

**MAY 2023**

***GAUT 002/22-23/E3463***

***“LITTLE BEE-EATER”***

**PROPOSED TOURISM FACILITY ON THE FARM PTN  
71 OF THE FARM KLIPDRIFT 90 JR, DINOKENG  
GAME RESERVE,  
CITY OF TSHWANE, GAUTENG**

***DRAFT BASIC ASSESSMENT REPORT FOR PUBLIC  
COMMENT***



Prepared By: EnviroSynergy Consulting (Pty) Ltd  
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**LITTLE BEE-EATER LODGE:  
PROPOSED TOURISM FACILITY ON THE FARM KLIPDRIFT 90  
JR/PORCION 71, DINOKENG GAME RESERVE,  
CITY OF TSHWANE, GAUTENG**

***DRAFT BASIC ASSESSMENT REPORT FOR COMMENT***

**GDARD REFERENCE NUMBER: GAUT 002/22-23/E3463**

Prepared for:

WILDLIFE ASSIGNMENTS PTY LTD  
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Submitted to:



**Gauteng Department of Agriculture and Rural Development**

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**Date: May 2023**

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## EXECUTIVE SUMMARY

### Project Description

EnviroSynergy Consulting (Pty) Ltd (ESC) has been appointed by **WILDLIFE ASSIGNMENTS PTY LTD** (Applicant) as the Environmental Assessment Practitioner (EAP) for the proposed tourism facility and related infrastructure on the Farm Klipdrift 90 JR/Ptn 71, located in the Dinokeng Game Reserve (DGR), City of Tshwane Metropolitan Municipality (CoTMM), Gauteng. The property size is 23, 42 hectares (ha) and the proposed tourism facility will have a maximum footprint of approximately 0, 20 ha. The footprint is in line with the 1 % development footprint proposed in the Environmental Management Plan (EMP) of the Dinokeng Game Reserve (DGRM) of 2005. Refer to **Figure 1: Location Map** (A3-sized copy attached under **Appendix A**).

The proposed LITTLE BEE-EATER Lodge will consist of seven (7) Tents within a fenced area of 2, 3 ha (10% of the total property size). Refer to **Figure 2: Layout Plan** (A3-sized copy attached under **Appendix C**). The following has been proposed:

### Proposed Facilities and Footprints

No.	Accommodation Type	Description	Total ( m <sup>2</sup> )	Total (Ha)
1.	Tents	7 x 255 m <sup>2</sup>	1785 m <sup>2</sup>	0,17 ha
2.	Communal Areas	Boma / Lounge	300 m <sup>2</sup>	0,03 ha
3.	Private Dwelling (Manager)	House x 250 m <sup>2</sup>	250 m <sup>2</sup>	0,025 ha
4.	Boma	300m <sup>2</sup>	300m <sup>2</sup>	0, 03 ha
<b>Total Proposed Footprint</b>			<b>2, 342 m<sup>2</sup></b>	<b>0, 23 ha</b>
<b>Total Percentage Coverage</b>			<b>&lt; 1 %</b>	

The above facilities will be able to accommodate approximately 15-20 people.

### Legal Aspects

The proposed development includes scheduled activities under the 2014 EIA Regulations (as amended) resulting in the need for Environmental Authorisation (EA) from the Department of Agriculture and Rural Development (GDARD) prior to commencement. Activities applied for under NEMA include **GNR 324 (Listing Notice 3: Activities 6, 12)**.

### Alternatives

Due to the minimal footprint applied for (1% of the total property), this report only considers the Proposed Activity and the No-Go Alternative. The consideration of energy efficient and greener technologies will be prioritised as the area is not serviced by the Municipality. If the project does not proceed, the socio-economic benefits will not be realised including, but not limited to: Job creation (temporary and permanent), local economic stimulation through the sourcing of materials and services and more varied tourism facilities in Dinokeng Game Reserve.

### Impact Assessment

The potential negative, positive and cumulative environmental impacts of the Proposed Activity were assessed and the impact significance were determined using criteria as set out in the guideline

document: DFFET (2002) Impact Significance, Integrated Environmental Management, Information Series 5, Department of Environmental Affairs and Tourism (DFFET), Pretoria (now called DFFE). The Proposed Activity has a small overall footprint and low negative impacts after mitigation. The proposed facilities and infrastructure have been determined according to the “step-lightly” approach, with each facility placed in a unique setting, retaining as much as possible of the indigenous vegetation in order to enhance the aesthetics and “bushveld’ character of the area.

### Construction, Operational and Cumulative Impacts

Potential impacts:	Significance rating of impacts:	Significance rating of impacts after mitigation:
<b>NEGATIVE IMPACTS (CONSTRUCTION AND OPERATIONAL PHASES)</b>		
Potential ground and surface water pollution Construction phase	Low	Low
Potential ground water pollution Operational Phase	Medium	Low
Potential soil disturbances and erosion including compaction Construction Phase	Low	Low
Potential soil disturbances and erosion Operational Phase	Medium	Low
Vegetation degradation / destruction (Alteration of Natural Habitat) Construction Phase	Low-Medium	Low
Potential vegetation degradation / destruction (including spreading of alien plants) Operational Phase	Low-Medium	Low
Potential loss of faunal and avifaunal species Construction Phase	Low-Medium	Low
Potential loss of faunal and avifaunal species Operational Phase	Low	Low
Impacts on ambient air quality (dust, and noise generation) Construction Phase	Low-Medium	Low
Impacts on ambient air quality (dust, and noise generation) Operational Phase	Low	Low
Light Pollution Operational Phase	Low-Medium	Low
Potential Impacts on Heritage Resources Construction Phase	Low	Low
Potential impacts on traffic in the area Construction Phase	Low	Low
Visual Impact/Change in Landscape Character Construction and Operational Phase	Low	Low
<b>POSITIVE IMPACTS</b>		
Promotion of tourism in the Dinokeng Game Reserve	High	
Creation of employment and un-skill opportunities (during the Construction as well as the Operational Phases)	High	
Increase in revenue for the Dinokeng Big 5 Game Reserve and CoTMM (Levy, Rates and Taxes)	High	
<b>NEGATIVE IMPACTS (CUMULATIVE IMPACTS)</b>		
An increase in vehicular traffic in Dinokeng (especially over weekends)	Medium	Medium

Increased dust generation (-) – mostly during construction	<b>Medium-Low</b>	<b>Low</b>
Increased light pollution (-) – during the operational phase	<b>Medium</b>	<b>Medium</b>
Increased accumulative noise levels during construction (temporary) and during the operational phase (at certain intervals, especially over weekends) (-)	<b>Medium</b>	<b>Medium</b>
Cumulative displacement of resident fauna species (-)	<b>Medium-Low</b>	<b>Low</b>
Visual Impact (-)	<b>Medium-Low</b>	<b>Medium-Low</b>
<b>POSITIVE IMPACTS</b>		
Social Upliftment and Economic Recovery Post Covid-19 (+)	<b>High</b>	
Increase in accommodation options in Dinokeng (+)	<b>High</b>	
Investment in Dinokeng Game Reserve as per Gauteng Economic Development Plan (Flagship Tourism Destinations) (+)	<b>High</b>	

### EAP's Recommendation

Having assessed the impacts of the Proposed Activity the EAP is of the opinion that the Proposed Activity should be authorised.

The Proposed Activity is in line with the Dinokeng Big-5 Game Reserve initiative earmarked for this area from a Local and Provincial Spatial Planning point of view. The facility, with its various accommodation facilities, will attract eco-tourists who are generally known to have a preference for small-scale developments in undisturbed natural areas with a low-impact that is based on responsible and sustainable practices.

Although a number of potential short and long-term environmental and social impacts can be expected during the construction and operational phases, it was found that the significance of these impacts could be reduced through the implementation of appropriate mitigation measures. Based on the outcome of the impact assessment and associated specialist investigations (Heritage and Biodiversity Studies), there are no evident fatal flaws prohibiting the activity from being implemented.

### Proposed Mitigation Measures

The EAP recommends that should a positive Environmental Authorisation be granted by the GDARD, it should be subject to the following:

- All mitigation measures in Section E of the Basic Assessment and recommendations made by the specialist studies (Appendix G) should be adhered to during the Construction and Operational Phases of the development.
- All recommendations and mitigation measures in the Environmental Management Programme (EMPr) (Appendix H) must be complied with.
- A Water Use Registration Licence terms of the National Water Act, 1998 (Act No. 36 of 1998) [NWA] must be obtained from the Department of Water and Sanitation (DWS) for applicable water use(s).

- Section 38 approval in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) [NHRA] must be obtained from the Provincial Heritage Resources Agency of Gauteng (PHRAG).
- An Environmental Control Officer (ECO) must be appointed during the construction phase to ensure environmental compliance.

## **Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1)**

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Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This application form is current as of 8 December 2014. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.**
4. **A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.**
5. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
6. 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.
7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
8. An incomplete report may lead to an application for environmental authorisation being refused.
9. **Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation being refused.**
10. 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 application for environmental authorisation being refused.
11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
12. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

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### **DEPARTMENTAL DETAILS**

Gauteng Department of Agriculture and Rural Development  
Attention: Administrative Unit of the of the Environmental Affairs Branch  
P.O. Box 8769  
Johannesburg  
2000

Administrative Unit of the of the Environmental Affairs Branch  
Ground floor Diamond Building  
11 Diagonal Street, Johannesburg

Administrative Unit telephone number: (011) 240 3377  
Department central telephone number: (011) 240 2500

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(For official use only)

<b>NEAS Reference Number:</b>						
<b>File Reference Number:</b>						
<b>Application Number:</b>						
<b>Date Received:</b>						

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

**Request was granted**

Is a closure plan applicable for this application and has it been included in this report?

<b>NO</b>
<b>X</b>

If not, state reasons for not including the closure plan.

**No mining activities have ever taken place on the proposed site.**

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

<b>YES</b>
<b>X</b>

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person?

<b>YES</b>
<b>X</b>

Refer to **Appendix E.9**: for the I&AP Register which includes all relevant State Department contact details.

If no, state reasons for not attaching the list.

N/A

Have State Departments including the competent authority commented?

<b>NO</b>
<b>X</b>

If no, why?

**Comments on this Draft Basic Assessment Report (BAR) from all relevant State Departments (including the Competent Authority) will be included in the Final BAR.**



## SECTION A: ACTIVITY INFORMATION

### 1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

**LITTLE BEE-EATER Lodge on the Farm Klipdrift 90 JR / Ptn 71, Dinokeng**

Select the appropriate box

~~The application is for an upgrade of an existing development~~

The application is for a new development

Other, specify

Does the activity also require any authorisation other than NEMA EIA authorisation?

**YES**

If yes, describe the legislation and the Competent Authority administering such legislation

- **The development will require town planning approval (rezoning from Agriculture to Special Consent “Lodges”) from the City of Tshwane Metropolitan Municipality (CoTMM).**
- **A Section 21 Water Use Application Process will be followed in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA). To be administered by the Department of Water and Sanitation (DWS).**
- **Section 38 approval in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) have to be obtained from the Provincial Heritage Resources Agency of Gauteng (PHRAG).**

If yes, have you applied for the authorisation(s)?

**NO**

If yes, have you received approval(s)? (attach in appropriate appendix)

**NO**

### 2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Constitution of the Republic of South Africa Act, 1996 (Act No 108 of 1996)	National	4 February 1997
National Environmental Management Act No. 107 of 1998 as amended	National (DFFE) and Provincial (GDARD)	27 November 1998
National Water Act, 1998 (Act No. 36 of 1998) (NWA)	National Department of Water and Sanitation (DWS)	1 October 1998
National Environmental Management: Biodiversity, 2004 (Act No. 10 of 2004) (NEM: BA)	South African National Biodiversity Institute	1 September 2004

<b>Title of legislation, policy or guideline:</b>	<b>Administering authority:</b>	<b>Promulgation Date:</b>
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)	National (SAHRA) and Provincial Heritage Resources Agency Gauteng (PHRAG)	1 April 2000
DFFE Guidelines on Public Participation	National (DFFE)	10 October 2012
DFFE Guidelines on Alternatives	National (DFFE)	2004
DFFE Guidelines on Need & Desirability	National (DFFE)	2004
City of Tshwane Metropolitan Spatial Development Framework 2012 and 2021	City of Tshwane Metropolitan	2012 2021
Environmental Management Framework Regulations (GN R No. 1655)	Gauteng Department of Agriculture and Rural Development (GDARD)	22 May 2015
Regulations promulgated under Chapter 5 of the National Environmental Management Act (NEMA, Act 107 of 1998) in Government Gazette 38282 on 4 December 2014 as amended in 2017.	Gauteng Department of Agriculture and Rural Development (GDARD)	4 December 2014 1 April 2017
Gauteng Department Of Economic Development – BLUE IQ	Gauteng Department Of Economic Development	1997 2011

Description of compliance with the relevant legislation, policy or guideline:

<b>Legislation, policy or guideline</b>	<b>Description of compliance</b>
Constitution of the Republic of South Africa Act, 1996 (Act No 108 of 1996)	Section 24 of the Constitution of South Africa No. 108 of 1996 states that "...everyone has the right (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that (c) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development." This protection encompasses preventing pollution and promoting conservation and environmentally sustainable development. The proposed project will ensure of such rights.
National Environmental Management Act, 1998 (Act No. 107 of 1998)	The Environmental Authorisation for the proposed development is lawfully applied for in terms of the EIA Regulations, 2014, promulgated under NEMA. The conditions on the Environmental Authorisation, if approved, will be adhered to.

Legislation, policy or guideline	Description of compliance
The National Water Act 1998 (Act No 36 of 1998)	A Section 21 (a); (c) and (i) Water Use Registration process will be followed in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA). To be administered by the Department of Water and Sanitation (DWS).
National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004)	The fauna and flora prevailing in the proposed project site will be handled in terms or respect of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) as amended (NEMBA) including all the pieces of legislation published in terms of this act.
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)	A Phase 1 Heritage Impact Assessment was undertaken and submitted to the Provincial Heritage Resources Agency of Gauteng (PHRAG) for Section 38 Approval.
DFFE Guidelines on Public Participation	Integrated Environmental Management (IEM) is a philosophy, which prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development process. This philosophy aims to achieve a desirable balance between conservation and development. IEM is a philosophy, which prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development process. This philosophy aims to achieve a desirable balance between conservation and development (Department of Environmental Affairs: DFFET, 2004). The IEM guidelines intend endearing a proactive approach to sourcing, collating and presenting information at a level that can be interpreted at all levels.
DFFE Guidelines on Alternatives	
DFFE Guidelines on Need & Desirability	
City Of Tshwane Metropolitan Integrated Development Plan (IDP) 2021 -2024	The Dinokeng project is listed as part of the Specialized Activity Areas - Tourism Node Area
City of Tshwane Metropolitan Spatial Development Framework 2021	This City of Tshwane Metropolitan Spatial Development Framework of 2021 was consulted in order to ensure that the proposed project is in line with its spatial strategies.  The Dinokeng project is listed as part of the Specialized Activity Areas - Tourism Node Area
Gauteng Provincial Environmental Management Framework (GPEMF) 2015	The Gauteng Provincial Environmental Management Framework is legal instruments in terms of the Environmental Management Framework Regulations, 2010. ( <a href="http://www.DFFE.gpg.gov.za">http://www.DFFE.gpg.gov.za</a> ).  Five Environmental Management Zones (EMZ) and Special Control Zones were identified and adopted by the Gauteng MEC in May 2015. According to the GPEMF the proposed project area falls within the (a) Dinokeng Special Control Zone. This is an area with high potential for nature tourism activities with a strong conservation character.

Legislation, policy or guideline	Description of compliance
Spatial Planning and Land Use Management Act, 2013	<p>Based on town planning development principles set out in SPLUMA, the activity will commence on the grounds of the principles, i.e.:</p> <ul style="list-style-type: none"> <li>✓ Spatial Sustainability</li> <li>✓ Spatial Efficiency</li> <li>✓ Good Administration</li> </ul>
Dinokeng Game Reserve Environmental Management Plan (2014) – Development Densities	<p>The primary objective regarding developments is that development densities and the development and management of all infrastructure will be guided by norms and guidelines that will ensure optimum use, maximum visitor satisfaction and cost-effective management of the DGR for the benefit of its stake holders.</p> <p>“The combined density of private and commercial developments on both private and State land should be limited to a development footprint of 1% of the area of the DGR.”</p> <p>“For any new developments, an EIA must be undertaken according to DGR guidelines.”</p> <p>The proposed application’s footprint is in line with the above principles</p>
Gauteng Department Of Economic Development – BLUE IQ	The project is in line with the BLUE IQ Initiative (1997) – i.e. <b>Dinokeng Nature Reserve (Tourism node)</b>

### 3. ALTERNATIVES

Describe the proposal and 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. The determination of whether the 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.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not include the no go option into the alternative table below.**

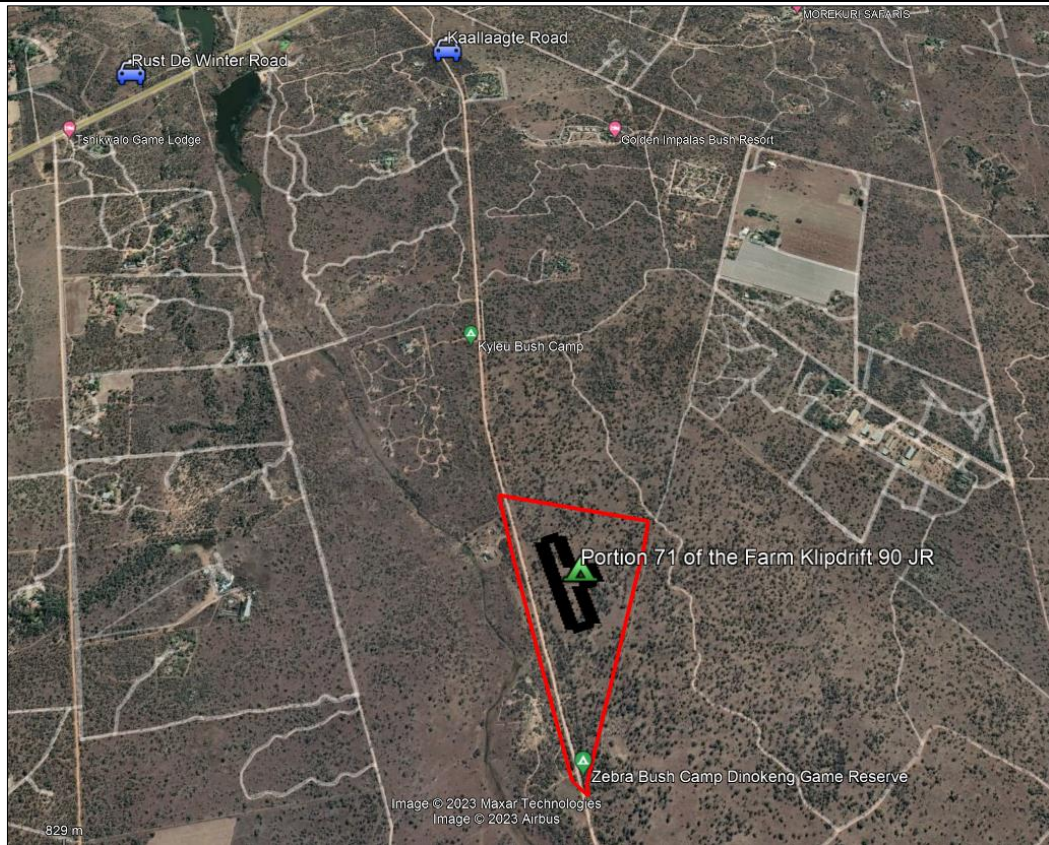
**Note:** After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

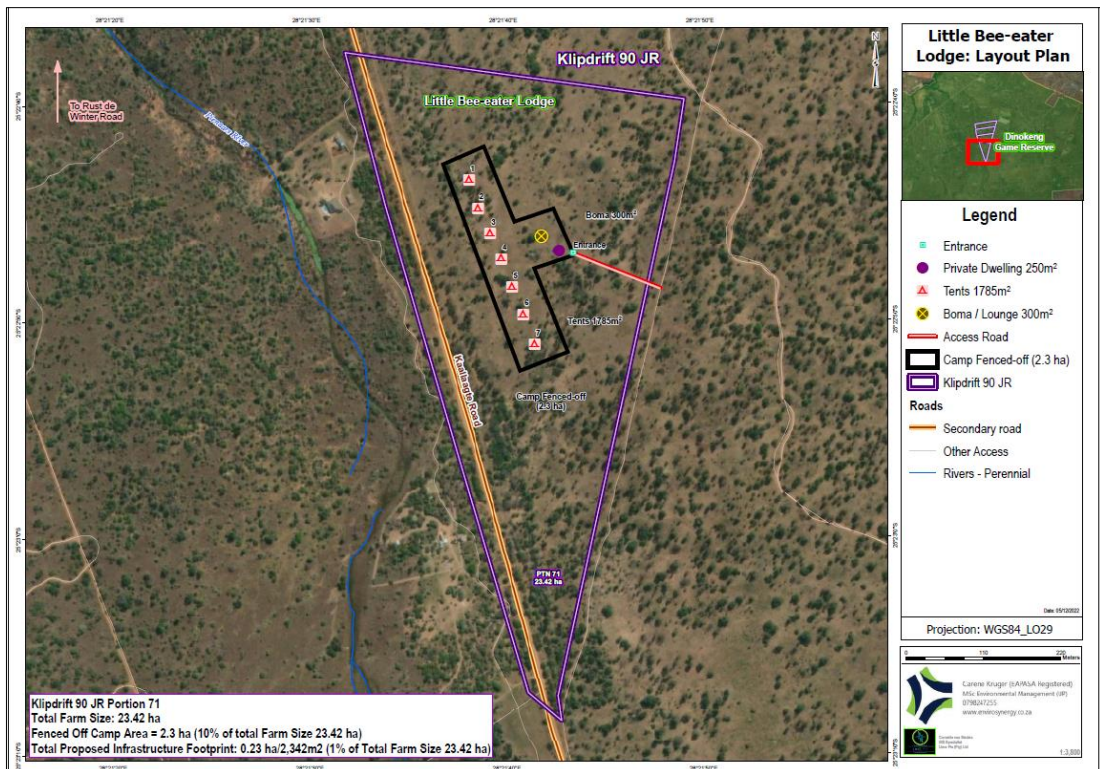
Due to the lack of any other suitable and available land this report only considers the Proposed Activity and the No-Go Alternative. If the project does not proceed, it will have a negative impact on the Socio-economic context. Benefits such as increased tourism opportunities for the Dinokeng Game Reserve as well as numerous job opportunities will be lost.

Provide a description of the alternatives considered:

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other (provide details of "other")	Description																														
1	<p><b>Proposed Activity:</b> LITTLE BEE-EATER Lodge <b>Tourism Facility on Klipdrift 90 JR /Ptn 71</b></p>	<p>EnviroSynergy Consulting (Pty) Ltd (ESC) was appointed by WILDLIFE ASSIGNMENTS PTY LTD (Applicant) as Environmental Assessment Practitioner (EAP) for the proposed tourism facility and related infrastructure on the Farm Klipdrift 90 JR/PTN 71, located in the Dinokeng Game Reserve (DGR), City of Tshwane Metropolitan Municipality (CoTMM), Gauteng.</p> <p>The property size is 23, 42 ha hectares (ha) and the proposed tourism facility will have a maximum footprint of approximately 0, 23 ha. The footprint is in line with the 1 % development footprint proposed in the Environmental Management Plan (EMP) of the Dinokeng Game Reserve (DGRM) of 2005. Refer to Figure 1: Location Map (A3-sized copy attached under Appendix A).</p> <p>The following is proposed:</p> <table border="1" data-bbox="560 1048 1474 1346"> <thead> <tr> <th>No.</th> <th>Accommodation Type</th> <th>Description</th> <th>Total ( m<sup>2</sup>)</th> <th>Total (Ha)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Tents</td> <td>7 x 255m<sup>2</sup></td> <td>1785 m<sup>2</sup></td> <td>0,17 ha</td> </tr> <tr> <td>2.</td> <td>Communal Areas</td> <td>Boma</td> <td>300 m<sup>2</sup></td> <td>0,04 ha</td> </tr> <tr> <td>3.</td> <td>Private Dwelling (Manager)</td> <td>House x 250 m<sup>2</sup></td> <td>250 m<sup>2</sup></td> <td>0,025 ha</td> </tr> <tr> <td colspan="3"><b>Total Proposed Footprint</b></td> <td><b>2,342 m<sup>2</sup></b></td> <td><b>0, 23 ha</b></td> </tr> <tr> <td colspan="3"><b>Total Percentage Coverage</b></td> <td colspan="2"><b>&lt; 1 %</b></td> </tr> </tbody> </table> <div data-bbox="584 1368 1449 1877"> </div> <p>(<a href="https://www.kiwicollection.com/hotel-detail/ngala-tented-safari-camp">https://www.kiwicollection.com/hotel-detail/ngala-tented-safari-camp</a>)</p> <p><b>Example of Tented Camp</b></p>	No.	Accommodation Type	Description	Total ( m <sup>2</sup> )	Total (Ha)	1.	Tents	7 x 255m <sup>2</sup>	1785 m <sup>2</sup>	0,17 ha	2.	Communal Areas	Boma	300 m <sup>2</sup>	0,04 ha	3.	Private Dwelling (Manager)	House x 250 m <sup>2</sup>	250 m <sup>2</sup>	0,025 ha	<b>Total Proposed Footprint</b>			<b>2,342 m<sup>2</sup></b>	<b>0, 23 ha</b>	<b>Total Percentage Coverage</b>			<b>&lt; 1 %</b>	
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<b>Total Percentage Coverage</b>			<b>&lt; 1 %</b>																													



**Figure 1: Location of Proposed Activity**



**Figure 2: Proposed Activity Site Layout Plan**

**Services:**

With no available municipal bulk services in the area, the Applicant shall be responsible for the comprehensive operation and maintenance of the internal services.

**Access:**

Access will be via the Kaallaagte Road (which leads off the main Rust De Winter Road in Dinokeng) and smaller self-drive dirt roads. A short 2-spoor gravel road will be implemented from the existing gravel road to the entrance of the facility. Access between the various facilities within the fenced off "Lodge" area will consist of 2-spoor roads as to ensure minimal vegetation clearance. **Figure 2: Layout Plan.**

**Potable Water:**

The Proposed Activity will rely on groundwater from an existing borehole located on the Farm Kaallaagte. The borehole will be registered with the Department of Water and Sanitation. Water will be pumped via a pressurised gravity system into a JoJo tank.

**Sewerage (Black Water) and Grey Water:**

With no municipal sewer infrastructure in the Dinokeng Game Reserve, the Applicant proposes to install Conservancy Tanks which can be used for the disposal of black (sewerage) and grey (bathroom/washing) water. The tank(s) will be emptied by a honey sucker as per the required intervals.

**Stormwater:**

Due to the small footprint the proposed activity will not generate a significant increase in stormwater run-off or concentrated flows. Stormwater runoff will drain naturally via sheet-flow through the veld.

**Electricity:**

Electricity will be supplied by Eskom and solar power will be used to supplement the main electricity supply.

<b>No.</b>	<b>Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other (provide details of "other")</b>	<b>Description</b>
<b>2</b>	<b>No-go Alternative</b>	Due to the limited footprint and infrastructure proposed for the project, only the no-go alternative is considered. If the Department rejects the Application for Environmental Authorisation the No-go Alternative will be adopted

**4. PHYSICAL SIZE OF THE ACTIVITY**

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc.), impermeable surfaces and landscaped areas:

Size of the activity:

**Proposed activity:** Total footprint

0,23 ha

Alternatives:

Alternative 1:

N/A

Alternative 2:

N/A

Ha/ m2

or, for linear activities:

Length of the activity:

Proposed activity: includes a linear component

N/A

Alternatives:

Alternative 1:

N/A

Alternative 2

N/A

m/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

**Size of the site/servitude:**

**Proposed activity: (Total footprint of the servitude)**

N/A

**Alternatives:**

Alternative 1:

N/A

Alternative 2: Activity Alternative

N/A

Ha/m<sup>2</sup>

## 5. SITE ACCESS

### Proposal

Does ready access to the site exist, or is access directly from an existing road?

**YES**  
**X**

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

N/A

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment). N/A

### Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

N/A

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

N/A

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment). N/A

### Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

N/A

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

N/A

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment). N/A



## **PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives**

Section A 6-8 has been duplicated  Number of times (only complete when applicable)

### **6. LAYOUT OR ROUTE PLAN REFER TO APPENDIX A**

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
  - A4 size for activities with development footprint of 10sqm to 5 hectares;
  - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
  - A2 size for activities with development footprint of >20 hectares to 50 hectares);
  - A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
  - A0 = 1: 500
  - A1 = 1: 1000
  - A2 = 1: 2000
  - A3 = 1: 4000
  - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

### **FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)**

- the scale of locality map must be 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 locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

### **7. SITE PHOTOGRAPHS Refer to Appendix B**

Colour photographs from the center 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 the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

## **8. FACILITY ILLUSTRATION      REFER TO APPENDIX C**

A detailed illustration of the activity must be provided at a scale of 1:200 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 to be attached in the appropriate Appendix.

## SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

**Note:** Complete Section B for the proposal and alternative(s) (if necessary)

### Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc.) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of  times the route

### Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives  times (complete only when appropriate)

### Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route  (complete only when appropriate for above)

Section B – Location/route Alternative No.  (complete only when appropriate for above)

## 1. PROPERTY DESCRIPTION

**Property description:**  
(Including Physical Address and Farm name, portion etc.)

Farm Klipdrift 90 JR/ Portion 71 Dinokeng

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

**Centre point**

<b>Latitude (S):</b>	<b>Longitude (E):</b>
25°22'33.52"S	28°21'41.19"E

**In the case of linear activities:**

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

<b>Latitude (S):</b>	<b>Longitude (E):</b>
N/A	N/A
N/A	N/A
N/A	N/A

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

T	0	J	R	0	0	0	0	0	0	0	0	0	9	0	0	0	0	7	1
1	2		3			4					5								

**3. GRADIENT OF THE SITE**

Indicate the general gradient of the site. Indicate the general gradient of the site.

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

**4. LOCATION IN LANDSCAPE**

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	<b>Plain</b> X	Undulating plain/low hills	River front
-----------	---------	--------------------------	--------	-------------------	----------------------------	-------------

**5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE**

a) Is the site located on any of the following?

- Shallow water table (less than 1.5 m deep)
- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

	<b>NO</b> X
	<b>NO</b> X
	<b>NO</b> X
	<b>NO</b> X
	<b>NO</b> X
	<b>NO</b> X
	<b>NO</b> X
<b>YES</b> X	



**The site falls within the Bushveld Igneous Complex**

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s)

	<b>NO</b> <b>X</b>
--	-----------------------

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

c) are any caves located within a 300 m radius of the site(s)

	<b>NO</b> <b>X</b>
--	-----------------------

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

d) are any sinkholes located within a 300 m radius of the site(s)

	<b>NO</b> <b>X</b>
--	-----------------------

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

If any of the answers to the above are “YES” or “unsure”, specialist input may be requested by the Department

## 6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?

**NO**  
**X**

**Please note:** The Department may request specialist input/studies in respect of the above.

## 7. GROUNDCOVER

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

Indicate the types of groundcover present on the site and include the estimated percentage found on site.

Natural veld - good condition % = 90	Natural veld with scattered aliens % = 5	Natural veld with heavy alien infestation % =	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % =	<b>Bare soil</b> % = 5

**Please note:** The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site

**YES**  
**X**

If YES, specify and explain:

Two protected trees are expected to occur within the study site, Marula and Leadwood. These trees should be avoided, and where avoidance is inevitable, a permit should be applied before disturbing the abovementioned trees.

Are there any rare or endangered flora or fauna species (including red list species) present within a 200 m (if within urban area as defined in the Regulations) or within 600 m (if outside the urban area as defined in the Regulations) radius of the site.

**YES**  
**X**

If YES, specify and explain:

Two protected trees are expected to occur within the study site, Marula and Leadwood. These trees should be avoided, and where avoidance is inevitable, a permit should be applied before disturbing the abovementioned trees.

Are there any special or sensitive habitats or other natural features present on the site?

**YES**  
**X**

If YES, specify and explain:

Two protected trees are expected to occur within the study site, Marula and Leadwood. These trees should be avoided, and where avoidance is inevitable, a permit should be applied before disturbing the abovementioned trees.

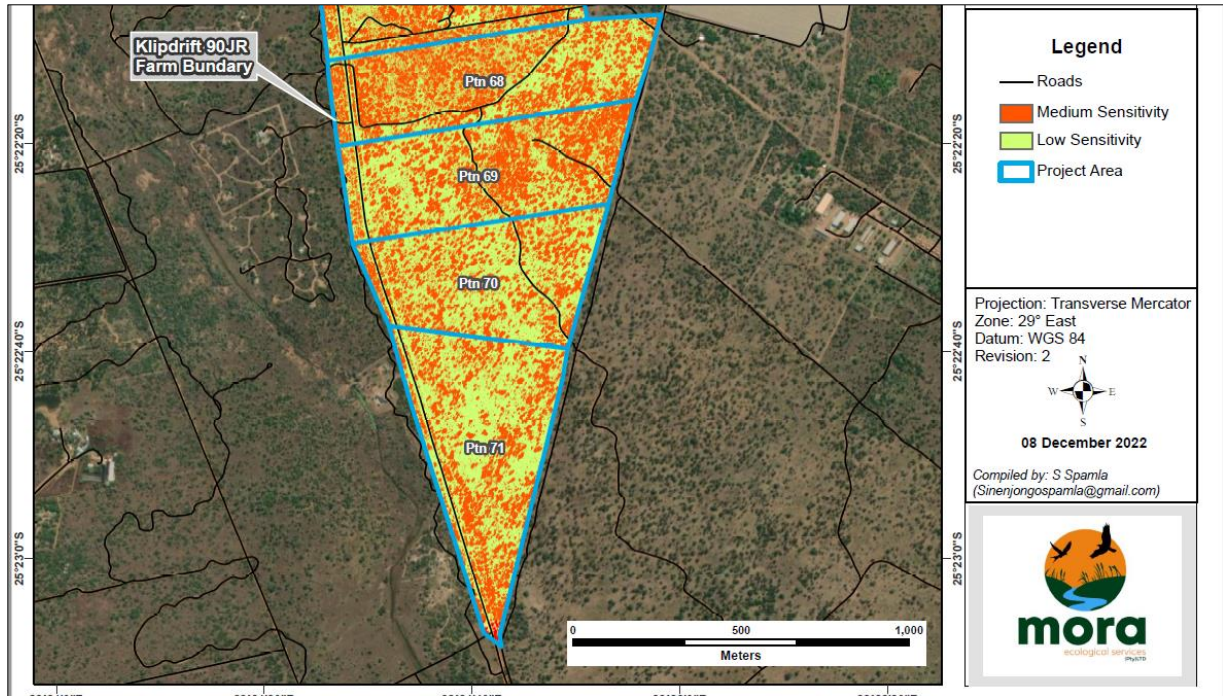
Was a specialist consulted to assist with completing this section

**YES**  
**X**

Name of the spESCalist:	Mokgatla Molepo		
Qualification(s) of the spESCalist:	MSc. Zoology ( <i>Pr.Sci.Nat: 009509</i> )		
Postal address:	Unit 107, Malet, 350 Johan St, Arcadia, Pretoria		
Postal code:	0007		
Telephone:	0814103763	Cell :	0765597692
E-mail:	mokgatlajm@gmail.com	Fax:	-
Are any further specialist studies recommended by the specialist?		NO	<input type="checkbox"/>
		X	<input checked="" type="checkbox"/>
If YES, specify:	<input type="text"/>		
	If YES, is such a report(s) attached?	N/A	<input type="checkbox"/>
If YES list the specialist reports attached below	<input type="text"/>		
	N/A		

Signature of Specialist:  Date: April 2023

**Please note;** If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated



**Figure 6: Environmental Sensitivity Composite Map**

**8. LAND USE CHARACTER OF SURROUNDING AREA**

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500 m radius around the site.

		NORTH				
		1,3	1,2,3	1,3,17	1,3,17	1,3
		1,2,3	1,2,3	1,3	1,3,7	1,3,35
WEST		1,3, 2, 35	1,2,3		1,3,	1,3,35
		1,3, 2, 35	1,2,3,17	1,3,17,35	1,3	1,3,35
		1,3, 2, 35	1,2,3	1,2,3	1,3,35	1,3,35
				SOUTH		
				EAST		

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial <sup>AN</sup>	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport <sup>N</sup>	23. Train station or shunting yard <sup>N</sup>	24. Railway line <sup>N</sup>	25. Major road (4 lanes or more) <sup>N</sup>
26. Sewage treatment plant <sup>A</sup>	27. Landfill or waste treatment site <sup>A</sup>	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam <sup>A</sup>	34. Small Holdings	
Other land uses (describe):	35. Gravel Access Roads/Routes			

**NOTE:** Each block represents an area of 250 m X 250 m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks

**Note:** More than one (1) Land-use may be indicated in a block

**Please note:** The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

**Have specialist reports been attached**

YES	
X	

If yes indicate the type of reports below

Please refer to **Appendix G** for the following specialist studies:

- Biodiversity Impact Assessment
- Phase 1 Heritage Impact Assessment



## 9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

### BASELINE DESCRIPTION OF THE SOCIAL ENVIRONMENT

The proposed site is located in Ward 73 of Region 2 of the City of Tshwane Metropolitan Municipality (CoTMM) Ward 2 is 1 062 km<sup>2</sup> in extent and is bordered by the Magaliesberg Mountain range to the South and the PWV 9 freeway to the West. The N1-Highway runs through the middle of Region 2 which includes areas such as Hammanskraal, Temba and twelve other areas up to the Tswaing Nature Reserve in the North and the Eastern Boundaries of Winterveld, Soshanguve and Pretoria North in the West.

#### Demographic information

Ward 73 has a total population of 37 922 at an average density of approximately 206 people per kilometre (source: <https://wazimap.co.za>).

#### Economic information

Only 36.5% of people in Ward 2 are employed which is also lower than the national average of 38.57%. The average annual income per household is approximately R30 000 which is almost half the average annual income of households in Gauteng. 32% of households in the Ward are informal dwellings (shacks).

#### Education

School attendance in the ward is 89.6% but currently only 36% of people have matriculated.

#### Basic Services

Approximately 74.3% of households have access to running water. However, only 18.2% of households have formal toilet facilities. 48.6% of households receive refuse removal services.

## 10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
  - (i) exceeding 5 000 m<sup>2</sup> in extent; or
  - (ii) involving three or more existing erven or subdivisions thereof; or
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

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

NO X	
---------	--

If YES, explain:

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

***Refer to Appendix G for the heritage report.***

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

	NO X
	NO X

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

If yes, please attached the comments from SAHRA in the appropriate Appendix

## SECTION C: PUBLIC PARTICIPATION (SECTION 41)

### 1. THE ENVIRONMENTAL ASSESSMENT PRACTITIONER MUST CONDUCT PUBLIC PARTICIPATION PROCESS IN ACCORDANCE WITH THE REQUIREMENT OF THE EIA REGULATIONS, 2014.

To meet the requirements of the EIA Regulations in conducting public participation, the following steps have been undertaken:

- Notifications (via email and sms) have been sent to all identified I&APs and relevant State Departments notifying them of the Draft Basic Assessment that is available to for a 30 day commenting period.
- One (1) site notice was placed at a visible location at the boundary of the site
- One (1) newspaper advertisement has been placed in the Citizen Newspaper;

Please refer to **Appendix E** for proof of the abovementioned actions.

### 2. LOCAL AUTHORITY PARTICIPATION

Local 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. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?

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

If yes, has any comments been received from the local authority?

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

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

Comments on this Draft Basic Assessment Report (BAR) from the CoTMM will be addressed and included in the Final BAR.

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

N/A

### 2. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

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

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

N/A

If "NO" briefly explain why no comments have been received

Comments on this Draft Basic Assessment Report (BAR) from all relevant Stakeholders (including the Competent Authority) will be addressed and included in the Final BAR.

#### **4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS**

The Environmental Assessment Practitioner must ensure that the public participation process 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 and ratepayers associations. 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 flawed.

The EAP must record all comments and respond to each comment of the public/ interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

#### **5. APPENDICES FOR PUBLIC PARTICIPATION**

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below:

Appendix 1 – Proof of site notice **-Wording Attached**

Appendix 2 – Written notices issued as required in terms of the regulations **-Attached**

Appendix 3 – Proof of newspaper advertisements **- Wording Attached**

Appendix 4 – Communications to and from interested and affected parties **-Attached**

Appendix 5 – Minutes of any public and/or stakeholder meetings – **To be included in the Final BAR**

Appendix 6 - Comments and Responses Report – **To be included in the Final BAR**

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report **-To be included in the Final BAR**

Appendix 8 –Comments from I&APs on amendments to the BA Report – **To be included in the Final BAR**

Appendix 9 – Copy of the register of I&APs **-Attached**

## SECTION D: RESOURCE USE AND PROCESS DETAILS

**Note:** Section D is to be completed for the proposal and alternative(s) (if necessary)

### Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives  times  
(complete only when appropriate)

Section D Alternative No.  (complete only when appropriate for above)

## 1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

### Solid waste management

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

YES	<input type="checkbox"/>
X	<input checked="" type="checkbox"/>
1 m <sup>3</sup>	<input type="text"/>

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

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

Solid waste will be generated during the construction phase although it will be a small amount. This waste will be stored in skips to be removed and disposed of by the main contractor at a registered landfill site.

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

The main contractor will dispose of all solid waste at a registered landfill site. The ECO will oversee this operation to ensure compliance.

Will the activity produce solid waste during its operational phase?

YES	<input type="checkbox"/>
X	<input checked="" type="checkbox"/>
1 m <sup>3</sup>	<input type="text"/>

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

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

With no formal municipal waste collection services in this area, landowners in the Dinokeng Game Reserve are making use of a reputable waste contractor for collection and disposal of general solid waste. The waste contractor collects waste from each property and transports it to a community recycling facility in Hammanskraal where recyclables are extracted. Non-recyclable waste is disposed at the Temba Municipal Landfill Site.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

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

N/A

**Note:** 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, 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? 

	<b>NO</b> <b>X</b>
--	-----------------------

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? 

	<b>NO</b> <b>X</b>
--	-----------------------

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.

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

See above

**Liquid effluent (other than domestic sewage)**

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

	<b>NO</b> <b>X</b>
--	-----------------------

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

N/A
-----

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? 

N/A
-----

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

	<b>NO</b> <b>X</b>
--	-----------------------

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

N/A
-----

If yes describe the nature of the effluent and how it will be disposed.

N/A

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority 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? 

	<b>NO</b> <b>X</b>
--	-----------------------

If yes, provide the particulars of the facility:

Facility name:	Kings Hire		
Contact person:	Japie Kroon		
Postal address:	PO Box 2201, Montana Park		
Postal code:	0159		
Telephone:	0861040404	Cell:	
E-mail:	hiring@kingshire.biz	Fax:	

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

N/A

**Liquid effluent (domestic sewage)**

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system? 

	<b>NO</b> <b>X</b>
--	-----------------------

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

N/A
-----

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? 

N/A
-----

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

YES	<input type="checkbox"/>
X	<input checked="" type="checkbox"/>

If yes describe how it will be treated and disposed off.

With no municipal sewer infrastructure in the Dinokeng Game Reserve the Applicant proposes to install Conservancy Tanks which can be used for the disposal of black (sewerage) and grey (bathroom/washing) water. The tank will be emptied by a honey sucker as per the required intervals.



### Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

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

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:

N/A

## 2. WATER USE

Indicate the source(s) of water that will be used for the activity:

Municipal	Directly from water board	<b>Groundwater</b> x	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:

+/-20m<sup>3</sup>

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix – ***Geohydrological Study including borehole yield to be undertaken as part of the Water Use License Application***

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

YES	<input type="checkbox"/>
X	<input checked="" type="checkbox"/>

If yes, list the permits required

Section 21 (a) (g); Water Use Licence

If yes, have you applied for the water use permit(s)?

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

If yes, have you received approval(s)? (attached in appropriate appendix)

### 3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Eskom

If power supply is not available, where will power be sourced from?

The development will utilise "off-grid" solar panels to supplement electricity supply

### 4. ENERGY EFFICIENCY

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

The following energy saving methods has been identified and will be investigated further during the detail design phase for possible implementation for the proposed development:

- Supplementary use of renewable energy (solar);
- The use of energy efficient lighting;
- The use of daylight whenever possible in lieu of artificial lighting;
- Automatic switching off of all electrical appliances at night and times not in use;
- Setting thermostats of water heaters at the most efficient level;
- Insulation of hot water pipes and hot water storage tanks;
- Use of low-flow shower heads; and
- Insulation of windows, walls, ceilings and roofs of permanent structures.

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

The proposed activity will make use of renewable energy (solar) to supplement the main Eskom supply.



## SECTION E: 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 as well as the impacts of not implementing the activity (Section 24(4)(b)(i)).

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

To be included in **Appendix E.6** of the Final Basic Assessment Report

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

(A full response must be provided in the Comments and Response Report that must be attached to this report):

To be included in **Appendix E.6** of the Final Basic Assessment Report

### 2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts:

#### IMPACT IDENTIFICATION AND ASSESSMENT

The potential impacts of the proposed development were identified through a desktop study, a site visit, and specialist studies.

In the Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts.

In general, it is recognised that every development has the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are taken into account during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, and an environmental evaluation.

Previous experience has shown that it is often not feasible or practical to only identify and address possible impacts. The rating and ranking of impacts are often a controversial aspect because of the subjectivity involved in attaching values to impacts.

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.

The classes are rated as follows:

1) No significance

The impact is not substantial and does not require any mitigatory action.

2) Low

The impact is of little importance, but may require limited mitigation.

3) Medium

The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

4) High

The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

The assessment of the impacts was conducted according to a synthesis of criteria as set out below:

<b>Extent</b>	Footprint	The impacted area extends only as far as the activity, such as footprint occurring within the total site area.
	Site	The impact could affect the whole, or a significant portion of the site.
	Regional	The impact could affect the area including the neighbouring farms, the transport routes and the adjoining towns.
	National	The impact could have an effect that expands throughout the country (South Africa).
	International	Where the impact has international ramifications that extend beyond the boundaries of South Africa.
<b>Duration</b>	Short Term	The impact will either disappear with mitigation or will be mitigated through a natural process in a period shorter than that of the construction phase.
	Short-Medium Term	The impact will be relevant through to the end of a construction phase.
	Medium Term	The impact will last up to the end of the development phases, where after it will be entirely negated.
	Long Term	The impact will continue or last for the entire operational lifetime of the development, but will be mitigated by direct human action or by natural processes thereafter.
	Permanent	This is the only class of impact, which will be non-transitory. Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.
<b>Intensity</b>	Low	The impact alters the affected environment in such a way that the natural processes or functions are not affected.

	Medium	The affected environment is altered, but functions and processes continue, albeit in a modified way.
	High	Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.
<b>Probability</b>	Improbable	The possibility of the impact occurring is none, due either to the circumstances, design or experience. The chance of this impact occurring is zero (0%).
	Possible	The possibility of the impact occurring is very low, due either to the circumstances, design or experience. The chances of this impact occurring is defined as 25%.
	Likely	There is a possibility that the impact will occur to the extent that provisions must therefore be made. The chances of this impact occurring is defined as 50%.
	Highly Likely	It is most likely that the impacts will occur at some stage of the development. Plans must be drawn up before carrying out the activity. The chances of this impact occurring is defined as 75%.
	Definite	The impact will take place regardless of any prevention plans, and only mitigation actions or contingency plans to contain the effect can be relied on. The chance of this impact occurring is defined as 100%.

Extent	Duration	Intensity	Probability	Weighting Factor (WF)	Significance Rating (SR)	Mitigation Efficiency (ME)	Significance Following Mitigation (SFM)
Footprint 1	Short term 1	Low 1	Probable 1	Low 1	Low 0-19	High 0,2	Low 0-19
Site 2	Short to medium 2	Low to medium 2	Possible 2	Low to medium 2	Low to medium 20-39	Medium to high 0,4	Low to medium 20-39
Regional 3	Medium term 3	Medium 3	Likely 3	Medium 3	Medium 40-59	Medium 0,6	Medium 40-59
National 4	Long term 4	High 4	Highly Likely 4	Medium to high 4	Medium to high 60-79	Low to medium 0,8	Medium to high 60-79
International 5	Permanent 5	High 5	Definite 5	High 5	High 80-100	Low 1,0	High 80-100

**Assessment parameters with its respective weighting**

### Significant Rating Scale without mitigation

#### Potential Impacts Without Mitigation Measures (WOM)

Following the assignment of the necessary weights to the respective aspects, criteria are summed and multiplied by their assigned weightings, resulting in a value for each impact (prior to the implementation of mitigation measures).

#### **SIGNIFICANT RATING EQUATION**

**Significant Rating (SR) = (Extent + Intensity + Duration) x Probability**

<b>S=0</b>	<b>INSIGNIFICANT</b>	The impact will be mitigated to the point where it is regarded as insubstantial.
<b>SR &lt; 30</b>	<b>LOW (L)</b>	The impact will be mitigated to the point where it is of limited importance.
<b>20&lt;SR&lt;39</b>	<b>LOW- MEDIUM</b>	The impact is of importance, however, through the implementation of the correct mitigation measures such potential impacts can be reduced to acceptable levels.
<b>40&gt; SR &lt; 59</b>	<b>MEDIUM (M)</b>	Notwithstanding the successful implementation of the mitigation measures, to reduce the negative impacts to acceptable levels, the negative impact will remain of significance. However, taken within the overall context of the project, the persistent impact does not constitute a fatal flaw.
<b>60&lt;SR&gt;79</b>	<b>MEDIUM-HIGH</b>	The impact is of major importance but through the implementation of the correct mitigation measures, the negative impacts will be reduced to acceptable levels.
<b>80&lt;SR &gt; 100</b>	<b>HIGH (H)</b>	The impact is of major importance. Mitigation of the impact is not possible on a cost-effective basis. The impact is regarded as high importance and taken within the overall context of the project, is regarded as a fatal flaw. An impact regarded as high significance, after mitigation could render the entire development option or entire project proposal unacceptable.

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

**PROPOSED ACTIVITY: Tourism Facility on Klipdrift 90 JR**

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<b>NEGATIVE IMPACTS</b>			
Potential ground and surface water pollution	Low	<p><b>Construction phase:</b></p> <ul style="list-style-type: none"> <li>• Construction vehicles are to be maintained in good working order, to reduce the probability of leakage of fuels and lubricants;</li> <li>• A walled concrete platform, dedicated store with adequate flooring or bermed (110% capacity) area should be used to accommodate chemicals such as fuel, oil, paint, herbicide and insecticides, as appropriate, in well-ventilated areas;</li> <li>• Storage of potentially hazardous materials should be placed in an areas as agreed with the ECO. These materials include fuel, oil, cement, bitumen etc.;</li> <li>• Sufficient care must be taken when handling these materials to prevent pollution;</li> <li>• Surface water draining off contaminated areas containing oil and petrol would need to be channelled towards a sump which will separate these chemicals and oils;</li> <li>• Oil residue shall be treated with oil absorbent such as Drizit or similar and this material removed to an approved waste site;</li> <li>• Concrete, if used, is to be mixed only, not on exposed soil;</li> <li>• Concrete and tar shall only be mixed on mixing trays and in areas which have been specially demarcated for this purpose;</li> <li>• All concrete and tar that is spilled outside these areas shall be promptly removed by the Contractor and taken to an approved dumpsite;</li> <li>• After all the concrete / tar mixing is complete all waste concrete / tar shall be removed from the batching area and disposed of at an approved dumpsite;</li> <li>• Storm water shall not be allowed to flow through the batching area.</li> <li>• Cement sediment shall be removed from time to time and disposed of in</li> </ul>	Low

		<p>a manner as instructed by the Consulting Engineer;</p> <ul style="list-style-type: none"> <li>• All construction materials liable to spillage are to be stored in appropriate structures with impermeable flooring;</li> <li>• Portable septic toilets are to be provided and maintained for construction crews.</li> <li>• Maintenance must include removal without sewage spillage;</li> <li>• Under no circumstances may ablutions occur outside of the provided facilities;</li> <li>• No uncontrolled discharges from the construction crew camps will be permitted</li> <li>• In the case of pollution of any surface or groundwater by hazardous substances, the Regional Representative of the Department of Water and Sanitation (DWS) must be informed immediately;</li> <li>• Store all litter carefully so it cannot be washed or blown away;</li> <li>• Provide bins for construction workers and staff at appropriate locations, particularly where food is consumed;</li> <li>• The construction site should be cleaned daily and litter removed;</li> <li>• Conduct ongoing staff awareness programs so as to reinforce the need to avoid littering; and</li> <li>• Backfill must be compacted to form a stabilised and durable blanket.</li> </ul>	
<b>Potential ground water pollution</b>	<b>Medium</b>	<p><b><u>Operational Phase:</u></b></p> <ul style="list-style-type: none"> <li>• All structures and infrastructure (especially conservancy tanks) must be designed and maintained.</li> </ul>	<b>Low</b>
<b>Potential soil disturbances and erosion including compaction</b>	<b>Low</b>	<p><b><u>Construction Phase:</u></b></p> <ul style="list-style-type: none"> <li>• The construction phase should preferably take place in the dry winter months.</li> <li>• As much vegetation as possible should remain on site wherever possible to help decrease surface water flow velocity, and increase filtration.</li> <li>• No stockpiles or construction materials may be stored or placed within any drainage line on site, or in</li> </ul>	<b>Low</b>

		<p>areas where water naturally accumulates.</p> <ul style="list-style-type: none"> <li>• Stockpiles may not exceed more than 2m in height.</li> <li>• Stockpiles must not be stored for excessively long periods. If it is found that a stockpile will be stored for long periods then it must not exceed a vertical horizontal ratio or 1:1.5m to prevent compaction.</li> <li>• Any stockpile stored for long periods must be retained in a bermed area.</li> <li>• Stockpiles must be covered during excessively windy conditions.</li> <li>• All foundation excavations should be inspected by a Geotechnical Engineer.</li> </ul>	
<b>Potential soil disturbances and erosion</b>	<b>Medium</b>	<p><b><u>Operational Phase:</u></b></p> <ul style="list-style-type: none"> <li>• All structures and infrastructure must be designed in such a manner that surface water runoff is limited and no concentrated flows are created.</li> <li>• All structures and infrastructure (especially conservancy tanks) must be designed and maintained.</li> </ul>	<b>Low</b>
<b>Vegetation degradation / destruction (Alteration of Natural Habitat)</b>	<b>Low-Medium</b>	<p><b><u>Construction Phase:</u></b></p> <ul style="list-style-type: none"> <li>• The area outside of the development footprint must be demarcated as a no-go area for all construction related activities.</li> <li>• All exotic vegetation must be removed and replaced by suitable indigenous vegetation that is native to the area.</li> <li>• Measures to curb erosion during construction must be implemented</li> <li>• An independent ECO should be appointed to oversee all construction activities;</li> <li>• No open fires is allowed;</li> <li>• Erosion must not be allowed to develop on a large scale before effecting repairs;</li> <li>• Runoff from construction access roads must be managed to avoid erosion and pollution problems;</li> <li>• During the construction phase, measures must be put in place to control the flow of surface water so that it does not impact on the vegetation, i.e., energy dissipaters must be used to prevent scouring and erosion;</li> <li>• All areas susceptible to erosion must be protected and ensure that there is</li> </ul>	<b>Low</b>

		<p>no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas;</p> <ul style="list-style-type: none"> <li>• Areas exposed to erosion due to construction should be vegetated with species naturally occurring in the area;</li> <li>• During construction, the construction area and immediate surroundings should be monitored regularly for emergent invasive vegetation;</li> <li>• All construction vehicles and equipment, as well as construction material should be free of plant material. Therefore, all equipment and vehicles should be thoroughly cleaned prior to access on to the construction site. This should be verified by the ECO; and</li> <li>• During the construction phase hazardous waste should be stored in compliance with regional, national and local legislation.</li> <li>• Marula and Leadwood Trees will be marked prior to construction commencing – this shall be done via steel stakes with tags</li> <li>• Any cleared areas that are no longer or not required for construction activities should be re-seeded with locally sourced seed of suitable species. Bare areas can also be packed with brush removed from other parts of the site to encourage natural vegetation regeneration and limit erosion.</li> <li>• All natural vegetation not required to be removed should be protected against damage.</li> <li>• All cleared areas not used for construction should be rehabilitated.</li> </ul>	
<p><b>Potential vegetation degradation / destruction (including spreading of alien plants)</b></p>	<p><b>Low-Medium</b></p>	<p><b><u>Operational Phase:</u></b></p> <ul style="list-style-type: none"> <li>• Surface water or stormwater must not be allowed to concentrate, or flow down cut or fill slopes without erosion protection measures being in place.</li> <li>• All alien seedlings and saplings must be removed as they become evident for the duration of the project;</li> <li>• Effective alien invasive plant management and eradication measures should be implemented on an ongoing basis</li> <li>• Manual / mechanical removal is preferred to chemical control.</li> </ul>	<p><b>Low</b></p>



		<ul style="list-style-type: none"> <li>• Only indigenous vegetation will be allowed to be used on site</li> </ul>	
Potential loss of faunal and avifaunal species	Low-Medium	<p><b><u>Construction Phase:</u></b></p> <ul style="list-style-type: none"> <li>• No animal may be hunted, trapped, snared or captured for any purpose whatsoever. Workers must be made aware of the Animal Protection Act (Act 71 of 1962), as well as the penalties that will incur should an animal be intentionally harmed, or harmed as a result of negligence.</li> <li>• Speed of vehicles should be limited to allow for sufficient safety margins.</li> <li>• No animals may be brought into the construction site, or camp.</li> <li>• The construction site must be kept clean and litter free to prevent attracting vermin or pest species.</li> <li>• Construction camps should be placed on already disturbed areas. Staff will not be allowed to stay overnight.</li> </ul>	Low
Potential loss of faunal and avifaunal species	Low	<p><b><u>Operational Phase:</u></b></p> <ul style="list-style-type: none"> <li>• No animal may be hunted, trapped, snared or captured for any purpose whatsoever.</li> <li>• Speed of vehicles should be limited to allow for sufficient safety margins.</li> <li>• After construction, open spaces (in and around parking areas) should be landscaped with indigenous plant species that are native to the area and that will be beneficial to faunal species such as bats and birds.</li> <li>• The development must be kept clean and maintained for reasons stated in the last bullet point above.</li> </ul>	Low
Impacts on ambient air quality (dust, and noise generation)	Low-Medium	<p><b><u>Construction Phase</u></b></p> <ul style="list-style-type: none"> <li>• Provide a complaint register on site where complaints can be made. This register should enable effective</li> </ul>	Low

		<p>communication of complaints details of steps taken to resolve complaints.</p> <ul style="list-style-type: none"> <li>• Clearly display the contact details of the environmental site office and manager at the site entrance.</li> <li>• Ensure an adequate water supply on the site for effective dust particulate matter suppression.</li> <li>• Impose and regulate a speed limit of 30 km/h on the site at all times.</li> <li>• Ensure that all vehicles are switched off when stationary- no vehicles should be idling for extended period.</li> <li>• Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.</li> <li>• Bonfires and burning of waste materials is prohibited.</li> <li>• Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in appropriate storage with suitable emission control systems to prevent escape of material and overfilling during delivery.</li> <li>• For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.</li> <li>• Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport</li> <li>• Construction site yards and other noisy fixed facilities should be located well away from noise sensitive areas adjacent to the development site.</li> <li>• Construction activities should be limited to 07:00 to 17:00 daily.</li> <li>• Machines in intermittent use should be shut down in the intervening periods between active working or throttled down to a minimum.</li> <li>• In general, construction activities should meet the noise standard requirements of the Occupational Health and Safety Act (Act No 85 of 1993).</li> <li>• Construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA should wear ear protection equipment.</li> </ul>	
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Impacts on ambient air quality (dust, and noise generation)	Low	<p><b><u>Operational Phase:</u></b></p> <ul style="list-style-type: none"> <li>• Comply to all CoTMM by laws and Dinokeng Game Reserve Management Rules and Regulations</li> <li>• No wedding venues (or similar infrastructure for mass gatherings) will be allowed.</li> </ul>	Low
Light Pollution	Low-Medium	<p><b><u>Operational Phase:</u></b></p> <ul style="list-style-type: none"> <li>• All lighting to be installed must be down light luminaries</li> <li>• No floodlights should be installed. Only directional down lighting of pathways and areas around structures should be allowed.</li> <li>• Game lodge management regulations should be implemented in terms of directional lighting in a natural environment.</li> </ul>	Low
Potential Impacts on Heritage Resources	Low	<p><b><u>Construction Phase</u></b></p> <ul style="list-style-type: none"> <li>• If an artefact or grave on site is uncovered, work in the immediate vicinity must be stopped immediately.</li> <li>• The contractor must take reasonable precautions to prevent any person from removing or damaging any such article and must immediately, upon discovery thereof, inform the Client or ECO of such discovery. A heritage expert will need to be contacted for the way forward.</li> <li>• Work may only resume once clearance is given in writing by the archaeologist.</li> </ul>	Low
Potential impacts on traffic in the area	Low	<p><b><u>Construction Phase</u></b></p> <ul style="list-style-type: none"> <li>• Manage the increase in construction traffic in terms of congestion, road surface damage, safety concerns, dust and erosion.</li> <li>• All vehicular traffic on site should adhere to farm road safety measures;</li> <li>• All vehicles should be road worthy;</li> <li>• Only designated roads should be used for construction vehicles; and</li> <li>• Ensure drivers and operators of equipment are familiar with the safety policies and regulations.</li> </ul>	Low
Visual Impact/Change in Landscape Character	Low	<ul style="list-style-type: none"> <li>• Natural trees, shrubbery and grass species must be retained wherever possible.</li> <li>• Buildings should be painted a colour with a tone similar to that of the prevailing landscape.</li> </ul>	Low

Positive Impacts	Significance rating
Promotion of tourism in the Dinokeng Game Reserve	High
Creation of employment and un-skill opportunities (during the Construction as well as the Operational Phases)	High
Increase in revenue for the Dinokeng Big 5 Game Reserve and CoTMM (Levy, Rates and Taxes)	High

### 3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

**Decommissioning of the proposed tourism facility is not anticipated at this stage.**

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Please refer to **Appendix G** for the following specialist studies:

- Ecological Statement
- Phase 1 Heritage Impact Assessment

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

### 4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

Cumulative impacts result from actions which may not be significant on their own but which are significant when added to the impact of other similar actions. The anticipated impacts resulting from the construction and implementation of the proposed activity includes:

- An increase in vehicular traffic in Dinokeng (especially over weekends)
- Increased dust generation (-) – mostly during construction
- Increased light pollution (-) – during the operational phase
- Increased accumulative noise levels during construction (temporary) and during the operational phase (at certain intervals, especially over weekends) (-)
- Cumulative displacement of resident fauna species (-)
- Visual Impact due to the increased infrastructure in Dinokeng (-)
- Social Upliftment and Economic Recovery Post Covid-19 (+)
- Increase in accommodation options in Dinokeng (+)
- Investment in Dinokeng Game Reserve as per Gauteng Economic Development Plan (Flagship Tourism Destinations) (+)

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<b>NEGATIVE IMPACTS</b>			
An increase in vehicular traffic in Dinokeng (especially over weekends)	Medium	Refer to measures above	Medium
Increased dust generation (-) – mostly during construction	Medium-Low	Refer to measures above	Low
Increased light pollution (-) – during the operational phase	Medium	Refer to measures above	Medium
Increased accumulative noise levels during construction (temporary) and during the operational phase (at certain intervals, especially over weekends) (-)	Medium	Refer to measures above	Medium
Cumulative displacement of resident fauna species (-)	Medium-Low	Refer to measures above	Low
Visual Impact (-)	Medium-Low	Refer to measures above	Medium-Low
<b>Positive Impacts</b>	<b>Significance rating</b>		
Social Upliftment and Economic Recovery Post Covid-19 (+)	High		
Increase in accommodation options in Dinokeng (+)	High		
Investment in Dinokeng Game Reserve as per Gauteng Economic Development Plan (Flagship Tourism Destinations) (+)	High		

## 5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal 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.

### PROPOSED ACTIVITY: Tourism Facility on Klipdrift 90 JRJR

Although a number of potential short and long-term environmental and social impacts can be expected during the construction and operational phases of the Proposed Activity, it was found that the significance of these impacts could be reduced through the implementation of appropriate mitigation measures. Based on the outcome of the impact assessment and associated specialist investigations, there are no evident fatal flaws that would prevent this development from being authorised. The proposed activity will also have positive impacts on the local economy and social structures.

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**No-go (compulsory)**

Due to the limited footprint and infrastructure proposed for the project, only the no-go alternative is considered. If the Department rejects the Application for Environmental Authorisation the No-go Alternative will be adopted.

## 6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

### PROPOSED ACTIVITY: Tourism Facility on Klipdrift 90 JR

Potential impacts:	Significance rating of impacts:	Significance rating of impacts after mitigation:
<b>NEGATIVE IMPACTS (CONSTRUCTION AND OPERATIONAL PHASES)</b>		
Potential ground and surface water pollution Construction phase	Low	Low
Potential ground water pollution Operational Phase	Medium	Low
Potential soil disturbances and erosion including compaction Construction Phase	Low	Low
Potential soil disturbances and erosion Operational Phase	Medium	Low
Vegetation degradation / destruction (Alteration of Natural Habitat) Construction Phase	Low-Medium	Low
Potential vegetation degradation / destruction (including spreading of alien plants) Operational Phase	Low-Medium	Low
Potential loss of faunal and avifaunal species Construction Phase	Low-Medium	Low
Potential loss of faunal and avifaunal species Operational Phase	Low	Low
Impacts on ambient air quality (dust, and noise generation) Construction Phase	Low-Medium	Low
Impacts on ambient air quality (dust, and noise generation) Operational Phase	Low	Low
Light Pollution Operational Phase	Low-Medium	Low
Potential Impacts on Heritage Resources Construction Phase	Low	Low
Potential impacts on traffic in the area Construction Phase	Low	Low
Visual Impact/Change in Landscape Character Construction and Operational Phase	Low	Low
<b>POSITIVE IMPACTS</b>		
Promotion of tourism in the Dinokeng Game Reserve		High
Creation of employment and un-skill opportunities (during the Construction as well as the Operational Phases)		High

Increase in revenue for the Dinokeng Big 5 Game Reserve and CoTMM (Levy, Rates and Taxes)	<b>High</b>	
<b>NEGATIVE IMPACTS (CUMULATIVE IMPACTS)</b>		
An increase in vehicular traffic in Dinokeng (especially over weekends)	<b>Medium</b>	<b>Medium</b>
Increased dust generation (-) – mostly during construction	<b>Medium-Low</b>	<b>Low</b>
Increased light pollution (-) – during the operational phase	<b>Medium</b>	<b>Medium</b>
Increased accumulative noise levels during construction (temporary) and during the operational phase (at certain intervals, especially over weekends) (-)	<b>Medium</b>	<b>Medium</b>
Cumulative displacement of resident fauna species (-)	<b>Medium-Low</b>	<b>Low</b>
Visual Impact (-)	<b>Medium-Low</b>	<b>Medium-Low</b>
<b>POSITIVE IMPACTS</b>		
Social Upliftment and Economic Recovery Post Covid-19 (+)	<b>High</b>	
Increase in accommodation options in Dinokeng (+)	<b>High</b>	
Investment in Dinokeng Game Reserve as per Gauteng Economic Development Plan (Flagship Tourism Destinations) (+)	<b>High</b>	

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

The Proposed Activity is entirely in line with the Dinokeng Big-5 Game Reserve initiative earmarked for this area from a Local as well as Provincial Spatial Planning point of view. The facility, with its chalet and camping accommodation, will attract eco-tourists who are generally known to have a preference for small-scale developments in undisturbed natural areas with a low-impact that is based on responsible and sustainable practices.

Although a number of potential short and long-term environmental and social impacts can be expected during the construction and operational phases of the Proposed Activity, it was found that the significance of these impacts could be reduced through the implementation of appropriate mitigation measures.



## 7. SPATIAL DEVELOPMENT TOOLS

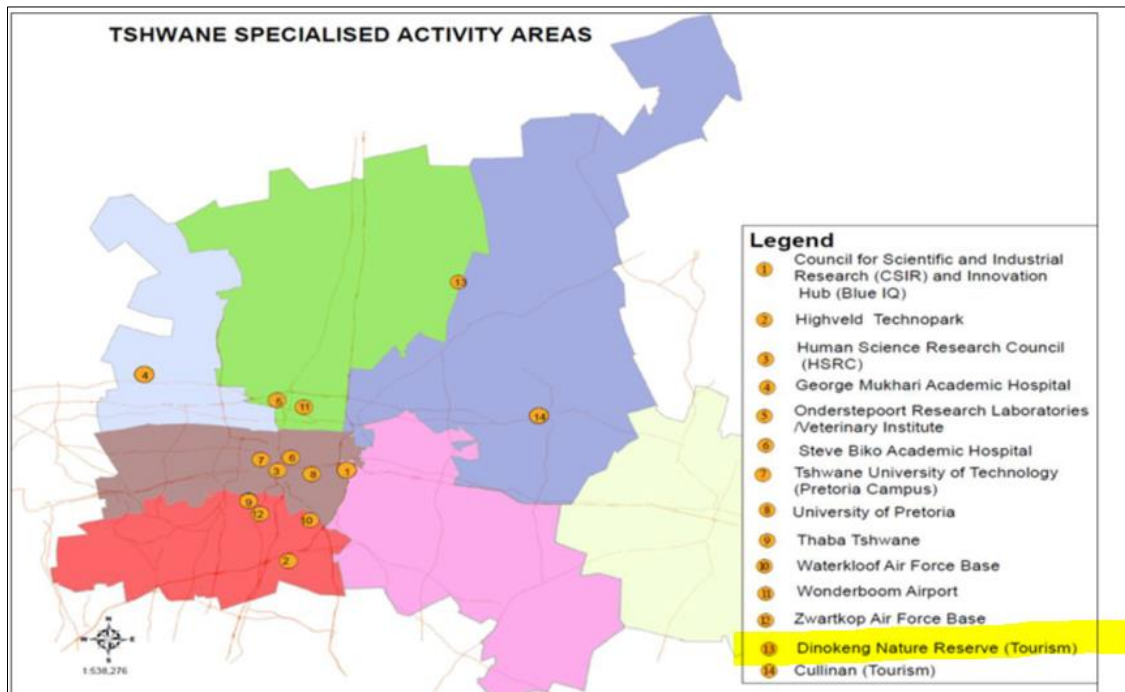
Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

### 1. City Of Tshwane Metropolitan Integrated Development Plan (IDP) 2021 -2024

The Dinokeng project is listed as part of the Specialized Activity Areas - Tourism Node Area

### 2. City Of Tshwane Metropolitan Spatial Development Framework (CTMSDF) 2021

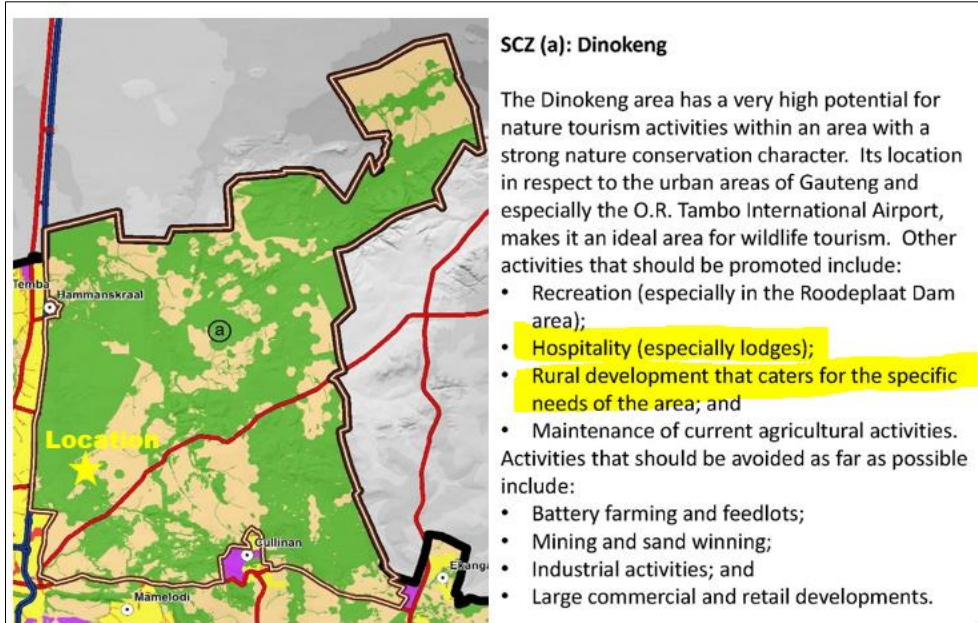
The Dinokeng project is listed as part of the Specialized Activity Areas - Tourism Node Area



### 3. The Gauteng Provincial Environmental Management Framework (GPEMF) - 2010

Five Environmental Management Zones (EMZ) and Special Control Zones were identified and adopted by the Gauteng MEC in May 2015. According to the GPEMF the proposed project area falls within the (a) Dinokeng Special Control Zone. This is an area with high potential for nature tourism activities with a strong conservation character.

The EMF process integrates stakeholders from both physical and virtual environments and has a specific goal of creating a self-sustaining tourism economy in the case of Dinokeng Game Reserve.



#### 4. Gauteng Department Of Economic Development – BLUE IQ

The Blue IQ initiative (1997) of the Gauteng Provincial government contribute significantly towards the specialized activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyze sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on four growth areas:

- ✓ Business Tourism
- ✓ High value-added Manufacturing (high value-add)
- ✓ Logistics
- ✓ Information and Communication Technology (ICT)
- ✓ The Rosslyn Automotive Cluster (Industrial Estate), Innovation Hub (Research, Innovation and Technology) and **Dinokeng Nature Reserve (Tourism node)** are Blue IQ projects that have been established within Tshwane. The formal planning of Dinokeng and negotiations with landowners began in early 2000, and Dinokeng Game Reserve was officially opened on September 22, 2011

#### 5. Spatial Planning and Land Use Management Act - 2013

Based on town planning development principles set out in SPLUMA, the activity will commence on the grounds of the following principles:

##### 5.1 Spatial Sustainability

- ✓ **Development In Line With Services Systems:** The development places no demand on existing services networks and by its very nature, can function independently with available informal resources. Utilization is expected to be low and will seldom reach full capacity.
- ✓ **Protection of Prime Resources:** The area is not conducive for any agriculture, since the management rules of the Dinokeng Reserve prohibits activities that are in conflict with the conservation principles. From a conservation point of view, the land has the highest protection status, being a registered reserve while the development will, by agreement with the Dinokeng Management Association, have a very small footprint of less than 1% of the land area.
- ✓ **In Line with Market Trends:** The facilities to be provided are highly in demand for recreation purposes. With growing urban populations, as well as popularity by

international travellers, the demand for recreation and “Big Five” opportunities increase.

- ✓ **Limit Urban Sprawl:** The usage of the site for ongoing game reserve purposes and the strengthening of conservation principles does not in any way promote urban development. To the contrary, it prevents urban development in the region.

#### 5.2 Spatial Efficiency

- ✓ **Optimizes Use Of Existing Space:** The proposed development does not utilize valuable land that will be needed for housing. It also utilizes space that is already proclaimed nature reserves, with facilities that enhances the potential of the Dinokeng Reserve.

#### 5.3 Good Administration

- ✓ **Application Meet All Requirements/Regulations/Policies:** The proposal is in line with current RSDF (Regional Spatial Development Framework) guidelines and will not be obstructive for future development in the area.
- ✓ **Follows A Transparent Process:** All requirements of advertising and public participation procedures are adhered to.

### **6. Dinokeng Game Reserve Environmental Management Plan (2014) – Development Densities**



The primary objective regarding developments is that development densities and the development and management of all infrastructure will be guided by norms and guidelines that will ensure optimum use, maximum visitor satisfaction and cost-effective management of the DGR for the benefit of its stake holders.

*“The combined density of private and commercial developments on both private and State land should be limited to a development footprint of 1% of the area of the DGR.”*

*“For any new developments, an EIA must be undertaken according to DGR guidelines.”*

The proposed application’s footprint is in line with the above principles.

## **8. RECOMMENDATION OF THE 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 as bound by professional ethical standards and the code of conduct of EAPASA).

<b>YES</b> <b>X</b>	<input checked="" type="checkbox"/>
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If “NO”, indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

<b>N/A</b>
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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:

<p>The EAP recommends that should an positive Environmental Authorisation be granted by the GDARD, it should be subject to the following:</p> <ul style="list-style-type: none"><li>• All mitigation measures in Section E of the Basic Assessment and recommendations made by the specialist studies (<b>Appendix G</b>) should be adhered to during the Construction and Operational Phases of the development.</li><li>• All recommendations and mitigation measures in the Environmental Management Programme (EMPr) (<b>Appendix H</b>) must be complied with.</li></ul>
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- A Water Use Registration Licence terms of the National Water Act, 1998 (Act No. 36 of 1998) [NWA] must be obtained from the Department of Water and Sanitation (DWS) for applicable water use(s).
- Section 38 approval in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) [NHRA] must be obtained from the Provincial Heritage Resources Agency of Gauteng (PHRAG).
- An Environmental Control Officer (ECO) must be appointed during the construction phase to ensure environmental compliance.

## 9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT

### **AS PER NOTICE 891 OF 2014 GUIDELINE ON NEED AND DESIRABILITY IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS**

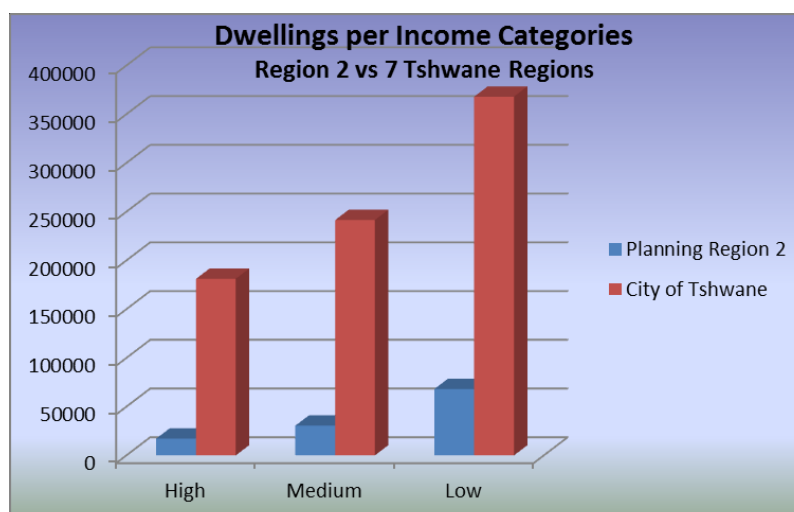
From a strategic point of view the Proposed Activity is in line with the constitutional goal as described in Section 24 of the Constitution of South Africa No. 108 of 1996 which states that:

*“...everyone has the right-*  
*(a) to an environment that is not harmful to their health or well-being;*  
*(b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that;*  
*(c) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development”*

The Dinokeng Big 5 Game Reserve (DGR) is a Blue IQ initiative established by the Gauteng Provincial Government, with the objective of establishing a premier tourism destination close to urban Gauteng. The project aims to promote economic growth, job creation and social upliftment through conserving and developing the historical, natural and cultural heritage of the area.

The DGR’s location makes it the ideal holiday destination for local tourists (who cannot travel far on congested highways over weekends and long weekends) as well as international tourists (being close to OR Tambo and Lanseria International Airports).

The DGR falls within Region 2 of the City of Tshwane Metropolitan Municipality. According to CoTMM’s statistics – Ward 2’s economic activity and income per household is considerably weaker than other wards regions in the metropolitan. Development of the tourism sector (DGR) will increase economic growth and offer employment within Region 2.



The Proposed Activity aims to attract eco-tourists who are generally known to have a smaller impact on the environment than the rest of the tourism sector. Although a number of potential short and long-term environmental and social impacts can be expected during the construction and operational phases of the Proposed Activity, it was found that the significance of these impacts could be reduced through the implementation of appropriate mitigation measures.

The activity is in line with the following spatial development tools:

- City Of Tshwane Metropolitan Integrated Development Plan (IDP) 2021 -2024
- City Of Tshwane Metropolitan Spatial Development Framework (CTMSDF) 2021
- The Gauteng Provincial Environmental Management Framework (GPEMF)
- Gauteng Department Of Economic Development – BLUE IQ
- Spatial Planning and Land Use Management Act
- Dinokeng Game Reserve Environmental Management Plan (2014) – Development Densities

## 10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED (CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

The Environmental Authorisation (EA) is required for 15 years.

## 11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

(must include post construction monitoring requirements and when these will be concluded)

If the EAP answers “Yes” to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached

YES  
X

## SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)* - **Attached**

Appendix B: Photographs - **Attached**

Appendix C: Facility illustration(s) - **Attached**

Appendix D: Route position information – **N/A**

Appendix E: Public Participation information – **Attached**

Appendix F: Service letters from municipalities, water supply information – **N/A**

Appendix G: Specialist reports - **Attached**

Appendix H: EMPr - **Attached**

Appendix I: Other information – **DEA Screening Report**

## CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.