implemented after construction to ensure that all exposed areas around the units

as well as the old road alignment are re-vegetated with local endemic plant species, using the topsoil stockpiled. No alien vegetation is permitted.

- The storm water management plan as detailed in the EMPr must be implemented to avoid the pollution of drainage lines, ground and surface water.

Recommendations for the Operational Phase:

- All rehabilitated areas should be monitored for a year to ensure the re-establishment of vegetation and the prevention of erosion.
- Ensure facility sewage system is well maintained to prevent pollution of water and soil resources.
- Maintain the storm water management system to ensure that surface and runoff water from hard surfaces does not contribute to erosion and pollution.
- Implement an alien invasive monitoring programme to prevent the colonization and spreading of these species.
- Implement and maintain an on-going fire management programme within the Park.

Is an EMPr attached?

YES

The EMPr must be attached as Appendix F.

Refer to Appendix F

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

- Appendix D.1: Soil and Vegetation Survey: Bakubung Development, Pilanesberg Game Reserve (Francois de Wet, 2003)
- Appendix D.2: Archaeological Investigation of the baKubung Resort, Pilanesberg National Park, North West Province (Francois Coetzee, 2003)
- Appendix D.3: Site Data Maps (V&L Landscape Architects, 2003)

Appendix E: Record of Public Participation

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Impact Assessment Tables

