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 Reg No: 1987/005873/07

Our Reference : P1145

Date: 03/04 August 2011

TO: S.A.H.R.A.  
 .....  
 .....  
 .....

SA HERITAGE RESOURCES AGENCY  
 RECEIVED  
 30 AUG 2011

PER HAND

**DFA APPLICATION FOR CONSIDERATION BY THE LIMPOPO TRIBUNAL: PROPOSED DEVELOPMENT AREA THE REMAINDER OF THE FARM HANOVER 181 KQ THE REMAINDER OF PORTION 3 OF THE FARM GROENFONTEIN 207 KQ AND THE FARM KEEROM 208 KQ**

Application is herewith made in terms of Section 49 as well as Regulation 21 of the Development Facilitation Act, 1995 (Act 67 of 1995) for the establishment of a land development area for a private game farming estate development.

We hereby submit a notice of the application as per the requirements of the Development Facilitation Act (67 of 1995). Attached are the following:

- Cover letter;
- Notice;
- Application Form;
- Motivating Memorandum;
- Locality Plan;
- Layout Plan; and
- Annexure HERITAGE REPORT (If applicable)

Please note that the final date for comments/submissions as per the notice is 26 August 2011.

Hope you find the above in order.

Regards

J. Barnard

For CityScope Town Planners

Received By: ESTHER ON BEHALF OF LIMPOPO OFFICE  
 Date: 03 AUGUST 2011



## **NOTIFICATION TO BE GIVEN TO PERSONS OR BODIES**

### **NOTICE TO:**

### **NOTICE OF A LAND DEVELOPMENT AREA APPLICATION**

Daniel Gerhardus Saayman from CityScope Town Planners on behalf of Matswani Game Farm (Pty) Ltd, has lodged an application in terms of Section 49 as well as Regulation 21 of the Development Facilitation Act, 1995 (Act 67 of 1995) for a the establishment of land development area in terms of the Development Facilitation Act 1995. The application is for the establishment of a land development area on part of the Remainder of the farm Hanover 181 KQ, Remainder of Portion 3 of the farm Groenfontein 207 KQ and the Farm Keerom 208 KQ, Lephalale Local Municipality, Limpopo Province.

The development will consist of a private game farming estate development to be known as Matswani Game Farm. The application consists of two parts namely the legalization of the exiting resort development as well as the proposed addition to the existing resort facilities. The existing development consist of 1 residence, 1 lodge (8 rooms), 11 chalets (30 visitors), 4 staff houses, recreation areas consisting of a museum, trophy display, restaurant, kitchen, bar, wine cellar, lounge and entertainment deck, office, shop and ancillary uses. The proposed addition to the resort will consist of 68 (sixty eight) new portions to accommodate self-catering lodges as well as an expansion of the existing recreational areas, office, shop and ancillary uses. It is proposed that the three application properties be consolidated where-after proposed new subdivisions will accommodate the above land uses.

The relevant plans, documents and information are available for inspection at the office of the Designated Officer: Office No. 323, Hensa Building, c/o Rabe and Landros Mare Streets, Polokwane; the offices of City Scope Town Planners: 249 Odendaal Street, Meyers Park, Pretoria; application site: Matswani Game Farm and the office of the Municipal Manager: Lephalale Civic Centre on the corner of Joe Slovo and Douwater roads, Onverwacht, Lephalale for a period of 21 days from 05 Augustus 2011. Information will further be available at an public information session to be held at the application site namely Matswani Game Farm on 17 August 2011 from 13:00 to 19:00.

The application will be considered at a Tribunal hearing to be held at application site namely the Matswani Game farm situated on the Hermanusdorings Road on 14 October 2011 at 10:00 and the pre-hearing conference will be held at the same venue on 08 September 2011 at 10:00. Directions obtainable from CityScope Town Planners at the contact details below.

Any person having an interest in the application should please note:

1. You may, within a period of 21 (twenty one) days from the date of the first publication of this notice (5 August 2011), provide the Land Development Applicant with your written representation in support of the application or any other written representation not amounting to an objection, in which case you are required to attend the tribunal hearing; or
2. If your comments constitute an objection to any aspect of the land development

application, you must appear in person or through a duly authorized representative before the Tribunal at the pre-hearing conference. Any written objection or representation must state the name and address of the person or body making the objection or representation, the interest that such person or body has in the matter, and the reasons for the objection or representation, and must be delivered to the Designated Officer and Land Development Applicant at his or her address set out below within the said period of 21 days.

You may contact the Designated Officer if you have any queries at 323, Hensa Building, c/o Rabe and Landros Mare Streets, Polokwane or Private Bag X9485, Polokwane, 0700. Tel: 015 284 5354 or [NetshitomboniHT@jimdlgh.gov.za](mailto:NetshitomboniHT@jimdlgh.gov.za)

**Land Development Applicant:** CITYSCOPE TOWN PLANNERS  
PO Box 72780, Lynnwood Ridge 0040, 249 Odendaal Street, Meyers Park, Pretoria  
Tel: 012-997-0822; Fax: 086-622-6910. E-Mail: [barnardj@cityscope.co.za](mailto:barnardj@cityscope.co.za)

**Final date of representation or objection: 26 August 2011**  
**Tribunal Reference: LH 12/1/4/3/1/2/5/14(DO)**

**DFA APPLICATION**  
**MEMORANDUM FOR CONSIDERATION**  
**BY THE LIMPOPO TRIBUNAL**  
**PROPOSED DEVELOPMENT AREA ON:**

- **THE REMAINDER OF THE FARM HANOVER 181 KQ**
- **THE REMAINDER OF PORTION 3 OF THE FARM GROENFONTEIN 207 KQ**
- **THE FARM KEEROM 208 KQ**

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## 1. INTRODUCTION

### 1.1 Application

Application is herewith made in terms of Section 49 as well as Regulation 21 of the Development Facilitation Act, 1995 (Act 67 of 1995) for the establishment of a land development area for a private game farming estate development.

### 1.2 Property Description

The description of the property is as follows:

- **The Remainder of the farm Hanover 181 KQ**
- **The Remainder of Portion 3 of the farm Groenfontein 207 KQ**
- **The Farm Keerom 208 KQ**

### 1.3 Submission of the Application

The application is submitted to the Limpopo Province Development Tribunal's Registrar for the Development Facilitation Act. The local authority for the particular region is the Lephalale Local Municipality. The application was also submitted to the municipality for comment.

### 1.4 The Description and Purpose of the Application

This application is made in order to obtain approval for a private game farming estate development to be known as Matswani Game Farm. The application consists of **two parts** namely the legalization the exiting development as well as the proposed addition to the existing facilities. It is envisaged that the approval may consist of the following proposed sections:

- (A) The consolidation of the following properties (Plan No P1145/S1):
  - The Remainder of the farm Hanover 181 KQ
  - The Remainder of Portion 3 of the farm Groenfontein 207 KQ
  - The Farm Keerom 208 KQ
- (B) The subdivision of a Portion A, Portion B and Portion C of the consolidated farm as mentioned in paragraph (A) above (Plan No P1145/S1):
- (C) Approval of the Settlement Plan (Plan No P1145/2) (**the existing development**) (**Annexure L**) with the new subdivisions indicated over the area of the existing lodge, consisting of 2 new portions (portions of Portion A):
  - One 2000 m<sup>2</sup> full title portion ("Residential 1" zoning) for a residence.

- One portion over existing lodge to be legalized with a “Special” zoning including the following land use elements:
    - 1 Lodge consisting of 8 rooms and includes kitchen and bar facilities;
    - 11 Chalets consisting of two and four bed units to cater for a maximum of 30 beds.
    - 4 Staff housing units for the accommodation of employees of the game farm;
    - 2 Recreation areas consisting of a museum with trophy display, restaurant, kitchen, bar, wine cellar, lounge and entertainment deck jointly accommodating 72 guests;
    - 1 Office for purposes of management;
    - 1 Shop for the supply of curios and basic consumables to the guests;
    - 6 Stores for storage of all related equipment, furniture and stock;
    - 1 Workshop for all related maintenance; and
    - Other related uses including a butchery, housekeeping/laundry, ablution, lapa’s and covered parking.
- (
- (D) Approval of the Settlement Plan (Plan No P1145/2) (**Annexure L**)(**the proposed addition to the development**) with the new subdivisions indicated thereon, consisting 76 new portions (portions of Portion B):
    - Sixty eight (68) 1500 m<sup>2</sup> full title portions to accommodate lodges as self-catering units to cater for a maximum of 340 visitors (“Residential 1” zoning).
    - Six (6)portions to establish new supporting rights for the lodges (“Special” zoning) including the following land use elements:
      - Recreation areas supplementing the 68 lodges above consisting of a Bar, Lounge, Deck, Pool and recreational facilities;
    - One portion to establish new rights to support the new self catering lodges (“Special” zoning) including the following land use elements:
      - 1 Office for purposes of management of the establishment;
      - 1 Shop for the supply of curios and basic consumables to the guests;
      - 5 Stores for all related storage (of which 1 is existing);
      - 1 Workshop for all related maintenance; and
      - Other related uses including a butchery, housekeeping/laundry, ablution, lapa’s and covered parking.
- (

- One portion measuring 5000m<sup>2</sup> (Portion C) to establish new supporting rights (“Special” zoning) including the following land use elements:
    - 8 Staff housing units for the accommodation of employees of the game farm.
  - The remaining portion is proposed as a “Private Open Space” zoning including the following land use elements:
    - One (1) manager’s residences (gross buildable area of 1000m<sup>2</sup> total);
    - An entrance gate and access control; and
    - Game farm and conservation related uses including stores, service infrastructure ect.
- (E) Approval of the proposed Conditions of Establishment (Annexure R).
- (F) Approval of the proposed Amendment Scheme (Annexure S).
- (G) Approval for the registration of new servitudes that will provide access and services to all the portions as indicated on the Settlement Plan.
- (H) Approval of the development to be phased.

## 2. PARTIES TO THE APPLICATION

### 2.1 Applicant

Daniel Gerhardus Saayman was nominated, constituted and appointed to in terms of a Special Power of Attorney signed by the property owner as named in paragraph 2.2 to apply to the relevant authorities for the settlement areas. **See Company Resolution and Special Power of Attorney attached as Annexure A.**

The developer is Matswani Game Farm (Pty) Ltd (also the registered owner as indicated below) appointed Daniel Gerhardus Saayman (Director of CityScope Town Planners) to facilitate the application process on behalf of the property owner.

A project team as listed under paragraph 2.3 was appointed to support the application process.

## 2.2 Registered Owners

The ownership of the application properties is as follows:

	Property Description	Owner
1	The Remainder of the farm Hanover 181 KQ	Matswani Game Farm (Pty) Ltd
2	The Remainder of Portion 3 of the farm Groenfontein 207 KQ	Matswani Game Farm (Pty) Ltd
3	The Farm Keerom 208 KQ	Matswani Game Farm (Pty) Ltd

## 2.3 Professional Team

The following professional companies constitute the project team:

No	Discipline	Detail
1	Attorneys/Conveyancers	<b>Ivan Pauw and Partners</b> P.O. Box 56834, Arcadia 0007 Tel: 012-369-9180; Fax: 012-361-5591 E: <a href="mailto:mpho@ippartners.co.za">mpho@ippartners.co.za</a>
2	Town Planning Consultant	<b>CityScope Town Planners (Pty) Ltd</b> P.O. Box 72780 Lynnwood Ridge, 0040 Tel 012-997-0822; Fax: 086-622-6910 E: <a href="mailto:barnardj@cityscope.co.za">barnardj@cityscope.co.za</a>
3	Environmental Consultant and Project Managers	<b>Earth Inc Environment and Development Consultants</b> P.O. Box 14312, Lyttleton, 0140 Tel: 012-667-5742; Fax: 086-660-1149 E: <a href="mailto:info@earthinc.co.za">info@earthinc.co.za</a>
4	Consulting Engineers (Civil)	<b>Nyeleti Consulting Engineers</b> P.O. Box 35158, Menlo Park 0102 Tel: (012) 361 3629; Fax: (012)-361-3525 E: <a href="mailto:info@nyeleti.co.za">info@nyeleti.co.za</a>

5	Land Surveyors/Arial Work	<b>Azur Aerial Work CC</b> P.O. Box 1214, Silverton 0127 Tel: 012-803-0346; Fax: 012-803-6059 <a href="mailto:azur@global.co.za">azur@global.co.za</a>
6	Geotechnical Consultant	<b>The Geotechnical Hub (Pty) Ltd</b> P.O. Box 36114, Menlo Park, 0102 Tel: 012-807-2366; Fax: 086-665-0561 E: <a href="mailto:thegeoaed@gmail.com">thegeoaed@gmail.com</a>
7	Geo Hydrologist	<b>Africon (Pty) Ltd trading as Aurecon</b> P.O. Box 905, Pretoria, 0001 Tel: 012-643-9026; Fax: 086-602-0639 E: <a href="mailto:Mannie.Levin@af.aurecongroup.com">Mannie.Levin@af.aurecongroup.com</a>
8	Vegetation and Fauna	<b>Ecoagent</b> Tel: 012-460-2525; Fax: 012-460-2525 E: <a href="mailto:george@ecoagent.co.za">george@ecoagent.co.za</a>
9	Agricultural Potential Specialist	<b>Rehab Green CC</b> P.O. Box 12636, Queenswood, 0121 Tel: 082-560-0592; Fax: 086-678-1690 E: <a href="mailto:rehabgreen@ee-sa.com">rehabgreen@ee-sa.com</a>
10	Heritage Consultant	<b>J van Schalkwyk, Heritage Consultant</b> Postal Address: 62 Coetzer Avenue, Monument Park, 0181 Mobile: 076 790 6777 Fax: 012 347 7270 E: <a href="mailto:jvschalkwyk@mweb.co.za">jvschalkwyk@mweb.co.za</a>

#### 2.4 Public Participation

Public participation in terms of the National Environmental Management Act (NEMA) included the following: The project was advertised in the local press as per the Limpopo

Department of Economic Development, Environment and Tourism (LEDET) requirements, in the "Die Pos", the widest read local paper, on 20 June 2008, and on site for a 30 day period, also allowing for an additional 7 days for return comments by any interested and affected parties. Site notices were erected around the site at three locations Notices (in the form of Background Information Documents) were distributed to all residents and neighboring properties that could be directly affected by the proposed development on the 20th of June 2008. All requirements in terms of NEMA regarding public participation were complied with. Within the comment period as per above, no comments were received from residents, adjacent to the proposed activity.

A transparent process will be followed in terms of the DFA in order to inform all the stakeholders about the relevant detail pertaining to the development proposal. Input from the stakeholders will be incorporated into the application and proposals can be adjusted in order to accommodate constructive contributions. The designated officer will inform the applicant as to all the parties to be consulted.

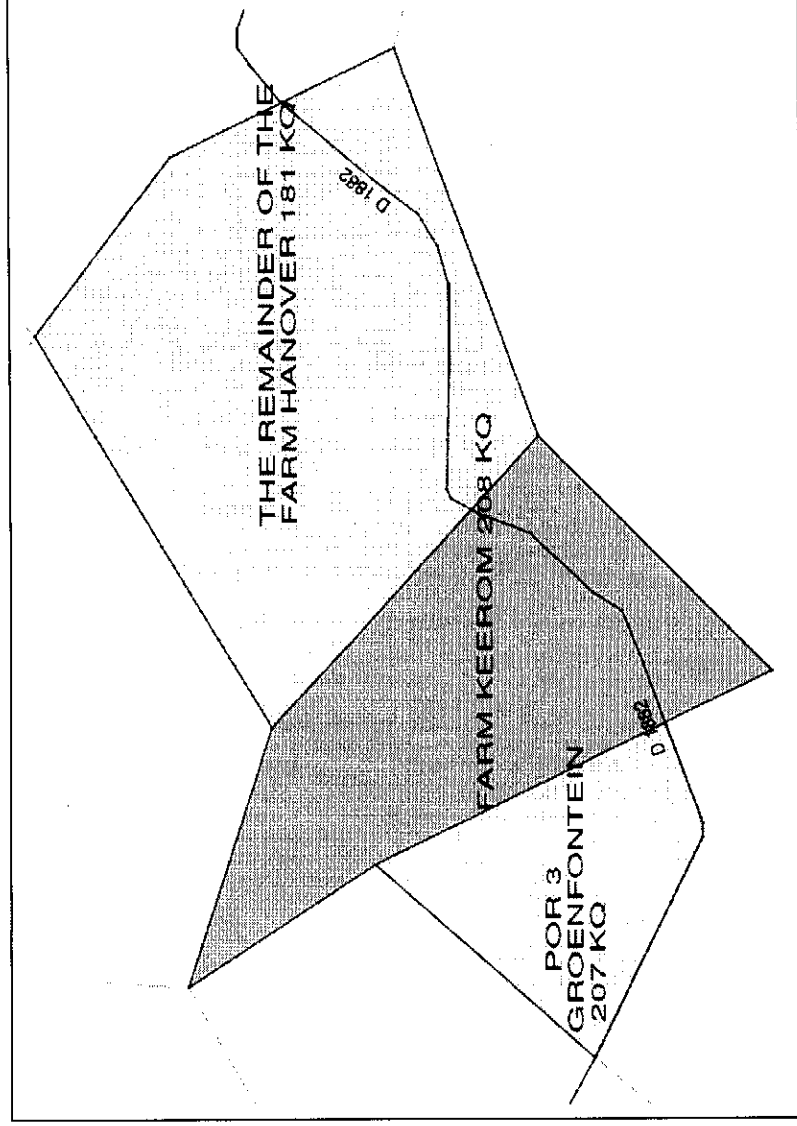
### 3. PROPERTY INFORMATION

#### 3.1 Property Description and Size

The proposed Settlement Areas are situated on three adjoining properties namely:

No	Property Description	Property Size
1	The Remainder of the farm Hanover 181 KQ	1422.8966 ha
2	The Remainder of Portion 3 of the farm Groenfontein 207 KQ	416.2902 ha
3	The Farm Keerom 208 KQ	914.7619 ha
<b>Total</b>		<b>2753.9487 ha</b>

The figure below illustrates the relative position of the properties:



The proposed Settlement Areas are thus situated within the total Matswani land parcel measuring 2753.9487 hectares in extent.

### 3.2 Locality

The application property is located approximately 35 km north west of Vaalwater on the R33 road to Ellisras and 11.5 km north of Hermanusdorings on District road No D1882 in a rural agricultural area within the Lephalale Local Municipality. The site is located at 24° 6' 39.12"S; 27°49' 33.33"E coordinates. **See locality plan Annexure B.**

### 3.3 Present Land-Use

Matswani currently operates as a fully catered lodge facility, comprising 11 chalets, a central restaurant, bar and pool deck, as well as a natural history museum situated and clustered on approximately 10 hectares or 0.4% of the total Matswani land parcel. The remainder of the Matswani land parcel is utilized for game farming and conservation purposes.

### 3.4 Salient Features of the Site

#### 3.4.1 Manmade Features

The site is mostly undeveloped and fenced as a game farm. Manmade features include lodge facility as mentioned under paragraph 3.3 above.

The district road No D1882 bisects the Remainder of the farm Hanover 181 KQ and the farm Keerom 208 KQ roughly on a southern third of the farms in a east west direction and continues to the west of the latter farms and forms the southern boundary of the third land parcel namely the Remainder of Portion 3 of the farm Groentfontein 207 KQ.

### 3.4.2 Physical Features

#### (a) Topography and Drainage

The site is characterized by a sloping topography and the largest percentage of the site comprises of a terraced north-facing slope forming a valley. The tributary of the Mokolo River traverses through the valley from north-east to south-west. The river bisects the property in close proximity of its northern boundary.

#### (b) Vegetation

Vegetation largely comprises grassland and thorn trees. A more detailed description of the site, including the climate, the fauna and flora is given in paragraph 5.1.9.1 of the Scoping Report undertaken by Earth INC Environment and Development Consultants and is not repeated here.

## 4. LAND AND LEGAL MATTERS

### 4.1 Property Owner

The Property is as indicated below with the relevant Title Deed:

No	Property Description	Owner	Title Deed
1	The Remainder of the farm Hanover 181 KQ	Matswani Game Farm (Pty) Ltd No.98/16697/07	T131863/98
2	The Remainder of Portion 3 of the farm Groentfontein 207 KQ	Matswani Game Farm (Pty) Ltd No.98/16697/07	T131864/98
3	The Farm Keerom 208 KQ	Matswani Game Farm (Pty) Ltd No.98/16697/07	T131864/98

**See attached the registered Title Deed in Annexure C**

### 4.2 Bonds

There is no bond registered over the properties as mentioned in the above.



### 4.3 Statutory Restriction

#### 4.3.1 Title Conditions and Servitudes

No	Property Description	Title Deed		Servitude/ Condition
1	The Remainder of the farm Hanover 181 KQ	T131863/98	<p><b>Par. A:</b> No. 939/1937 S 941/1937 S</p> <p><b>Par. B:</b> No. 938/1937 S 941/1937 S</p> <p><b>Par. C</b></p>	<p>Mineral Rights in favour of African Gold and Base Metal Holdings Limited</p> <p>Mineral Rights in favour of African Gold and Base Metal Holdings Limited</p> <p>Mineral Rights in favour of the State</p>
2	The Remainder of Portion 3 of the farm Groenfontein 207 KQ	T131864/98	Par. 1-8	Mineral Rights in favour of The Transvaal Consolidated Land and Exploration Company Limited
3	The Farm Keerom 208 KQ	T131864/98	Par. 1-8	Mineral Rights in favour of The Transvaal Consolidated Land and Exploration Company Limited

#### 4.3.2 Impact of Title Conditions and Servitudes

With respect to all restrictive conditions pertain to mineral rights, it can be stated that the Mineral and Petroleum Resources Development Act, Act 28 of 2002 that came into operation on 1 May 2004 appointed the State as custodian of mineral resources and the government became the grantor of prospecting, exploration, and mining and production rights. Even though no known rights were reserved, the necessary applications and consents have to be obtained from the regional office of the Department of Mineral and Energy in which jurisdiction the property is situated. In a letter dated 20 October 2009 the Department of Minerals and Energy, Directorate Mineral Regulation of the Limpopo Province confirmed that no right has been issued on the application properties (**see Annexure Q**).

There is no further restrictive condition in the relevant title deed that affects the application negatively.

#### 4.4 Current Zoning (Land Rights)

The property is regulated by the Lephalale Town Planning Scheme of 2005. There is no record of consent uses approved on the application property. It is the intention of the applicant to incorporate the proposed settlement plan into the Lephalale Town Planning Scheme.

#### 4.5 Land Claims

There is no record of land claims lodged on the application properties. Attached please find the written confirmation from the Office of the Regional Land Claims Commissioner of the Limpopo Province dated 19 June 2009 and 12 July 2011. **See confirmation from the Commission on Restitution of Land Rights Annexure E.**

### 5. DEVELOPMENT CONCEPT

#### 5.1 The Vision

The development concept is set out in the introductory paragraph in the attached Draft Scoping Report as compiled by Earth INC Environment and Development Consultants:

“Tourism is the fourth largest and fastest growing industry in South Africa. It attracted 6.6 million visitors in the calendar year of 2002. That same year, the industry contributed 8.2 percent, or \$ 10.3 billion, of South Africa’s GDP (Gross domestic product) and has a projected 12 percent yearly growth for the next few years. Africa’s complex HRI (hotel, restaurant and institutional) sector, and integral part of the tourism industry, is the country’s largest employer with 500,000 workers. In the HRI food service sector, worth roughly \$ 2 billion in sales in 2003, restaurant receipts accounted for about 70 percent of the market. Hotels claim 20 percent and institutional food catering companies make up the last 10 percent. South African tourism statistics for 2006 showed a 14.5% increase in tourism arrivals compared with 2005 figures.

The tourism sector in South Africa has experienced exceptional growth. The country report for South Africa produced by the World Travel and Tourism Council (WTTC) for 2010 predicted that the contribution of Travel & Tourism to Gross Domestic Product is expected to stay the same at 7.7% (ZAR203.3bn or US\$26.4mn) in 2010 to 7.7% (ZAR499.0bn or US\$54.9bn) by 2020. The contribution to employment is expected to remain level at 6.9% of total employment, 869,000 jobs, or one in every 14.6 jobs in 2010, to 6.9% of total employment, 1,097,000 jobs, or 1 in every 14.4 jobs by 2020. Real GDP growth for Travel & Tourism economy is expected to be 0.3% in 2010 and to average 4.6% per annum over the coming 10 years, while export earnings from international visitors and tourism goods are expected to generate 10.1% of total exports (ZAR72.8bn or US\$9.5bn) in 2010, growing (nominal terms) to ZAR170.5bn or US\$18.8bn (9.1% of total) in 2020. Current Travel & Tourism investment is estimated at ZAR74.3bn, US\$9.7bn or 13.0% of total investment in 2010. By 2020, this should reach

ZAR188.4bn, US\$20.7bn or 13.6% of total investment. With respect to South Africa's world ranking, the Travel and Tourism economy is ranked number:

- 34 in absolute size worldwide
- 101 in relative contribution to national economies
- 95 in long-term (10-year) growth

(181 countries are estimated by WTTC / OE)(World Travel and Tourism Council, 2010)

With a steady increase in tourism as eluded to above and an increase in demand and interest in Matswani, as well as an increase in the interest and availability of product options, has prompted Matswani to expand its offering in the current niche tourism market.

Matswani currently operates as a fully catered lodge facility, comprising 11 chalets, a central restaurant, bar and pool deck, as well as a natural history museum. Some guests are even transported from OR Tambo airport in Gauteng to the lodge where a full-set programme of activities is provided. There has been an expressed interest in alternative accommodation units offering guests the flexibility of self drive and catering, without the rigidity of a set programme.

The proposed development will comprise 68 self-catering lodges units, including associated support service infrastructure. The units will similarly be serviced by a central reception area, including convenience store, launderette, restaurant / bar, as well as maintenance services.

Environmental, economic and social sustainability is the core to the development philosophy of the project. Sustainability issues will be integrated into the project through a 'Cradle to Cradle' approach, from integrated environmental planning through to operational sustainability issues".

A Farming estate as leisure residential activity as described in this report and proposed will be an answer to the market demand of an already established lodge on the property. The basis for the anticipated success of farming estates is found in:

- The need for leisure and recreation in general and the strong preference for nature-orientated vacations;
- Many city dwellers with a longing to have an African Game farm experience;
- Game farming becoming more cost intensive and farmers finding it increasingly difficult to be profitable unless it can be approached as a business venture, requiring substantial capital inputs.

The creation of a game farming estate offers a solution for both dilemmas, since it creates the opportunity for leisure in a rural game farming atmosphere while the farming

component receives a substantial capital injection, which will ensure the sustainability of the farming operations.

Realizing this concept, the challenge is to ensure that the development proposal will be sustainable. The protection of the conservation area is the core principle, as it is the main asset of the development. The natural environment is further the asset that will attract the clients to the development in the first instance. The formulation of a development concept has to adhere to the following guiding principles:

- The total number of units must be limited to the extent that will not have a negative impact on the sustainability of the game farm;
- Sustainability by conserving energy and water during its operation;
- The incorporation of planning principles and guidelines are essential;
- The conduct of proper investigations to ensure that the impact of the proposed development will not be to the detriment of the natural environment;
- The delivery of essential services should be deliverable on a sustainable basis and not to the detriment of the environment.
- A Social responsibility will be incorporated in the project and the existing initiatives will be extended (see Annexure T).

## **5.2 Practical implementation**

The project team is confident that they have succeeded in attaining the overall vision and above principles in the proposed settlement plan. The analysis that follows below (Chapter 6) explains how the multi-disciplinary approach has guided the team to arrive at the final proposals as indicated and discussed in Chapter 7 of this Memorandum.

## **6. ANALYSIS**

### **6.1 Overview**

This section intends to, with the above development concept in mind, analyse the relevant aspects that will influence the formulation of the development concept as well as eventual implementation thereof. The aspects that will be analysed are the following:

- Town planning guidelines;
- Geo technical conditions;
- Geo-hydrological aspects;
- Environmental sensitivities;
- Culture- historic heritage; and

- Agricultural potential.

The analysis of each of the above aspects is further supplemented with **development guidelines** that are derived from the analysis. The development guidelines will inform the development proposal that will follow.

## **6.2 Town planning guidelines**

### **6.2.1 Purpose of the spatial development framework**

The adopted Lephalale Municipality Spatial Development Framework, 2008 (hereinafter “SDF”) was compiled in terms of Section 26(e) of the Municipal Systems Act, 2000 (Act 32 of 2000).

The purpose of the SDF is explained on page 4 of the said document: “In rural context it will be necessary also to deal specifically with natural resource management issues, land rights and tenure arrangements, land capability, subdivision and consolidation of farms and the protection of prime agricultural land”.

One of the main objectives of the SDF is given on page 2 of the document: “The compilation of a Spatial Development Framework is identified as an important Land Use Management project in the Lephalale Municipality. Such a framework has to inform the decisions of development tribunals and other decision-making bodies, as well as create a framework for investor confidence.”

### **6.2.2 Characteristics of the area of the proposed settlement**

In terms of paragraph 3.2 above, the locality of the proposed settlement area is characterized as a rural agricultural area within the municipality’s area of jurisdiction. The area of the application property is described in paragraph 2.1.3 on page 12 of the SDF as a rural area that is predominantly an extensive commercial farming area, where cattle farming and game farming are the two main agricultural practices established.

On page 16 of the SDF the potential of the agricultural land is described as follows: “most of the municipal area (99%) consists of grazing land and can be regarded as low potential agricultural land, while areas with sustainable water and irrigable soils, properties can be regarded as high potential agricultural land” (page 16).

On page 53 of the SDF it is stated that ecological diversity within the area has been significantly impacted on by intensive agricultural practices in some areas. The lack of adequate conservation areas and strategic ecological links is probably leading to loss of species and biodiversity. It is stated that in order to make this sector of the sustainability equation to work, it is critical that Lephalale adopts a policy to develop and exploit its economic assets to the full. These assets can include:

- Industrial & Business potential;
- Tourism potential; and
- Agricultural potential (page 54).

In broad terms, it is clear that the current use of natural resources within some areas in the Lephalale area is indeed not sustainable. The reason given is the density of people and the quality of the land, major soil erosion problems that have developed within certain areas in the Lephalale region (page 53 of the SDF).

In Paragraph, 2.4.4 on page 19 of the SDF unemployment is identified as an issue and this necessitates the establishment of sustainable employment projects. This implies that the high unemployment levels in the local economy need to be addressed. The probable causes of the high unemployment are amongst others identified as:

- The limited skills base of the labour force;
- The high levels of concentration of the local economy;
- Certain economic projects and activities, which are not being utilized to their full potential.

Assistance and development of local tourism is identified as a solution of the problem of unemployment in page 21 of the SDF. On page 24, it is stated that the agricultural sector and community sector together, provide approximately 18.02% of formal employment. The proximity of the Mokolo Dam and D'Nyala tourism area provides opportunities for the local tourism sector".

Page 33 of the SDF identifies nature-orientated areas with restricted properties for commercial farming such as mountains, steep slopes, riverines, rock formations, valleys etc. are extremely suitable for country estates (rural residential development). Such areas should also be exploited to use their unique characteristics as natural resource in a different concept. It is stated that about 20% of the Lephalale Municipal area has the characteristics and potential for development of country estates.

In terms of Morphology Planning Guidelines on page 58 of the SDF, the following developments can be allowed on mountain slopes including slopes and valleys:

- Biodiversity zone
- Biosphere
- National Parks
- Provincial Reserves
- Private Game reserves
- Ecotourism

On page 41 of the SDF the Waterberg Biosphere is identified as an impetus to the potential for tourism development as it is relatively undisturbed and can be developed as an eco-tourism destination, which is currently earmarked as one of the hot spots for tourism development within the municipal area. It is further recommended that game ranching could attract tourism to the area. The development of tourism "gateways" will be promoted in order to provide opportunities for expanding tourism investment towards Lephalale.

On page 42 of the SDF the importance of the tourism industry to the economy of the area is predicted to be likely to continue to grow into the future, as it is currently underutilised. This is likely to be related to the hunting and eco-tourism industries.

Paragraph 7.3.1.4.2 on page 101 of the SDF addresses issues as outlined in the Provincial Economic Strategy analysis. Tourism has been identified as a sector having competitive advantage. This sector reflects strengths, unique characteristics and a potential for growth and development. Lephalale's natural and cultural features have different potential for tourism. One of the municipality's main assets is its large areas, which are relatively well preserved, particularly the Waterberg mountain ranges. The magnificence and beauty of these mountains, together with their wilderness atmosphere and rich habitat diversity, provide unmatched opportunities for tourism development.

Par 7.2 on page 87 of the SDF made the following applicable proposals in translating vision into space:

- Promoting business development.
- Tourism and events centred development (page 87).

### **6.2.3 Specific Location of the Proposed Settlement Area**

In terms of the Lepalale SDF 2008 Map 2 Spatial Reality, the application property is situated between four nature reserves namely the Makolo Dam Nature Reserve to the west, the Welgevonden Nature Reserve to the south, Kwalata Nature Reserve to the east and the D' Nyala Nature Reserve to the north of the application property.

Matswani does not fall within the Waterberg biosphere reserve. It is in close proximity of the Waterberg Biosphere Submitted core to the west of the application site. The southern part of the application property, south of the secondary access road is situated within the Waterberg Submitted Transition Zone, which also extends to areas west of the application property. No development is envisaged on the part of the property within the Transitional Zone.

The application property is further in terms of the Lephalale SDF Proposal Map (Map 4), situated on a link road between a First Order Link and a Second Order Road. The first order road is further identified as a Tourism and Logistic corridor in terms of the SDF.

As mentioned above the proposed Settlement Area is in close proximity of these Nature reserves namely:

#### **(i) D'Nyala Nature Reserve**

The ± 8 281 ha Reserve is located in the northern Waterberg mountain range nearby the town of Lephalale (previously Ellistras). Government acquired the Reserve in 1986 to allow for the construction of the Vaalwater Lephalale road. Lephalale is an important rural service centre and is the last end route to Botswana from SA along the (shorter)

alternative R33 route leading to four border control posts. This route, the provincial road between Vaalwater and Lephalale, traverses the Reserve, dividing it into a western and eastern portion.

#### **(ii) Mokolo Nature Reserve**

The Mokolo Dam is situated 50 km from Lephalale on the Thabazimbi road (R510) and offers excellent boating and fishing opportunities. A picnic area is available for day visitors and overnight facilities for those who wish to stay over.

#### **(iii) The Waterberg Biosphere reserve**

This reserve is situated in the Waterberg district of the Limpopo Province. Waterberg's escarpment consists of massive sandstone buttresses, through which sundry passes allow access to the inner, or Palala Plateau (Page 50).

The Matswani reserve complements other initiatives and is complementary to current land uses of the surrounding area.

### **6.2.4 Conclusion**

An analysis of the Lephalale Municipality Spatial Development Framework, 2008 revealed that the development vision as envisaged in paragraph 5 is in line with policy documents for the area as required in Section 35(1) of the Municipal Systems Act (32 of 2000).

### **6.2.5 Development guidelines**

In terms of the Lephalale Municipality Spatial Development Framework, 2008 (Page 32-33 and page 79-80); clear guidelines are given for the assessment of applications situated on Agricultural land:

- All applications for subdivision or change of land use in agricultural districts should be considered on merit;
- All applications for subdivision should be in accordance with the Lephalale Municipality's policy document on the "Densification of Agricultural Land", as amended from time to time. The Lephalale Municipality do not have a separate policy in this regard and thus rely on the guidelines as laid down in the Lephalale Municipality Spatial Development Framework, 2008;
- The location of the proposed subdivision or change of land use in relation with existing and future urban areas should be considered;
- The effective utilization of townlands and erven within the urban nodes should first receive priority before additional agricultural land be released for neighbourhood development;
- The quality of the land and agricultural potential of the land under discussion should be investigated with every development proposal;



- Motivation for the change in land use or subdivisions should indicate the future agricultural potential of the land under discussion and its relationship with the surrounding area;
- The development proposals should take into consideration the current land uses of the surrounding area;
- The availability of engineering services, particularly potable water, sewerage disposal, appropriate access roads and storm water runoff should be addressed in all development proposals;
- The location of the proposed development in relation to road infrastructure should be considered;
- The development proposal should indicate the impact of new infrastructure provisioning on agricultural land. Service agreements with service providers, where the developer is not providing the service, should be attached with all development proposals;
- Prime agricultural land and irrigation schemes should be protected from a change in land use that is not supportive of the agricultural potential of the land and subdivisions that are not sustainable in the long run should not be considered;
- A change of land use or subdivision of land within a node should get preference above a similar application at a dispersed locality;
- The impact on the environment should be addressed and the protection of natural and heritage areas should be regarded as essential.
- The number of units created through subdivision or any other form of ownership (sectional title, share block scheme, etc.) for non-agricultural use should be limited to a maximum of 1 unit per 10 hectares, or otherwise township establishment procedures must be followed;
- All development is dependent on the availability of bulk infrastructure and the future spatial planning of the area. The major road network for future development should be considered and the proposed subdivisions need to accommodate these proposed future road alignments or any other bulk infrastructure alignment within the development proposed;
- A map indicating the 1:100 year flood line as determined by a professional engineer must accompany all applications adjacent to rivers and public dams;
- Residential development densities along rivers and dams may not exceed 1 residential unit per 15 metres waterfront;
- Residential development densities on agricultural land may not exceed 1 residential unit per 10 ha, except with the prior approval of the Lephalale Municipality and provided that the prescribed application procedures have been followed;
- Proposed developments should not sterilize strategic mineral deposits;
- Proposed developments should not occur in areas of unstable geological formations;
- Developers may be required to submit impact studies or any other study to support decision-making; and
- In certain circumstances (residential development, industrial development, etc) it is necessary to deviate from mentioned policy.

All the applicable guidelines have been utilized as a checklist in order to establish whether the professional team addressed all the relevant development issues in the formulation of the development proposal (refer to paragraph 8.1 of the memorandum).

### 6.3 Geotechnical Investigation

The Geotechnical Hub (Pty) Ltd was appointed to conduct a geotechnical investigation for the proposed Settlement Area. The detailed report which included in **Annexure F**, consists of a Phase 1 Engineering Geological and Geotechnical Investigation (desk study and visual inspection). The objectives of the study included the following:

- To provide an overview of the geology and typical soil profiles at the site;
- Identifying problematic geotechnical considerations, if any; and
- The evaluation of the site for the existing and proposed developments.

The entire reserve is underlain by sandstone of the Kransberg Formation of the Waterberg Supergroup. The soils present are a reflection of the underlying geology and are discussed according to this geology:

**Hillwash:** The visual inspection of the site revealed that the area is covered by a thin layer of sandy hillwash material, which may be compressible or collapsible.

**Alluvium:** Sandy alluvial deposits were noted along the flanks of the river traversing the reserve.

**Sandstone bedrock:** Abundant sandstone outcrops were noted in the proposed settlement area.

The purpose of the investigation was to provide a broad overview and classification of the suitability of the land for the proposed development and outline obvious constraints. Partridge, Wood and Brink, indicates that the following issues have to be considered in the classification of the sites for urban development. The following categories are discussed in the report:

- Collapsible / compressible soil profile;
- Expansive soil profile;
- Shallow seepage or groundwater level;
- Erodibility of the soil profile;
- Excavatability;
- Undermined ground;
- Instability of areas of soluble rock;
- Steep slopes;
- Unstable natural slopes;
- Seismic activity;
- Areas subject to flooding; and

- Other considerations

No indication of the presence of soluble rock formations (dolomite) was found during the Visual inspection or desk study investigation.

Due to the presence of potentially compressible/collapsible Hillwash and Alluvium as well as shallow sandstone bedrock or outcrops the site is delineated into one geotechnical zone, which is defined as Zone C/R. The site is generally characterized by compressible/collapsible (C) soil profile estimated total settlements of less than 5 mm expected. Machine excavatability for the installation of services (with a backhoe or excavator) may be problematic in areas (R) where shallow bedrock or outcrops are present.

It was recommended that the formalization of the development can proceed, subject to the following conditions:

- Detailed geotechnical investigations must be conducted for the proposed lodges to confirm the zoning of the site and to ensure that appropriate precautions against total and differential movement are implemented.
- In-situ permeability test must be conducted for the design suitable sanitation systems.

#### 6.4 Geo-Hydrological investigation

Aurecon was appointed to conduct a Ground Water Feasibility Study of the private game farming estate development. The aim was to establish the sustainability of the water sources mainly for domestic use. The scope of work included the following:

- Hydro census to identify legitimate groundwater users on neighbouring properties;
- Pump testing of existing boreholes on-site to determine the sustainable yield of each borehole;
- Evaluate the quality of the groundwater;
- Determine the groundwater reserve and water available for abstraction through a “Rapid Reserve Determination” which will accompany the Water Use Licence application;
- Perform a risk assessment to investigate the potential impact of a septic sanitation facility on the geo-hydrological environment;
- Prepare a report summarising the findings of the investigation.

The full report is included as **Annexure G**. In summary, based on the desk study, hydro census, test pumping data, analytical results, reserve determination and sanitation assessment, the following can be concluded:

- The groundwater is of excellent quality with all chemical parameters falling within Class 1;
- The sustainable yield calculated from the pump tests conducted on the three production boreholes is 6.5 l/s;

- The annual recharge on the property is 594 210 m<sup>3</sup>/a or 18.8 l/s;
- A Water Use License for abstraction of 180 000 m<sup>3</sup>/a or 5.7 l/s will be applied for. This is <30% of the annual recharge on the property which places the water use license in Category A;
- In the occurring lithology at Matswani the sand and weathered sandstone act as a fair to good barrier for the movement of biological contaminants with little reduction in chemical contaminants;
- A high risk exists for groundwater to be contaminated by uncontrolled and irresponsible sewage management and precautionary measures should be implemented to contain sewage flow.

Based on the above conclusions, the following recommendations were made:

- Individual boreholes should be registered with DWA;
- Adherence to the sustainable yields of the boreholes is crucial to ensure long-term utilisation of the groundwater resource;
- Accurate monthly monitoring of the groundwater levels in the boreholes is recommended. If any significant fluctuation in water level occurs, immediate action needs to be taken;
- Water borne sewage treatment facilities are proposed to treat the raw sewage water;
- The treated effluent can be discharge into a properly designed and constructed lined evaporation pond. A wetland as a mean of treating treated sewage water can also be considered after proper investigation.
- Water use licences will be applied for and procured from the Department of Water affairs for the abstraction of water, the release of treated effluent and the structures below the 1:100 year flood line.

## **6.5 Environmental sensitivities**

### **6.5.1 Environmental Authorization**

Paragraph 4.1 on page 41 of the Lephalale SDF acknowledged the following in terms of Strategic Environmental Assessment: "Areas earmarked for eco-tourism development, is closely related to areas that have been identified as conservation areas and/or environmentally sensitive areas. It will thus be prudent to allow only such development that will be sympathetic to the natural environment and after Environmental Impact Assessments have been done to establish the influence of the proposed development on the environment, or such other legal procedures as discussed in full in the Lephalale Integrated Environmental Programme, 2005".

The approach that is recommended includes the following environmental principles:

- Sustainability
- Optimal utilisation of resources
- Integrative approach

- Participatory approach (Page 42-43).

The localised environmental strategies of the Lephalale Municipality should (based on the NEMA principles), direct future decision-making within the Lephalale Municipality – these guidelines include amongst others:

- Minimising negative impacts on the environment as a whole;
- Minimising negative impacts on people's environmental rights;
- Avoiding pollution and degradation of the environment;
- Avoiding waste through recycling and safe disposal;
- Managing the exploitation of non-renewable natural resources;
- Avoiding the jeopardising of renewable resources and ecosystems;
- Paying specific attention to sensitive, vulnerable, highly dynamic or stressed ecosystems (Page 43).

Matswani Private Farm approached Earth INC Environmental Consultants to conduct an Environmental Impact Assessment for the proposed development activity including associated structures and infrastructure (the total area of developed area is, or is intended to be 20 hectares or more). The Limpopo Department of Economic Development, Environment & Tourism's (LEDET) project requirements in terms of section 24 (2)(a) and (c) read with section 44 of the National Environmental Management Act (NEMA) of 1998 (Act 107 of 1998) are adhered to. An application is currently registered as 12/19-7/2 – W68 for the proposed development. A separate application is also pending in order to address the existing development in terms of Section 24G for the Matswani Private Reserve.

This scoping report is to be considered as the environmental base upon which the development activity is to be developed. An environmental planning approach has been adopted as the development platform for the scoping assessment as the environment should inform planning, not justify it. The objectives of this scoping report will also include:

- Identification of environmental parameters which will be impacted upon by the development activity;
- Consideration of alternatives;
- Identification of aspects which require further assessment in the EIA phase of the project; and
- Integration of sensitive and general environmental features into the proposed activity.

This report recommends that the development take place due to the long term economic benefit it will provide to workers and the region as a whole. Since the development primarily targets a selected market of foreign visitors, the potential tourism spin-offs will provide benefits to other game farms, regional centers, etc. It must be noted that the development is only considered viable if its impact on the environment is mitigated to a sufficient degree. The maintenance of the development service infrastructure is directly

related to the income generated from visitors, therefore Matswani must ensure that it can obtain enough funds to continue to maintain and operate the required infrastructure. It must be noted, however, that the owners of Matswani have more than one business venture and thus could use income from other areas to supplement that needed for daily operation.

The following factors must be taken into account when selecting the preferred alternative and approving the development:

- Successful treatment of effluent and a system that can operate with the varying number of visitors throughout the year and thus still stay operational, since most systems require a minimum level of bacteria to remain operational;
- The effective placement of effluent treatment systems that will not impact on the groundwater quality of the area;
- A layout and design that compliments the natural area, through different layouts and external treatment of the lodges to blend into the environment;
- The re-use and conservation of water, by re-using treated effluent water that complies with DWAF standards, for irrigation or other purposes, to reduce the amount of potable water used;
- Conservation of energy within the development during operation;
- Minimize the damage of construction to the site indigenous flora and fauna, by using alternative “greener” construction methods and materials;
- Minimizing the physical footprint of transport and service infrastructure by using alternative means, such as alternative transport options etc.;
- All development principles set out in Section 4.12: Environmentally sensitive area and proposed ecotourism settlement areas should be adhered to (page 89).

**See attached Final Scoping report Annexure J**

### **6.5.2 Vegetation and Fauna Assessment**

Earth INC Environmental Consultants required the following information in order to inform the Environmental Impact Assessment Process:

- The vegetation and plant species composition of the area;
- The presence of red data plant species;
- The fauna of the site, with emphasis on possibly occurring red data fauna species;
- Ecological sensitive areas.

EcoAgent was commissioned to conduct an investigation of the vegetation and fauna at the site under investigation **The Vegetation and Fauna Report is attached as Annexure K**

### **(a) Vegetation and Flora**

EcoAgent’s investigation identified three different plant communities / ecosystems on the application property:

**Open to dense Bushveld on the Terrace:** Although this bushveld has a Medium Conservation Value and Sensitivity, it is widespread over the area of the Waterberg and is not endangered. No protected species or red data plant species occur on the site. It is suggested that the development can be supported here (page 13 of the Vegetation and Fauna Report).

**Dense Bushveld of the Ridge:** The vegetation on the rocky hills is considered to be of High Conservation Value and therefore has a High Sensitivity. Although not rare within the Waterberg area, the species composition is unique to this ecosystem. Especially *Albizia tanganyicensis* is unique to this plant community. It is suggested that the planning of this development consider the uniqueness of the rocky hills and use a layout that will avoid damage to the hill. Alien species for gardening should be discouraged (page 17 of the Vegetation and Fauna Report).

**Open Bushveld on Rocky area:** Although this bushveld has a Medium Conservation Value and Sensitivity, it is widespread over the area of the Waterberg and is not endangered. No protected species or red data species occur on the site. It is suggested that the development can be supported here (page 20 of the Vegetation and Fauna Report).

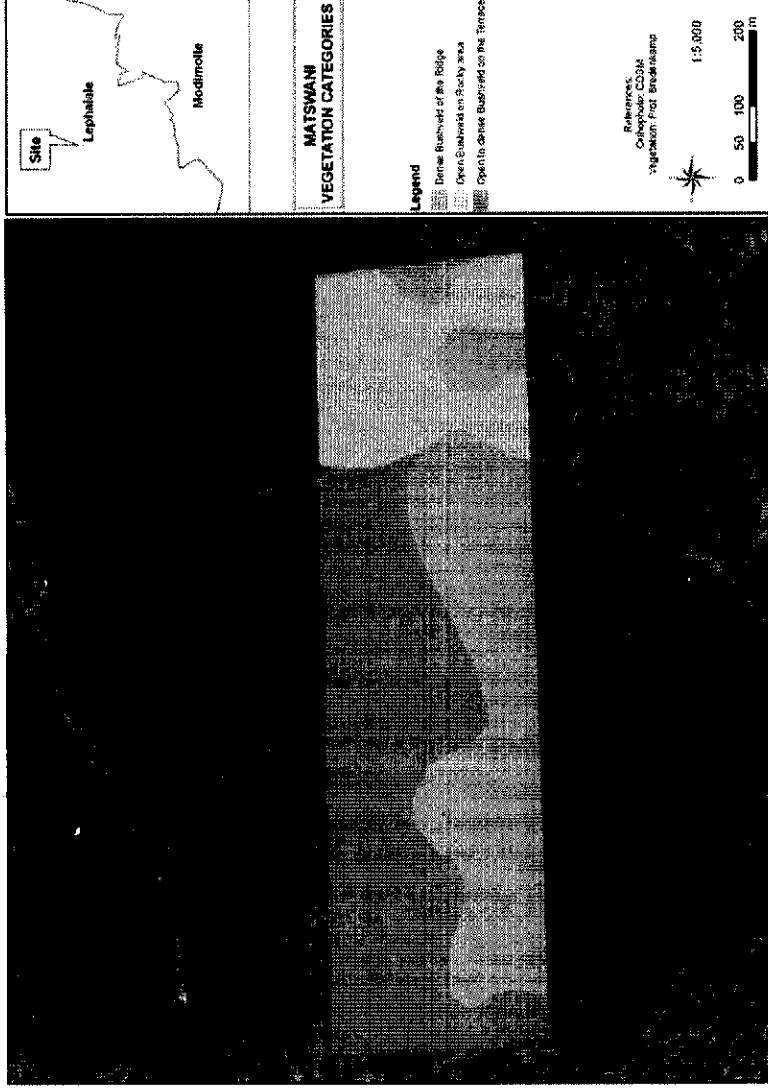
The sensitivities of the three different plant communities / ecosystems on the application property are summarized in the following table (page 12 of the Vegetation and Fauna Report):

Plant Community	Sensitivity
1. Open to dense Bushveld on the Terrace	Medium
2. Dense Bushveld of the Ridge	High
3. Open Bushveld on Rocky area	Medium

The conclusion reached by EcoAgent regarding vegetation and plant species includes the following:

- Most of the area is suitable for development;
- The rocky ridge in the southern part of the site is more sensitive and development should avoid damaging the ridge;
- Only indigenous plant species should be used in the gardening of the area;
- The development should be planned using a landscape architect to ensure that many large trees be saved and incorporated in the development plan, to maintain the bushveld atmosphere;
- Should protected trees be found (*Sclerocarya birrea*, *Combretum imberbe*), these may not be removed or damaged without a permit from the provincial forestry department (previously DWAF) (The Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)).

The vegetation types were further mapped in order to inform the proposed settlement plan (refer to page 12 of EcoAgent 's report):



## (b) Fauna

**Red data mammal species:** Although development may lead to destruction of a small patch of habitat for any occurring red data species, this low density development will utilise a very small portion of the property and a large portion will remain natural veld. It is therefore suggested that there is adequate habitat left on the property, and in the general region, for all mammal species present to survive and complete their live cycles. The nature of such a low intensity disturbance will not lead to the permanent displacement of the local mammal species. It is expected that the proposed development will not affect the mammal species greatly (page 32 of the Vegetation and Fauna Report).

**Red data Reptiles:** *Python natalensis*, Southern African Python, is listed to occur in the Central Bushveld. There is definite suitable habitat for Python on the site, though the low density development will not reduce the available habitat to such an extent that Pythons are threatened. Efforts should however be made to protect this species, should they be found on the property (page 34 of the Vegetation and Fauna Report).

**Red Data Amphibians:** Giant Bullfrog is listed as a red data species that might occur in the area. There is not suitable habitat on the site. No wetland areas or suitable breeding pools exist close to the site. None of the other species is considered threatened (page 35 of the Vegetation and Fauna Report).



**Red Data Birds:** All species but the Blue Crane is raptor species that may fly over the site, and use the site as hunting/feeding ground. Blue Crane may use the adjacent old fields as feeding ground. No breeding sites occur on the site proposed for the development.

As birds are very mobile it is expected that this small scale development activities will not destroy or affect bird individuals or populations on the site, as these birds will, if necessary, simply migrate away to suitable neighbouring sites, and may return after the construction phase (page 43 of the Vegetation and Fauna Report).

**Red Data Butterflies:** None of these butterfly species is considered a red data species (page 46 of the Vegetation and Fauna Report).

### (c) Conclusion

The conclusion reached by EcoAgent following the investigation and ecological interpretation of the available red data animal habitats include the following:

- The proposed development, as with any kind of development will have an impact on the environment and the animal habitats it supports. However, it is the severity of the impact, as well as the sensitivity of these habitats to the imposed disturbances that should be the focus of concern.
- The Plant communities have a widespread occurrence. The surrounding bushveld areas still have suitable habitat to where fauna species can migrate to continue their life cycles. The protection of the plant communities on the site does not appear to be critical for the survival of any of the above mentioned red data fauna species.

**Development can be supported in these areas** (page 47 of the Vegetation and Fauna Report).

### ( 6.5.3 Heritage Specialist

All archaeological and palaeontological sites, and meteorites are protected by the National Heritage Resources Act (Act no 25 of 1999) hereinafter NHRA. An independent heritage consultant **Dr. J van Schalkwyk** was therefore appointed by **Earth Inc Environmental Consultants** to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area in which the above development is planned, to assess the significance thereof and to consider alternatives and plans for the mitigation of any adverse impacts in accordance with Section 38 of the NHRA.

The cultural landscape qualities of the region essentially consists of a single component, i.e. a rural area in which the human occupation is made up of a pre-colonial element (Stone Age and Iron Age) as well as a much later colonial (farmer) component.

**No sites, features or objects of cultural heritage significance were identified** in the study area, there would be no impact as a result of the proposed development. Therefore, from a heritage point of view it is recommended that the proposed development be allowed to continue. However, it was requested that should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made (**see attached Heritage Report Annexure I**).

#### 6.6 Agricultural potential

Rehab Green Monitoring Consultants cc was approached to conduct an agricultural economic assessment of the production potential achievable on the farm (**see attached Agricultural Potential Investigation Annexure H**).

The purpose of the study was to quality of the potential of the land that will be impacted upon if the development takes place. The study indicated the soil potential, land capability, land use and agricultural potential of the proposed settlement area.

However, no arable potential, grazing potential or wetland soils occurred in the surveyed area. Three main soil types were identified namely **Ms1**, **Ms2** and **R/Ms**, they are classified as wilderness land and their properties are described below. The soil types were further mapped in order to inform the proposed settlement plan (refer to page 12 of Rehab Green Monitoring's report).

Soil type **Ms1**, dominated by the Mispah soil Form, covering 9.25 ha (18.91%), occurs on gentle midslopes (2-3% slopes) and consists of shallow, well-drained, yellowish brown, loamy sand soils overlying hard rock with 5-40% exposed surface rock. The land capability was classified as wilderness land with very low agricultural potential due to limited effective soil depth (<300 mm) and frequent exposed surface rock. The erodibility was rated moderate due to the low water holding capacity of shallow soils, which together with exposed surface rock increases runoff, which result in a higher erosion susceptibility.

Soil type **Ms2**, dominated by the Mispah soil Form, covering 25.18 ha (51.46%), occurs on moderately steep midslopes (6-9% slopes) and consists of shallow, well-drained, yellowish brown, loamy sand soils overlying hard rock in complex association with rock outcrops covering 40-80% of the surface. The land capability was classified as wilderness land with very low to no agricultural potential due to limited effective soil depth and steep rocky slopes. The erodibility was rated moderate to high due to large percentage of exposed surface rock and moderately steep slopes, which increases runoff which result in a high erosion susceptibility.

Soil type **R/Ms**, dominated by the Mispah soil Form, covering 14.50 ha (29.63%), occurs on steep midslopes (12-30% slopes) and consists of very shallow, well-drained, yellowish brown, loamy sand soils overlying hard rock in complex association with rock outcrops covering more than 80% of the surface. The land capability was classified as wilderness

land with very low to no agricultural potential due to limited effective soil depth and steep rocky slopes. The erodibility was rated moderate to high due to large percentage of exposed surface rock and moderately steep slopes, which increases runoff which result in a high erosion susceptibility.

The total surveyed area consists of very shallow soils dominated by the Mispah soil form in a complex association with rock outcrops covering 40 to more than 80% of the surface.

It was concluded that the **agricultural potential was classified as very low to none** and the soils are not suitable for crop production or pastures. The land uses recommended for the area were therefore restricted to wildlife conservation and ecotourism.

Rehab Green Monitoring Consultants CC concluded their report by suggesting that a properly planned and well-managed development will have very little to no impact on soils or agricultural potential. A development contributing to wildlife conservation or ecotourism was supported fully.

## **7. DEVELOPMENT PROPOSAL AND MOTIVATION**

### **7.1 Methodology**

The analysis in the previous section as well as the guidelines derived from that exercise will in this section guide the formulation of the land use proposal as well as the proposed layout that is discussed hereunder.

### **7.2 Development Proposal**

The based on the analysis (especially in terms of the Lephalale SDF as discussed in paragraph 6.2 above), the following land use proposals was derived for consideration:

**The area should be developed as an eco-tourism attraction. In terms of the SDF and other policy documents for the area, this was given as the only viable land use option.**

The implementation was considered but the economical sustainability came into question. The agricultural study clearly indicated that agricultural potential was classified as very low to none (refer to paragraph 6.6 above). The proposed eco-tourism development can only be viable subject to extensive capital investment from private sources; it is very capital intensive to create such an attraction.

### **7.3 Advantages and Disadvantages**

#### **Advantages:**

- As indicated in paragraph 5.1 above, tourism is the fourth largest and fastest growing industry in South Africa. An eco-tourism attraction will develop this

opportunity. On page 42 of the SDF, the importance of the tourism industry to the economy of the area is predicted to be likely to continue to grow into the future, as it is currently underutilised;

- On Page 101 of the SDF, tourism has been identified as a sector having competitive advantage. One of the municipality's main assets is its large areas, which are relatively well preserved, particularly the Waterberg mountain ranges. The magnificence and beauty of these mountains, together with their wilderness atmosphere and rich habitat diversity, provide unmatched opportunities for tourism development;
- Matswani currently operates as a fully catered lodge facility, comprising 11 chalets, a lodge, central restaurant and recreational facilities. The sustainability of the tourist facility has already been established and because of the success of the existing operation and the established market, there is a need for expansion;
- Paragraph 2.4.4 on page 19 of the SDF, identified unemployment as an issue. This implies that the high unemployment levels in the local economy need to be addressed. Assistance and development of local tourism is identified as a solution of the problem of unemployment in page 21 of the SDF;
- Matswani is in close proximity of the Waterberg Biosphere Submitted core. On page 41 of the SDF, the Waterberg Biosphere is identified as an impetus to the potential for tourism development. As it is relatively undisturbed it can be developed as an eco-tourism destination, and the area is therefore earmarked as one of the hot spots for tourism development within the municipal area. The proximity of the Waterberg Biosphere will also address the lack of adequate conservation areas and strategic ecological links that will combat the loss of species.

**Disadvantages:**

- Paragraph 4.1 on page 41 of the SDF, stated that areas earmarked for eco-tourism development, and is closely related to areas that have been identified as conservation areas and/or environmentally sensitive areas. Uncontrolled development can lead to degradation of sensitive environmental areas.

**7.3.1 Deliberation**

The evaluation of the above shows the merit of an eco-tourism attraction and the advantages/disadvantages analysis clearly indicates the viability of this option.

Proper planning can mitigate the impact on the natural ecosystems in order to address the possible disadvantage of this option. The sustainable provision of services should further be prioritized with the planning of an eco-tourism attraction.

## 7.4 Layout Plan

### 7.4.1 Design Principles

The layout design was derived through a multi-disciplinary approach. The guidelines as derived from the Analysis as discussed in Paragraph 6 in the previous section were considered during the design process. The following disciplines were involved in the layout design:

- Town Planning;
- Geo Technical;
- Geo-hydrological;
- Environmental;
- Agricultural; and
- Civil and Electrical Engineering.

The challenge for the design is to incorporate an eco-tourism component into the game farm in such a way that the natural qualities will not be disturbed and to create a balance between the natural and build environment.

The layout plan also intends to aesthetically take advantage the site characteristics namely the valley, the northern slope, the stream which traverses through the site and the bushveld type vegetation. The veld with its bushveld characteristics creates an opportunity to hide and blend the building environment with the natural vegetation.

Aspects that will ensure a workable balance and as discussed below are the following:

- Sensitivity overlay
- Footprint
- Visual impact
- Road planning
- Drainage and flood lines

**See the proposed Settlement Plan attached as Annexure L**

### 7.4.2 Sensitive areas overlay

As an outcome of the analysis for the area, overlay maps were compiled to guide the design of the proposed layout. The purpose of the overlay map was to identify and classify various types of impacts in terms of bio-diversity, sensitivity and agricultural potential. The sensitivity overlay was compiled on two levels namely in terms of:

- Environmental Sensitivity as determined by vegetation types; and
- Agricultural potential as determined by soil types.

### (a) Environmental Sensitivity

The sensitivity classification and the design principles are summarized in the following table:

Sensitivity Classification	Design Principle
Area of High Sensitivity	Area should not be developed
Area of Medium Sensitivity	Area can be developed with special precautions
Area of Low Sensitivity	Area can be developed with precaution
Area of Very Low Sensitivity	Area can be developed without precaution

The areas of high sensitivity that are in essence of high biodiversity value are amongst the following classification:

- Riparian vegetation areas along the river beds;
- Certain prominent ridges;
- Areas with sensitive vegetation types; and
- Areas, which are typified by high biodiversity.

These areas of high sensitivity should preferably be protected and not disturbed. Areas of medium to low sensitivity can be developed but the precautions and mitigation measures prescribed in the Environmental Management Plan should be acknowledged. The mitigation measures will ensure the management of the impact in order to minimize the negative effect on the environment.

The overly below is also presented on page 12 of refer to page 12 of EcoAgent's vegetation and fauna report:



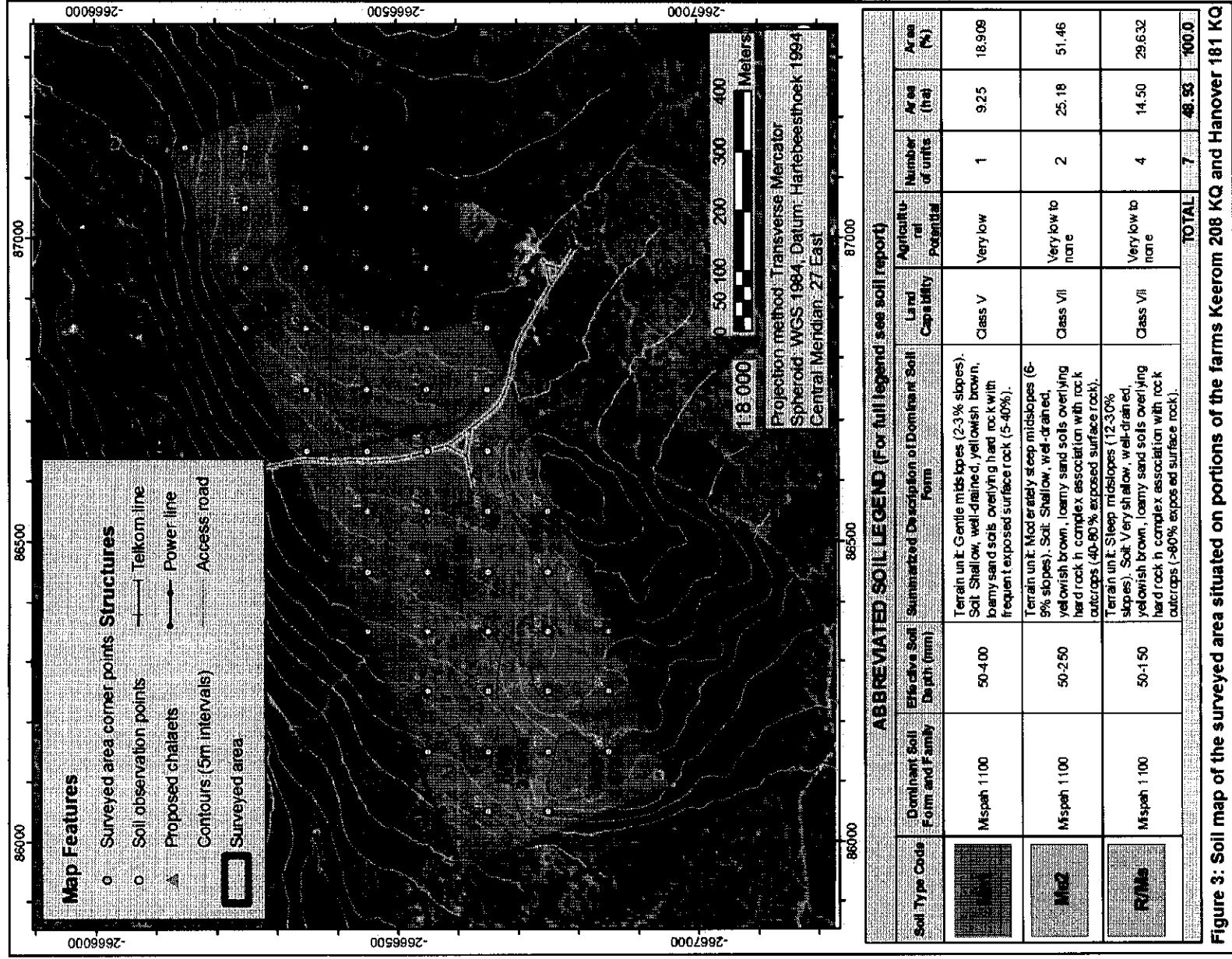
Plant Community	Sensitivity	Code
1. Open to dense Bushveld on the Terrace	Medium	Green
2. Dense Bushveld of the Ridge	High	Yellow
3. Open Bushveld on Rocky area	Medium	Blue-Green

As indicated, in the overlay above, the proposed layout is concentrated on the medium sensitivity areas in terms of vegetation.

**(b) Agricultural potential**

In terms of agricultural potential, the ideal is to preserve as much as possible of the agricultural potential of the farm for game farming purposes. The potential good state of the game farming is the asset that will attract the visitors in the first instance to the development. As indicated below, the agricultural potential for the area ranges between “very low” – “very low to none”. The layout was however planned in order to position the majority of the units in the “very low to none” agricultural potential areas.

The overlay below is also presented on page 12 of Rehab Green Monitoring Consultants CC’s Soil, Land Capability, Land Use and Agricultural Potential Assessment:



ABBREVIATED SOIL LEGEND (For full legend see soil report)						
Soil Type Code	Dominant Soil Form and Family	Erosive Soil Depth (mm)	Summarized Description of Dominant Soil Form	Land Capability	Agricultural Potential	Number of units
Mspah 1100	Mspah 1100	50-400	Terrain unit: Gentle mid-slopes (2-3% slopes). Soil: Shallow, well-drained, yellowish brown, loamy sand soils overlying hard rock with frequent exposed surface rock (5-40%).	Class V	Very low	1
Mra2	Mspah 1100	50-250	Terrain unit: Moderately steep mid-slopes (6-9% slopes). Soil: Shallow, wet-drained, yellowish brown, loamy sand soils overlying hard rock in complex association with rock outcrops (40-80% exposed surface rock).	Class VII	Very low to none	2
RMs	Mspah 1100	50-150	Terrain unit: Steep mid-slopes (12-30% slopes). Soil: Very shallow, well-drained, yellowish brown, loamy sand soils overlying hard rock in complex association with rock outcrops (>80% exposed surface rock).	Class VII	Very low to none	4
<b>TOTAL</b>						<b>7</b>
						<b>48.93</b>
						<b>100.0</b>

Figure 3: Soil map of the surveyed area situated on portions of the farms Keerom 288 KQ and Hanover 181 KQ

### 7.4.3 Footprint (Coverage)

The private reserve's endeavour to expand its existing facilities was guided by the following criteria:

- The balance between sense of place and natural environment and development;
- Limiting the size of individual footprints to retain a viable natural environment by the spacing of the lodges;



- The placing of the lodges on the least sensitive site on the farm where ever possible,
- Eco-tourist market layout preferences (page 15 of the Draft Scoping Report).

The placement of the unit's area was thus carefully planned in order to ensure that the disturbance of the environment would be minimized. The units together with the ecological footprint were placed in such a way that the natural thorn trees will break the visual contact between the various units. The footprints of the proposed development as well as the relative size in comparison total property are indicated in the table below:

Proposed Land Use	Footprint (Hectares)	Footprint(ha)/%
Eco Tourism	3.6	0.13%
Conservation	2750.5	99.87%
Total	2754	100.00%

Considering the extent of the Land Settlement area, the impact of the total planned development and thus disturbance will be less than 0.2%. The remainder of the land will be utilised for game farming and conservation purposes.

#### 7.4.4 Cluster and space

The principle behind a cluster and space design is that in addition to the minimizing of the footprint as discussed above, the proposed ecological footprints areas will be clustered in relative close proximity to each other. There are certain advantages in clustering the settlement including:

- The optimal utilization of the services infrastructure. The services are more cost effective as the proposed units are not scattered over an extensive area;
- An ecological advantage as clusters will ensure that a larger area of land will be reserved for conservation purposes;
- Foreign investors (for which the development caters for), prefer closely placed developments, for perceived safety concerns; and
- The management of the reserve will be more effective when units are situated in closer proximity to each other as opposed to be scattered over a large area.

The table below illustrates the areas allocated for the two proposed clusters and the relation to the area that will be reserved for conservation purposes:

Proposed Land Use	Footprint (Hectares)	Footprint(ha)%
Existing Lodge	10	0.36%
Addition to Existing Lodge	40	1.45%
Conservation	2704	98.19%
<b>Total</b>	<b>2754</b>	<b>100.00%</b>

Considering the extent of the clusters containing the Land Settlement areas, the impact of the total planned development and thus disturbance will also be less than 2%. The remainder of the land will be utilised for conservation purposes.

#### 7.4.5 Development Density

The total number of units applied for comprise of the existing development as well as the proposed new addition to the lodge. The existing development consists of chalets, staff housing and a lodge that was built as a prototype for the future development proposal. The proposed new development consists of lodges as well as staff housing. The total number of units envisaged can be summarized as follows:

Matswani Proposed Unit Types	Number of Units
Existing	
Chalets	11
Staff Housing	5
Lodge	1
<b>Addition to Existing Lodge</b>	
Lodge	68
Staff Housing	8
<b>Total:</b>	<b>93</b>

The proposed development density is calculated as the total number of units per hectare. The proposed density for Matswani is less than 0,035 units per hectare. The density can also be reflected 1 unit per 31 hectare of undeveloped land is available per unit, as opposed to the criteria in the SDF of 1 unit per 10ha.

#### **7.4.6 Full Title development**

The developer will construct units and effect the transfers as full title portions. Many similar full title developments have already been approved in the Waterberg area.

The intension is that the scale of the development be limited to a level that will be compatible to the game farm theme. Small individual portions will ensure that the ecological footprint will only consist of the lodges, limited portion surrounding the lodge, recreational areas and infrastructure. The remainder will be reserved for natural vegetation. The portion surrounding the lodges will not be developed and fenced; no individual outside entertainment areas and gardens will be developed, as normally in the case for full title stands. It thus means that the effective footprint of the development will be limited to be a maximum of 360 m<sup>2</sup> as well as a small perimeter of 5m that will be tamed for purposes of fire prevention etc. The game will be able to move freely between the units. The creation of full title stands is an academic exercise as erven are also not developed and fenced.

#### **7.4.7 Visual Treatment**

The topography is an important factor affecting sense of place of the area. Exposed units on ridges will impact negatively on the sense of place of surrounding properties. A digital elevation model was used to determine locations that gain maximum benefit from the view, without being over exposed. The topography of the site is very jagged, thus affecting possible development layout options (page 27 of the Draft Scoping report).

The visual impact of the proposed layout was minimised by applying the following guidelines:

- The proposed footprints are placed in such a way that the natural vegetation will hide the respective lodges as much as possible on order that the visual impact of the units be minimized;
- By applying the “footprint” principle, the ecological footprint will be minimized and this will limited the visual impact of the proposed development;
- On the higher-lying areas, the horizon line will not be disrupted by placing the “footprint” away from the steep slopes;
- The architectural treatment of the proposed structures will be sympathetic to the natural environment. The use of thatched roofs, non reflective surfaces and natural colours will minimize the visual impact of the build environment; and
- The topography of the site will ensure that the development will not be visible for surrounding properties.

#### **7.4.8 Access routes (point of access)**

The two existing controlled access points along road D1882 are proposed to provide access to the existing and planned areas. Good visibility, safety and other standards as

agreed with the Provincial and/or Local authority will be applied. The access is located along a straight section of road, which favours sight distances.

#### **7.4.9 Internal roads**

The design principles for the proposed internal road layout were based on the following objectives:

- The utilization of the existing local road infrastructure;
- The limitation of vehicle use by tourists;
- The promote park-and-ride/park-and-walk type transport solutions; and
- The road alignment should take cognizance of the topography of the area.

The width of the entrance road will be 10m and is planned on the exact alignment of the existing access road. No additional ecological footprint will be created in this regard. The access road will lead to a central park-and-ride facility and all private vehicles will have limited access only to this section of road. The remainder of the access will be internal roads of 3m width. Circulation on these internal roads will be via golf carts and pedestrian movement and will be controlled by the management of the game farm. This road reserve will however be wide enough to accommodate emergency and construction vehicles.

The road network will be minimum in order to provide access to all the units, recreational and management areas. The control of private vehicle access will limit the impact on the natural environment and on the visual component of the environment. This arrangement will further have a reduced impact on traffic, footprint and storm water runoff. The access roads will be registered in terms of a general right of way servitude over the property.

#### **7.4.10 Surrounding Land Uses**

Matswani does not fall within the Waterberg Biosphere Reserve, but since it is in close proximity to the buffer zone of the Biosphere, sound planning principals will be included in the proposed development in order to promote conservation and sustainability. As mentioned above, Matswani wishes to promote biodiversity and resource conservation by the unit placement, minimizing the footprint and limiting the amount of road infrastructure in the proposed development. The Biosphere initiative was started to restore the wilderness to its pristine conditions over a period of many years (page 35 of the Draft Scoping Report). The aim of the design was to blend the proposed development into the natural environment, minimizing the impact and therefore complement and support initiatives and their conservation objectives for the area.

#### **7.4.11 Drainage channels and flood-lines**

An engineer was appointed to calculate the 1:50 and 1:100 year flood-line. The distance between the two-flood lines is negligible and therefore only the 1:100 year flood-line is indicated on the proposed Settlement Plan. The existing lodge is affected by the said

flood-line and a number of structures are below this line. (In terms of) Section 144 of the National Water Act does not have the effect of prohibiting any development below the flood line. It is merely a requirement that structures or buildings that will be below the 1:100 year floodline must be indicated on the Settlement Plan and this information should be brought to the attention of potential buyers. It is proposed that none of these structures will be transferred to potential buyers. Mitigation measures will be proposed in order to limit the impact of the flood-line on the existing structures. **(See Flood Line report as Annexure N).**

## **7.5 Engineering Services**

### **7.5.1 Introduction**

Nyeleti Consulting (Pty) Ltd was appointed as consulting engineers in order to compile a services availability report for the proposed development (refer to the report attached as **Annexure M**). Although the development falls within the jurisdiction of Lephalale Municipality, the developer will provide all the civil services required in the development. As such, there are no bulk service contributions or boundary contributions payable to the Local Authority.

The developer will maintain the services for the proposed settlement areas and the Local Authority will not be required to take over or maintain any of the services.

### **7.5.2 Roads**

It is proposed that no upgrading of existing roads are required outside the boundaries of the Development (the Roads Agency's comments is awaited this regard). Road D1882 is a gravel road.

Inside the development all main access roads will be gravel roads. Access to housing units will be by one-way concrete/paved paths for golf carts.

### **7.5.3 Storm- Water Drainage**

A tributary of the Mokolo River forms the northern border of the proposed development. There are no existing storm-water pipes that discharge storm water into the river. The major storm-water flow from the catchment happens in sheet flow down to the river.

All storm-water will drain overland with as few disruptions to the natural flow pattern as possible. Access paths to the houses will follow the natural ground level closely so as not to obstruct the flow of storm-water.

If for some reason it should become necessary to construct a minor system, the materials, construction and testing of the storm-water drainage system will comply with the SABS 1200 specification and concrete storm-water pipes with ogee joints and curb inlets manufactured to the Municipality's specification will be used. Brick junction boxes with concrete floor and cover slabs will be constructed according to the Municipality's standard details.

#### **7.5.4 Sewage Reticulation**

There is no existing main sewer located close to the site to which connection can be made. The Development is also too far outside of town to construct an outfall sewer to the nearest existing reticulation.

Numerous alternative sewage treatment plants were investigated by the design team (See Table 5 of the Draft Scoping Report, comparison of various sanitation alternatives). Criteria that were selected were discharge water quality, operational robustness, energy consumption, treatment plant lifespan, maintenance required and cost and treatment size. Of the entire alternative assessed such as micro flush toilets, small residential plastic drum treatment works, wetland reed treatment methods etc, the packaged sewage treatment plant was the most suitable for the proposed project, due to its compliance with all the selected criteria.

It is thus proposed that this development will be serviced with a gravity sewer system connecting to an on-site package wastewater treatment plant capable of handling greatly varying flow volumes and loads.

Sewer flow rates are based on the average figures for a higher income group development as per the "Guidelines for Human Settlement Planning and Design". The proposed materials, construction and testing of the sewage reticulation complies with the SABS 1200 specification. Sewer pipes and fittings will be uPVC (SABS 559). Manholes will be 1000mm internal diameter, precast concrete manholes, constructed of dolomite aggregate (SABS 1294), with step irons (BS 1247). Type 2A (SABS 558) manhole covers will be use for carriageways and Type 4 (SABS 558) for servitudes.

#### **7.5.5 Provision of Water**

The existing buildings on the farm yard close to the river are supplied by 3 boreholes and an existing HDPE water reticulation.

Pump test have been done and the results analyzed by Dr. M Levine (see Annexure G). The sustainable yield calculated from the pump tests conducted on the three production boreholes is 6.5 l/s.

The new internal water reticulation will follow the roads as far as possible in order to limit the scars to the natural environment to the minimum.

Water demand figures are based on the average water consumption figures for a moderate to high development level as per the "Guidelines for Human Settlement Planning and Design".

Land use	Area (m <sup>2</sup> )	No of dwelling units	Flow Rate	Water AADD (Kl /day)
Residential units		68	650 l/day	44.20
Chalets		11	650 l/day	7.15
Staff housing		13	650 l/day	8.45
Lodge		4 (equivalent)	650 l/day	2.60
Other (shop, store, workshop, office, recreational)	6606		400 l/day/100m <sup>2</sup>	26.40
				88.80 Kl/day or 1.03 liter/s

The peak demand may be calculated as follows:

- Domestic peak = 9,1 l/s (instantaneous peak factor of 9)
- Fire flow = 15,0 l/s
- Design flow = 24,1 l/s

The local water supply is sufficient in order to meet the proposed water demand.

Although the current water source is proven to be sustainable, the EIA will investigate the use of water conservation technologies in more details. Possible technologies include rainwater catchment systems, low water use appliances and bathroom fixtures, water recycling management plan etc. Specialist input will be obtained during the EIA phase to promote sustainability.

### 7.5.2 Electricity

The electricity will be supplied from existing Eskom connections on the site. An electrical engineer will be appointed to make the necessary arrangements with the services provider. In the event of Eskom not achieving the desired capacity, special arrangements can be made to power the “commercial components” such as the restaurants, workshops, etc with the present Eskom supply, but provide alternative solutions such as solar power and deep cycle batteries, as well as LPG gas to residential units.

The EIA phase will investigate different energy conservation technologies and methods for grid and non-grid electrification. Examples might include low energy consumption light bulbs, energy star compliance appliances, solar water geysers, solar panel electrification. All the options will be evaluated by specialists during the EIA phase to promote sustainability.

### **7.5.3 Solid Waste Disposal**

It is proposed that the solid be removed from the proposed development area and disposed on approved Municipal Landfill Sites. Approval for the disposal of solid waste has been granted by the Lephalale Municipality in order to utilize the Groothoek disposal site (letter dated 9 May 2011). A further permission was granted by the Modimolle Municipality to utilize the Modimolle landfill site (letter dated 23 February 2011). The removal of solid waste will further form part of a community initiative for local job creation.

**The letters of permission is attached as Annexure O.**

### **7.5.4 Conclusion**

This report dealt with the provision of civil engineering services for the proposed development. It was shown that sustainable engineering services can be provided for the proposed settlement areas. There are measures suggested that will improve the services sustainability of the project. No service provision will be required from the Local Authority.

## **7.6 Principles of Chapter 1 of the DFA, 1995**

### **7.6.1 Principles as Guidelines:**

The development proposal is measured against the General Principles of Chapter 1 of the DFA, 1995:

In Section 2 of the Development Facilitations Act (DFA) – “Applications of principles for land development” – it is stated that that the Chapter 1 General Principles listed in Section 3 should “serve as guidelines by reference to which any competent authority shall exercise any discretion or take any decision” and to “... guide the consideration of land development applications...”

### **7.6.2 Applicable Principles:**

The relevance of each of the thirteen general principles will vary from project to project depending of the nature, scale and aim of a project. The most appropriate principles should thus be selected and the “performance” of the proposed project evaluated against them.

The proposed development can be assessed against the following principles:

- a. **PRINCIPLE 3(1)(c)(ii)** *“Policy, administrative practice and laws should promote efficient and integrated land development in that they promote*



*integrated land development in rural and urban areas in support of each other.”*

The purpose of the settlement plan development for Matswani Game Farm is twofold, namely:

- Strengthening and diversifying the existing game farming operations through substantial capital injection, while
- Creating a game reserve lifestyle recreation/leisure environment for potential visitors, yearning for a bush experience in a natural atmosphere.

In this instance, the proposed development will specifically not be integrated physically with close by towns such as Lephale or Vaalwater, but functionally it cannot be severed from the urban areas due to the need for goods and services that are predominantly provided in the urban areas. In this way, the inflow of tourists to the region will contribute substantially to the local economies, resulting in job creation, etc in the urban areas. The proposed development can therefore be regarded as functionally integrated with the urban areas through the latter's service functions.

**b. PRINCIPLE 3(1)(c)(iii) “Policy, administrative practice and laws should promote efficient and integrated land development in that they promote the availability of residential and employment opportunities in close proximity to or integrated with each other.”**

The proposed development is located some distance from the urban areas of Lephale and Vaalwater but it is located in a predominant extensive game farming area. Furthermore, employment in the farming sector has dwindled to very low levels, mainly due to profitability of conventional farming being under pressure and farming being converted from labour extensive game farming. Presently on a typical game farm of 2 700ha an approximately 13 to 15 workers are employed.

The proposed development projects the appointment of approximately 250+ labourers in the maintenance operations and related commercial activities in the unskilled and semi-skilled categories. The above figure represents an estimated 200 families being provided with a stable income. The project further incorporates a Social Responsibility Strategy. (See Annexure T)

**c. PRINCIPLE 3(1)(c)(iv) “Policy, administrative practice and laws should promote efficient and integrated land development in that they optimize the use of existing resources.”**

The term “resources” in this sense can refer to either essential services such as water and energy, but on the other hand also to natural bushveld habitat as a resource.

Concerning essential services it is well known that even in the urban areas a backlog in the provision of services such as potable water, sewerage, electricity, storm water drainage etc is experienced (refer the Lephalale IDP). In the case of the proposed Matswane Game Farm, no demand for any services will be made to the local municipality who is already under pressure. All services will be privately developed and managed. Hydro-geological investigations have proved that adequate subsurface water is present on the farm and if responsibly managed can provide for the development. Sewerage will be purified on the sites and effluent recycled, thereby optimizing the resource.

Of greater importance is the optimisation of potential game farming land that is currently utilised below its capacity. The climate of the region is conducive to tourism activities all year round. Through the injection of capital derived from the tourism development, the potential of the game reserve can be realised by conservation, game breeding, and the stimulation of small and medium enterprises, tourism and eventually the improvement of the living standards of a whole rural community.

- d. PRINCIPLE 3(1)(c)(v) “Policy, administrative practice and laws should promote efficient and integrated land development in that they promote a diverse combination of land uses, also at the level of individual portions or subdivisions of land.”**

The proposed Matswani Game Farm does not intend to be a self-sufficient ‘township’ through a wide range of land-uses to cater for all needs of residents. It is essentially a “lodge” and it is envisaged the houses will not be permanently occupied. The intended occupation will be weekend and holiday residences. It is therefore not likely that at any time there will be a population on the estate that will justify a wide range of uses such as different housing types, conventional shops, definitely not offices or industry that is not directly related to the game farming, churches, schools, crèches, and the like. For these services and goods, it is expected that the close by towns must still be the providers.

The range of land-uses on the estate will, apart from the game farming and conservation activities, include the residential component that will be reasonably uniform, a number of residences for management staff, houses/quarters for workers and recreational areas with recreation facilities.

- e. PRINCIPLE 3(1)(c)(vi) “Policy, administrative practice and laws should promote efficient and integrated land development in that they discourage the phenomenon of ‘urban sprawl’ in urban areas and contribute to the development of more compact towns and cities.”**

Urban sprawl is the unchecked advance of urban development beyond a stated “Urban Edge” which is typically drawn tightly around towns and cities. The only

developments that can be justified outside of this urban edge line are those developments that are linked to tourism and/or natural resources.

The proposed Matswani Game Farm is both linked to tourism and is heavily reliant on the ongoing game farming activities of the property. As the development will have the dominant character of a game reserve rather than a conventional township, it should not be viewed as “urban” activities and hence not classified under the term “Urban sprawl”.

It should be pointed out that all bulk services will be privately provided on the site by the developer and no link service from any existing township will be connected. This will exclude any possibility of other properties between the proposed game estate and any existing town finding any stimulus to develop that can be attributed to “urban sprawl”.

**f. PRINCIPLE 3(1)(c)(viii) “Policy, administrative practice and laws should promote efficient and integrated land development in that they encourage environmentally sustainable land development practices and processes.”**

A complete Environmental Scoping Report (including various specialist inputs) was compiled by Earth INC Environmental Consultants and will be subject to scrutiny by the Limpopo Department of Economic Development, Environment & Tourism’s (LEDET). This report and its environmental inputs were instrumental to the formulation of development proposals as indicated in the Settlement Plan.

The conclusion and recommendation in this report is that the proposed development is environmentally sustainable, subject to the necessary mitigation measures. LEDET should therefore likely be supporting the application, as the proposed development affects only approximately 2% of the total land area, while the balance is still actively used for conservation the usage is clearly environmentally sustainable.

**g. PRINCIPLE 3(1)(d) “Members of communities affected by land development should actively participate in the process of land development.”**

Public participation on two levels form an integral part of the DFA process:

- The Environmental Scoping process had a public participation process in order to identify and inform possible interested and affected parties as prescribed in the National Environmental Management Act and Regulations.
- Furthermore, the prescribed procedures were followed in terms of Section 21(6) of the Regulations of the DFA in order to inform the general public on the proposed development.

**h. PRINCIPLE 3(1)(e) “The skills and capacities of disadvantaged persons involved in land development should be developed.”**

Currently members of the local community are already finding employment on the farm. The purpose of the Matswani Game Farm is to expand into various other game farming and tourism operations that are more labour intensive. The local community will enjoy preferential employment for a range of job opportunities from unskilled, semi-skilled to skilled labour, to management levels.

In-house training by means of skill development and skill transfers will lead to increased capacity which will not only be to the benefit of these workers and families in the short term, but will lead to capabilities that will make them more competitive in the open market place in the long-run.

Apart from the permanent job opportunities, during the two to three years of development of the various phases of the estate, a vast number of temporary jobs will be required for construction that will range from unskilled to artisans with the opportunities for training and skills advancement.

From the above it is clear that not only a select few will enjoy benefits from the new and temporary job opportunities, but a broad spectrum of workers, mainly sourced from the local community.

**i. PRINCIPLE 3(1)(h)(ii) and (iv) “Policy, administrative practice and laws should promote sustainable land development at the required scale in that they should promote the establishment of viable communities and meet the basic needs of all citizens in an affordable way.”**

Outside capital flowing into the area will not only create new job opportunities but will also play a role in stimulating the local regional economy by creating additional demand for services and goods and either fill spare capacity, expand existing or create new businesses.

The improved game farming and tourism operations will also create micro businesses, particularly for the tourism market. In this regard, “crafts” and other of tourism related products will be on offer such as curios, etc.

**j. PRINCIPLE 3(1)(h)(v) “Policy, administrative practice and laws should promote efficient and integrated land development in that they should ensure the safe utilization of land by taking into consideration factors such as geological formations and hazardous undermined areas.”**

The professional team executed a thorough geotechnical investigation as well as geo-hydrological investigation. The inputs from these studies assisted to plan the layout of the estate in order to ensure stable founding conditions, favourable trenching conditions during construction and the prevention of soil erosion due to

the development. The results of these studies are summarised elsewhere in this memorandum, while the full reports are attached as annexures.

**k. PRINCIPLE 3(1)(j) “Each proposed land settlement area should be judged on its own merits and particular use of land, such as residential, commercial, conservational, industrial, community facility, mining, agricultural or public place, should in advance or in general be regarded as being less important or desirable than any use of land.”**

For the benefit of the local economy and the community of the region, it is important that the best-suited land-use with an acceptable level of environmental/social impact for the property be established. The region is known for extensive game farming and in this regard, the different development plans indicate the land as low agricultural potential. The proposed Matswani Game Farm will enable the substantial expansion of the tourism operations that increase the labour force substantially. Although it is the intention to utilise 98% of the farm for conservation purposes, it is critical to engage the residential component on the less sensitive land, to generate the financial resources to enable the ongoing conservation activities.

It is important to realise that the activity of conservation and tourism/recreation is to a high degree dependent on each other. Without the capital injection, it becomes increasingly difficult to afford conservation and without the pristine bushveld, the “game lodge lifestyle” so desperately required by city dwellers will not be possible. The two types of land-uses of conservation and lodge are thus not competing but must be seen as complimentary, or even mutualistic.

**l. PRINCIPLE 3(1)(k) “Land development should result in security of tenure, provide for the widest possible range of tenure alternatives, including individual and communal tenure, and in cases where land development takes the form of upgrading and existing settlement, not deprived beneficial occupiers of homes or land or, where it is necessary for land or homes occupied by them to be utilized for other purposes, their interest in such land or homes should be reasonably accommodated in some other manner.”**

It is proposed that the units in the Matswani Game Farm be available for sale in full title, in order to provide security for both buyers and banks providing financing. However, no permanent occupation of units will be promoted, such as in conventional townships.

- m. **PRINCIPLE 3(1)(m)** *“Policy, administrative practice and laws should stimulate the effective functioning of a land development market based on open competition between suppliers of goods and services.”*

The proposed development is not a unique concept, but an eco-tourism facility; it is one of many in the northern regions of the country. In his regard, the “game farming estates” competes with golf estates, polo estates, seaside estates, etc.

The effective functioning of open competition between suppliers of goods and services will result from the fact that stands will be sold in full title. The developer will be responsible for the construction of the dwellings, albeit subject to architectural design guidelines. Contractors and suppliers of building materials will not be limited and open competition based on price will be supported.

## **8. IMPLEMENTATION OF THE PROPOSED SETTLEMENT AREA**

### **8.1 Development checklist**

In terms of the Lephalale Local Municipality Spatial Development Framework, 2008 (page 32-33 and page 79-80), applicable guidelines are outlined that should guide the development of agricultural land. These guidelines can serve as a checklist in order to ensure that the professional team took all the relevant issues in consideration. The applicable points as listed below and the applicable paragraph numbers where these issues were addressed in the memorandum are indicated:

#### **8.1.1 All applications for subdivision or change of land use in agricultural districts should be considered on merit:**

- The merit of the application has been addressed in the market analysis as discussed under paragraph 5.1 above;
- The Town Planning Guidelines discussed merit in paragraph 6.2 above. Those guidelines were derived from the SDF, which promulgates eco-tourism developments;
- In paragraph 6.8 above under the Agricultural Potential analysis, it was stated that the potential is “very low to none.” Wildlife conservation and eco-tourism was identified as the preferred land use;
- In paragraph 7, advantages and disadvantages of the proposed land use were discussed and it was concluded that the advantages overruled;
- In paragraph 7.4.9 it was argued that the proposed land use will be compatible with surrounding land uses; and

- In paragraph 7.5 evidence was given that the proposed eco-tourism development complies with the General Principles of Chapter 1 of the DFA, 1995.

### **8.1.2 The quality of the land and agricultural potential of the land under discussion should be investigated with every development proposal:**

- The ecological sensitivity as well as agricultural potential has been investigated as discussed in paragraph 6.5.2 and 6.6 respectively.

### **8.1.3 Motivation for the change in land use or subdivisions should indicate the future agricultural potential of the land under discussion and its relationship with the surrounding area:**

- Paragraph 6.2.2 above reflects page 53 of the SDF; ecological diversity within the area has been significantly impacted on by intensive agricultural practices in some areas. The lack of adequate conservation areas and strategic ecological links is probably leading to loss of species.
- In paragraph 7.4.10 is stated that Matswani does not fall within the Waterberg Biosphere Reserve, but it is in close proximity to the buffer zone of the Biosphere.
- Also in paragraph 7.4.10 it was indicated that the aim of the design was to blend the proposed development into the natural environment, minimizing the impact and therefore complement and support initiatives and their conservation objectives for the area.
- It is thus envisaged the proposed development will support strategic ecological links that will be beneficial to the ecological sustainability in the surrounding area.

### **8.1.4 The development proposals should take into consideration the current land uses of the surrounding area:**

- It was indicated in paragraph 6.2.3 that in terms of the Lepalale SDF 2008 (Map 2 Spatial Reality), the application property is situated between four nature reserves namely the Makolo Dam Nature Reserve to the west, the Welgevonden Nature reserve to the south, Kwalata Nature Reserve to the east and the D' Nyala Nature Reserve to the north of the application property.
- The application site further situated in close proximity of the Waterberg Biosphere Submitted core is to the west of the application site.
- Other land uses in the surrounding area are agricultural.
- The Matswani reserve complements other initiatives and is complementary to current land uses of the surrounding area.

**8.1.5 The availability of engineering services, particularly potable water, sewerage disposal, appropriate access roads and storm-water runoff should be addressed in all development proposals:**

- Nyeleti Consulting (Pty) Ltd was appointed as consulting engineers in order to compile a services availability report for the proposed development. All the services aspects as required above have been addressed in this report (refer to the report attached as Annexure M as well as paragraph 7 above).

**8.1.6 The location of the proposed development in relation to road infrastructure should be considered:**

- Paragraph above 3.2 describes the location of the proposed development in relation to existing road infrastructure: "The application property is located approximately 35 km north west of Vaalwater on the R33 road to Ellisras and 11.5 km north of Hermanusdorings on District road No D1882".
- Paragraph 6.2.3 describes the significance of these roads in terms of the SDF: "The application property is situated on a link road between a First Order Link and a Second Order Road. The first order road is further identified as a Tourism and Logistic corridor in terms of the SDF.

**8.1.7 The development proposal should indicate the impact of new infrastructure provisioning on agricultural land. Service agreements with service providers, where the developer is not providing the service, should be attached with all development proposals:**

- The above is addressed under paragraph 7.6.2 and sub-paragraph c as well as the Services Report (attached as **Annexure M**) as well as paragraph 7 Above): All services will be privately developed and managed. Hydro-geological investigations have proved that adequate subsurface water is present on the farm and if responsibly managed can provide for the development. Sewerage will be purified on the sites and effluent recycled, thereby optimizing the resource.
- Of greater importance is the optimisation of potential game farming land that is currently utilised below its capacity. The climate of the region is conducive to tourism activities all year round. Through the injection of capital derived from the tourism development, the potential of the game reserve can be realised by conservation, game breeding, and the stimulation of small and medium enterprises, tourism and eventually the improvement of the living standards of a whole rural community.



**8.1.8 Prime agricultural land and irrigation schemes should be protected from a change in land use that is not supportive of the agricultural potential of the land and subdivisions that are not sustainable in the long run should not be considered:**

- Paragraph 6.6 above addressed this issue and Rehab Green Monitoring Consultants CC concluded that the agricultural potential was classified as very low to none and the soils are not suitable for crop production or pastures. The land uses recommended for the area were therefore restricted to wildlife conservation and ecotourism. There are no irrigation schemes applicable on the application property.
- The sustainability has been addressed under paragraph 7.6.2 and sub-paragraph k: “The proposed Matswani Game Farm will enable the substantial expansion of the tourism operations that increase the labour force substantially. Although it is the intention to utilise 98% of the farm for conservation purposes, it is critical to engage the residential component on the less sensitive land, to generate the financial resources to enable the ongoing conservation activities”.

**8.1.9 A change of land use or subdivision of land within a node should get preference above a similar application at a dispersed locality:**

- It was indicated in paragraph 6.2.3 that in terms of the Lepalale SDF 2008 (Map 2 Spatial Reality), the application property is situated between four nature reserves namely the Makolo Dam Nature Reserve to the west, the Welgevonden Nature reserve to the south, Kwalata Nature Reserve to the east and the D’ Nyala Nature Reserve to the north of the application property. The application site further situated in close proximity of the Waterberg Biosphere. It can be argued that the application property is situated within a “node of eco-tourism” activities.
- The Matswani reserve complements other initiatives and is complementary to current land uses of the surrounding area.

**8.1.10 The impact on the environment should be addressed and the protection of natural and heritage areas should be regarded as essential:**

- Earth INC Environmental Consultants conducted an Environmental Impact Assessment for the proposed development. The protection of natural and heritage sites were addressed in this report (refer to paragraph 6.5 above and also see annexure I and J).

**8.1.11 The number of units created through subdivision or any other form of ownership (sectional title, share block scheme, etc.) for non-agricultural use should be limited to a maximum of 1 unit per 10 hectares, or otherwise township establishment procedures must be followed:**

- The number of units created through full title is addressed in paragraph 7.4.5 above. The proposed development density is **1 unit per 31 hectares**, which is a much lower density than recommended in the SDF.

**8.1.12 All development is dependent on the availability of bulk infrastructure and the future spatial planning of the area. The major road network for future development should be considered and the proposed subdivisions need to accommodate these proposed future road alignments or any other bulk infrastructure alignment within the development proposed:**

- As indicated in paragraph 8.1.7, all services will be privately developed and managed. Hydro-geological investigations have proved that adequate subsurface water is present on the farm and if responsibly managed can provide for the development. Sewerage will be purified on the sites and effluent recycled, thereby optimizing the resource. The availability of bulk infrastructure is thus not necessary for the proposed development.
- The proposed development will not be affected by proposed future road alignments.

**8.1.13 A map indicating the 1:100 year flood line as determined by a professional engineer must accompany all applications adjacent to rivers and public dams:**

- This aspect is addressed in paragraph 7.4.11: "An engineer was appointed to calculate the 1:100 year flood line. The flood lines are indicated on the proposed settlement plan. The existing lodge is affected by the flood-line and a number of structures are below this line. The layout design for all new proposals was guided by the flood lines in order to not extend a proposed footprint (building platform) in the potential flood areas. Mitigation measures will be proposed in order to limit the impact of the flood-line on the existing structures".

**8.1.14 Residential development densities along rivers and dams may not exceed 1 residential unit per 15 metres waterfront:**

- The existing chalets and staff houses are the only residential structures along rivers and dams. The current number of residential units is 16 that are spaced along the river. The river frontage measures approximately 744 m in length, which equates 1 residential unit per approximately 47m. The densities along rivers and dams are thus much lower as suggested by the SDF.

- No new units are planned along the river frontage.

**8.1.15 Residential development densities on agricultural land may not exceed 1 residential unit per 10 ha, except with the prior approval of the Lephalale Municipality and provided that the prescribed application procedures have been followed:**

- Refer to paragraph 8.1.11 and 7.4.5 above: "The proposed development density is 1 unit per 31 hectares, which is a much lower density than recommended in the SDF".

**8.1.16 Proposed developments should not sterilize strategic mineral deposits:**

- Paragraph 4.2.3 above addresses the issue of mineral rights. In a letter dated 20 October 2009 the Department of Minerals and Energy, Directorate Mineral Regulation of the Limpopo Province confirmed that no mining right has been issued on the application properties.

**8.1.17 Proposed developments should not occur in areas of unstable geological formations:**

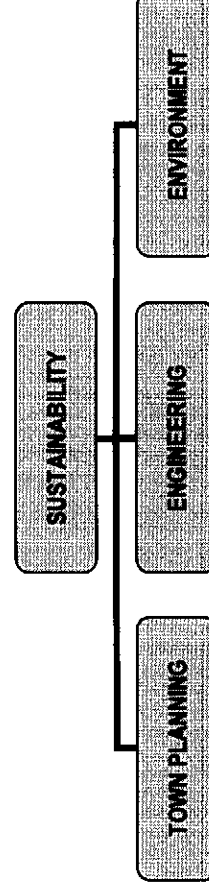
- The Geotechnical Hub (Pty) Ltd was appointed to conduct a geotechnical investigation for the proposed settlement areas. The detailed report is included as **Annexure F** and is summarized in paragraph 6.3 above, makes recommendations in order to ensure that all appropriate standards are complied with.

**8.1.18 Developers may be required to submit impact studies or any other study to support decision-making:**

- Extensive studies have been conducted in order to inform the planning process. The studies are discussed under paragraph 6 of this memorandum. The studies include the following: Geo technical, Geohydrological aspects, Environmental sensitivities, Fauna, Vegetation and Agricultural potential.

## **8.2 Sustainable development**

The proposed settlement area can be implemented only if the proposal is sustainable. Sustainability of the project rests on three pillars, which can schematically be presented as follows:



In the previous discussions, it was unanimously concluded that sustainability of the project is viable. In terms of the Analysis and Development Proposal and Motivation as discussed above, many suggestions and recommendations were made in order to ensure the sustainability of this proposal. Approvals normally contain conditions that should be complied with before the Municipality consider the approval of Site Development Plans and Building Plans. If this application is recommended for approval, the following conditions of approval can be considered in order to safeguard the sustainability of the project. The purpose of this section is thus to summarize all the recommendations and to ensure that these guidelines can effortlessly be captured as conditions of approval.

### 8.3 Town planning sustainability

The definition of Town Planning sustainability in this regard, can be defined as the orderly use of land in order to address all relevant issues and guidelines, as identified under Analysis and Development Proposal and Motivation as discussed above.

The town planning sustainability can only be ensured if proper development controls are laid down.

#### 8.3.1 Land uses

In terms of the Analysis and Development Proposal and Motivation as discussed above following footprints (refer to paragraph 7.4.3 above) and the positions as indicated on the settlement plan were proved to be sustainable:

Matswami Development Proposal			
Existing Development			
Land Use	Structures	Total Size (m <sup>2</sup> )	Description
Chalets	11	1068.00	Two and four bed chalets to cater for a maximum of 30 visitors
Staff Housing	5	1195.20	Accommodation for staff
Recreation Area	3	768.00	Museum with trophy display, Restaurant, Kitchen, Bar, Wine Cellar, Lounge, Pool and Deck (72 guests)
Office	1	180.00	Office for purposes of the management of the establishment
Shop	1	240.00	Shop for the sale of curios and basic consumables
Store	6	1065.8	Stores for all related storage
Workshop	1	200.40	Workshop for all related maintenance
Lodge	1	618.00	Consist of 8 guest rooms and includes a kitchen and bar facilities
Other related uses	7	916.80	Uses Include: Slaughter House, House Keeping, Ablution, Lapas, Covered Parking, Laundry
<b>Sub Total</b>	<b>36</b>	<b>6252.20</b>	

Proposed New Development			
Land Use	Structures	Total Size (m <sup>2</sup> )	Description
Staff Housing	8	1377.60	Accommodation for staff
Recreation Area	6	360.00	Bar, Lounge, Pool, Deck and Recreational Facilities (approximately 55 guests for each facility)
Office	1	360.00	Office for purposes of the management of the establishment
Shop	1	360.00	Shop for the sale of curios and basic consumables
Store	5	1000.00	Stores for all related storage
Workshop	1	240.00	Workshop for all related maintenance
Lodge	68	24480.00	Self catering units to cater for a maximum of 325 guests
Other related uses	8	1800.00	Uses Include: House Keeping, Ablution, Lapas, Covered Parking, Laundry
<b>Sub Total</b>	<b>94</b>	<b>29977.60</b>	
<b>TOTAL</b>	<b>128</b>	<b>35744.80</b>	

It is proposed that the above uses be promulgated on 79 full title portions and under four (4) types of zoning as per the proposed Settlement Plan and Proposed Amendment Scheme (**Annexure S**) namely:

Zoning	Number of Portions	Portion Numbers	Area (ha)
Special for Lodge	2	1, 77	11.2
Residential 1	69	3-12, 14-22, 24-49, 51-59, 61-74, 78	10.4
Special For Club House	6	2, 13, 23, 50, 60, 75	0.9
Private Open Space	2	76, RE	2731.5
Total	79	1-79	2754

### 8.3.2 Suggested Town Planning Conditions

The following conditions are suggested in order to ensure sustainability for the project:

- The position and size of the proposed development should be according to Settlement Plan Nr: **P1145/2** As well as the Land Use Table Above. Not more than

10% deviation in terms of size and position from the Land Use Table above and approved Settlement Plans will allowed;

- The proposed Conditions of Establishment will capture all relevant town-planning conditions.

#### **8.4 Engineering Services**

Paragraph 7.5 above dealt with the provision of civil engineering services for the proposed development. It was shown that sustainable engineering services can be provided for the proposed settlement areas. No service provision will be required from the Local Authority.

It is the responsibility of the project engineer to, subsequent to the approval and before implementation, conclude a Service Agreement between the developer and the Lephalale Municipality. Although no engineering services are required from the municipality, the approval of a Services Agreement as well as approval of the services installation will be required. The involvement of the local authority on this level will ensure that services are installed to an acceptable standard in order to safeguard the end user. It will be agreed that the maintenance will not be handed over to the municipality but will remain the responsibility of the developer. The suggested engineering conditions are captured in the Proposed Conditions of Establishment as well as the proposed Amendment Scheme documents. **See Annexures R and S**

#### **8.5 Environmental Sustainability**

A proposed Environmental Management Plan that will ensure the sustainable development of the area was compiled. Certain mitigation measures to be implemented during construction as well as operation of the project are included. In paragraph 10 and 11 of the Draft scoping, report (See attached Final Scoping Report as annexure J), the possible impacts on both the construction phase as well as the operational phase have been summarized. Earth INC Environmental Consultants further suggested mitigation measures that will minimize these impacts.

A parallel application to the DFA process is currently circulating at the Limpopo Department of Economic Development, Environment & Tourism's (LEDET). Approval in terms of the National Environmental Management Act (NEMA) of 1998 (Act 107 of 1998) will impose certain conditions that will be adhered to. The mitigation measures that will ensure environmental sustainability will be included under these conditions.

## **9. CONCLUSION**

Application is herewith made in terms of Section 49 as well as Regulation 21 of the Development Facilitation Act, 1995 (Act 67 of 1995) for the establishment of settlement areas for a private game farming estate development.

As indicated in the discussions above, all the expert advice prove that the proposed project can be sustainability as well as viable. The project proposal will further make a positive contribution to the surrounding community and area. The proposed application is in line with the policy documents and guidelines for development in agricultural areas. We kindly request that the application be recommended for approval.

**CityScope town planners**

**July 2011**

# IN THE LIMPOPO DEVELOPMENT TRIBUNAL

Reference Number : **LH 12/1/4/3/1/2/5/14(DO)**

In the application of: **Daniel Gerhardus Saayman** from **CityScope Town Planners** on behalf of **Matswani Game Farm (Pty) Ltd** being the Landowner

In respect of the land known as:

- **THE REMAINDER OF THE FARM HANOVER 181 KQ**
- **THE REMAINDER OF PORTION 3 OF THE FARM GROENFONTEIN 207 KQ**
- **THE FARM KEEROM 208 KQ**

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## APPLICATION FOR ESTABLISHMENT OF SETTLEMENT AREAS

(Application in terms of Regulation 21 of the  
Development Facilitation Regulations)

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### PART I : ACKNOWLEDGEMENT OF RECEIPT

To: CityScope Town Planners  
P O Box 72780  
LYNNWOOD RIDGE  
0040  
Attention: Mr D G Saayman

I hereby acknowledge receipt of the original and two copies of Parts II and III of this form, together with the documents referred to below and I hereby allocate reference number \_\_\_\_\_ to this application.

1. **Covering Letter** \_\_\_\_\_
2. **Application form completed** \_\_\_\_\_
3. **Memorandum** \_\_\_\_\_
4. **Annexures A to T** \_\_\_\_\_
5. \_\_\_\_\_

---

**Designated Officer**

**Date of receipt**



**PART II : APPLICATION****The Designated Officer:**

Mr. Thomas Netshitomboni

The Limpopo Development Tribunal

Office No 323, Hensa Building,  
 Corner of Landros Mare and Rabe Streets  
 Polokwane 0700

Applicants Name : **Daniel Gerhardus Saayman from  
 Cityscope Town Planners on behalf of Matswani Game Farm  
 (Pty) Ltd** the land owner

Applicants Address : P O Box 72780

LYNWOOD RIDGE

0040

Applicants Tel : 012-997-0822

Applicants Facsimile No. : 086-622-6910

Contact Person : D. G. Saayman/ J. Barnard

**APPLICATION FOR ESTABLISHMENT OF A LAND DEVELOPMENT AREA ON:**

- **THE REMAINDER OF THE FARM HANOVER 181 KQ**
- **THE REMAINDER OF PORTION 3 OF THE FARM GROENFONTEIN 207 KQ**
- **THE FARM KEEROM 208 KQ**

I/We, the applicant described above, being the duly authorized agent or contractor of the owner of the above-mentioned land, hereby apply for a Land Development Area on the land described herein and submit the particulars that appear hereafter.

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Signature of Applicant

## 1. DOCUMENTS FORMING PART OF THE APPLICATION

(1) The following Documents are filed with the Designated Officer in support of the application:

- |  |      |    |
|--|------|----|
|  | ✓YES | NO |
|--|------|----|
- (a) A layout/settlement plan of proposed land development area.
- |  |      |    |
|--|------|----|
|  | ✓YES | NO |
|--|------|----|
- (b) A memorandum in support of the application, setting out all relevant facts and circumstances - and specifically including a report on:
- (i) whether the application should be prioritised on the basis that delays are likely to adversely affect the ability of intended beneficiaries to afford sites or housing units or are likely to affect a substantial number of persons or persons with particularly pressing needs;
- |  |     |     |
|--|-----|-----|
|  | YES | ✓NO |
|--|-----|-----|
- (ii) the manner in which communities and/or persons affected by the land development and persons who may settle on such land, will participate and be consulted or have participated and been consulted, and the outcome of such consultation, in the process of the establishment of a land development area;
- |  |     |     |
|--|-----|-----|
|  | YES | ✓NO |
|--|-----|-----|
- (iii) basic assessment report of the impact of the development on the environment as set out in regulation 31;
- |  |      |    |
|--|------|----|
|  | ✓YES | NO |
|--|------|----|
- (iv) any laws and restrictive conditions the applicant will ask the Tribunal to suspend and the steps taken by the applicant, if any, in terms of any other applicable law for the removal of such a condition or the obtaining of any exemption from such law;
- |  |     |     |
|--|-----|-----|
|  | YES | ✓NO |
|--|-----|-----|
- (v) the extent to which the development complies with the principles set out in Chapter 1 of the Act;
- |  |      |    |
|--|------|----|
|  | ✓YES | NO |
|--|------|----|
- (vi) the extent to which, if applicable, the development complies with the land development objectives (Chapter IV of the Act) applicable in the area.
- |  |      |    |
|--|------|----|
|  | ✓YES | NO |
|--|------|----|
- (c) A copy of the title deed(s) and diagram(s) to the land.
- |  |      |    |
|--|------|----|
|  | ✓YES | NO |
|--|------|----|

- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---|-----------------------------|
- (d) A copy of every deed of servitude relating to the land (only if not covered by certificate in terms of subparagraph (o)).
- |     |  |
|-----|--|
| YES | <input checked="" type="checkbox"/> NO |
|-----|--|
- (e) A copy of every mortgage bond(s) relating to the land together with the bondholder's consent, if applicable (only if not covered by certificate in terms of subparagraph (o)).
- |     |  |
|-----|--|
| YES | <input checked="" type="checkbox"/> NO |
|-----|--|
- (f) A copy of every certificate of mineral rights and cession thereof, together with the mineral rights holder's consent, if applicable (only if not covered by certificate in terms of subparagraph (o)).
- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---|-----------------------------|
- (g) The owner's consent and/or power(s) of attorney, if applicable.
- |     |  |
|-----|--|
| YES | <input checked="" type="checkbox"/> NO |
|-----|--|
- (h) A copy of the land availability agreement, if any.
- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---|-----------------------------|
- (i) A copy of the services agreement, if already concluded.
- |     |  |
|-----|--|
| YES | <input checked="" type="checkbox"/> NO |
|-----|--|
- (j) A social impact agreement, if applicable.
- |     |  |
|-----|--|
| YES | <input checked="" type="checkbox"/> NO |
|-----|--|
- (k) Documentation regarding the provision of community facilities and the responsibilities of public authorities in this regard; responsibilities of public authorities in this regard.
- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---|-----------------------------|
- (l) If the applicant is a company, close corporation or other legal entity other than a natural person, a copy of a valid authorizing resolution.
- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---|-----------------------------|
- (m) A flood line certificate indicating whether the land is or is not subject to a 1 in 50 year flood.
- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---|-----------------------------|
- (n) A geotechnical report.
- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---|-----------------------------|
- (o) A certificate from a conveyancer indicating the conditions of title or servitude(s) recorded in the title deed(s) that affect the proposed land development.
- |     |  |
|-----|--|
| YES | <input checked="" type="checkbox"/> NO |
|-----|--|
- (p) Application for a registration arrangement substantially in the form of Annexure G, if applicable.



Vegetation And Fauna Report	Annexure K
Settlement Plan	Annexure L
Engineering Services Report	Annexure M
Flood Line Report	Annexure N
Correspondence regarding Solid Waste	Annexure O
Proposed Subdivision and Consolidation Plan	Annexure P
DME Correspondence	Annexure Q
Proposed Condition of Establishment	Annexure R
Proposed Amendment Scheme	Annexure S
Report on Social Responsibility	Annexure T

## 2. SPECIFIC INFORMATION REGARDING PROPOSED LAND DEVELOPMENT AREA

(1) Name of proposed land development area:

**Matswani Game Farm**

(2) Title deed description of every portion of the land on which the proposed land development area is to be established:

No	Property Description	Title Deed
1	The Remainder of the farm Hanover 181 KQ	T131863/98
2	The Remainder of Portion 3 of the farm Groenfontein 207 KQ	T131864/98
3	The Farm Keerom 208 KQ	T131864/98

(3) Full name(s) of registered owner(s) of the land.

No	Property Description	Owner
1	The Remainder of the farm Hanover 181 KQ	Matswani Game Farm (Pty) Ltd No.98/16697/07
2	The Remainder of Portion 3 of the farm Groenfontein 207 KQ	Matswani Game Farm (Pty) Ltd No.98/16697/07
3	The Farm Keerom 208 KQ	Matswani Game Farm (Pty) Ltd No.98/16697/07

(4) The land is **not** mortgaged.

(5) Mineral rights **have not** been severed from the ownership of the land and are held by the **State**

The Republic of SA                      under Certificate No.    N/a

---

(6) A lease of the rights to minerals **has not been granted** the particulars of which are as follows:\*

N/A

---

(7) A prospecting contract **has not** been entered into, the particulars of which are as follows:\*

N/A

---

(8) The proposed land development area –

(a) is situated within the local government body area of

**Lephalale Local Municipality**

---

(b) Adjoins the following local government body areas:

- **Modimole Local Municipality**

(9) The proposed land development area falls within the area of the town-planning scheme:

### The Lephalale Extended Town Planning Scheme, 2005

- (10) Proposed land-use(s) in a land development area excluding small-scale farming in terms of Chapter V of the Act and total number of erven for each use (if applicable). A layout plan indicating the uses assigned to portions or percentages of land may be attached if land is not to be subdivided. Note : If the Interim land-Use Conditions set out in Annexures to the Development Facilitation Regulations will be used, the following categories should be changed to correspond to the Annexures. Similarly, if an existing zoning scheme is to be extended also to apply to the land development area, the following categories must be amended to correspond to the categories in the zoning scheme.

**N/A**

- (11) Proposed land-use(s) (the following are examples only) in a land development including small-scale farming in terms of Chapter VI of the Act and total number of erven for each use (if applicable). A layout plan indicating the uses assigned to portions or percentages of land may be attached if land is not to be subdivided.

Matswani Development Proposal			
Existing Development			
Land Use	Structures	Total Size (m <sup>2</sup> )	Description
Chalets	11	1068.00	Two and four bed chalets to cater for a maximum of 30 visitors
Staff Housing	5	1195.20	Accommodation for staff
Recreation Area	3	768.00	Museum, Trophy Display, Restaurant, Kitchen, Bar, Wine Cellar, Lounge, Pool and Deck (72 guests)
Office	1	180.00	Office for purposes of the management of the establishment
Shop	1	240.00	Shop for the sale of curios and basic consumables
Store	4	580.80	Stores for all related storage
Workshop	1	200.40	Workshop for all related maintenance
Lodge	1	618.00	Consist of 8 guest rooms and includes a kitchen and bar facilities
Other related uses	7	916.80	Uses Include: Slaughter House, House Keeping, Ablution, Lapas, Covered Parking, Laundry
<b>Sub Total</b>	<b>34</b>	<b>5767.20</b>	

Proposed New Development (Expansion)			
Land Use	Structures	Total Size (m <sup>2</sup> )	Description
Staff Housing	8	1377.60	Accommodation for staff
Recreation Area	6	360.00	Bar, Lounge, Pool, Deck and Recreational Facilities (approximately 55 guests for each facility)
Office	1	360.00	Office for purposes of the management of the establishment
Shop	1	360.00	Shop for the sale of curios and basic consumables
Store	5	1000.00	Stores for all related storage
Workshop	1	240.00	Workshop for all related maintenance
Lodge	68	24480.00	Self catering units to cater for a maximum of 325 guests
Other related uses	8	1800.00	Uses Include: House Keeping, Ablution, Lapas, Covered Parking, Laundry
Sub Total	94	29977.60	
<b>TOTAL</b>	<b>128</b>	<b>35744.80</b>	

It is proposed that the above uses be promulgated on 79 full title portions and under four (4) types of zoning as per the proposed Settlement Plan and Proposed Amendment Scheme (**Annexure U**) namely:

Zoning	Number of Portions	Portion Numbers	Area (ha)
Special for Lodge	2	1, 77	11.2
Residential 1	69	3-12, 14-22, 24-49, 51-59, 61-74, 78	10.4
Special For Club House	6	2, 13, 23, 50, 60, 75	0.9
Private Open Space	2	76, RE	2731.5
Total	79	1-79	2754

(12) The land on which the land development area will be established **was not** made available to the land development applicant.

N/A



and the conditions on which the land has been made available are contained in a land availability agreement, a copy of which is attached to this application/has been lodged with the Designated Officer for approval on .....**N/A**.....(state the date)\*;

or

\*will be developed by the land development applicant on behalf of

**N/A**

---

[insert full name of owner] in the land development applicant's own name by virtue of a consent granted by the above-mentioned owner, a copy of which is attached to this application;

**N/A**

---

\* Delete whichever is not applicable

**Heritage impact assessment for the  
PROPOSED LODGE DEVELOPMENT AT MATSWANI GAME FARM,  
VAALWATER REGION, LIMPOPO PROVINCE**

**HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED LODGE DEVELOPMENT AT MATSWANI GAME FARM, VAALWATER REGION, LIMPOPO PROVINCE**

**Report No:** 2011/JvS/031  
**Status:** Final  
**Revision No:** 0  
**Date:** April 2011

**Prepared for:**  
EARTH INC  
**Representative:** Ms. C Smith

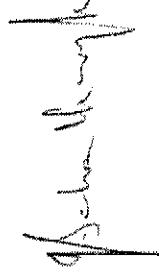
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**Prepared by:**  
J van Schalkwyk (D Litt et Phil), Heritage Consultant  
ASAPA Registration No.: 168  
**Principal Investigator:** Iron Age, Colonial Period, Industrial Heritage

**Postal Address:** 62 Coetzer Avenue, Monument Park, 0181  
**Mobile:** 076 790 6777  
**Fax:** 012 347 7270  
**E-mail:** jvschalkwyk@mweb.co.za

**Declaration:**

I, J.A. van Schalkwyk, declare that I do not have any financial or personal interest in the proposed development, nor its developers or any of their subsidiaries, apart from the provision of heritage assessment and management services.



J A van Schalkwyk (D Litt et Phil)  
Heritage Consultant  
April 2011

**EXECUTIVE SUMMARY**

**HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED LODGE DEVELOPMENT AT MATSWANI GAME FARM, VAALWATER REGION, LIMPOPO PROVINCE**

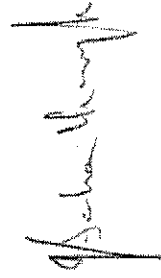
Matswani Game Farm, a privately owned game farm located in Limpopo Province, proposes to build 70 houses to be sold to the public as exclusive get-away accommodation. This development is in addition to the existing lodge that was established some years ago.

In accordance with Section 38 of the NHRA, an independent heritage consultant was therefore appointed by **Earth Inc Environmental Consultants** to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area in which the above development is planned, to assess the significance thereof and to consider alternatives and plans for the mitigation of any adverse impacts.

The cultural landscape qualities of the region essentially consists of a single component, i.e. a rural area in which the human occupation is made up of a pre-colonial element (Stone Age and Iron Age) as well as a much later colonial (farmer) component.

- As no sites, features or objects of cultural heritage significance were identified in the study area, there would be no impact as a result of the proposed development.

Therefore, from a heritage point of view it is recommended that the proposed development be allowed to continue. However, it is requested that should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.



J A van Schalkwyk  
Heritage Consultant  
April 2011

**TECHNICAL SUMMARY**

<b>Property details</b>						
Province	Limpopo					
Magisterial district	Waterberg					
Local municipality	Lephalale					
Topo-cadastral map	2427BB					
Closest town	Vaalwater					
Farm name	Keerom 208KQ					
Portions/Holdings	-					
Coordinates	Centre point					
	No	Latitude	Longitude	No	Latitude	Longitude
1	S 24.09676	E 27.85205				

<b>Development criteria in terms of Section 38(1) of the NHR Act</b>		Yes/No
Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length		No
Construction of bridge or similar structure exceeding 50m in length		No
Development exceeding 5000 sq m		Yes
Development involving three or more existing erven or subdivisions		No
Development involving three or more erven or divisions that have been consolidated within past five years		No
Rezoning of site exceeding 10 000 sq m		No
Any other development category, public open space, squares, parks, recreation grounds		No

<b>Development</b>	
Description	Development of
Project name	Matswani

<b>Land use</b>	
Previous land use	Farming
Current land use	Game farming/Lodge

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**GLOSSARY OF TERMS AND ABBREVIATIONS****TERMS**

**Study area:** Refers to the entire study area as indicated by the client in the accompanying Fig. 1 & 2.

**Stone Age:** The first and longest part of human history is the Stone Age, which began with the appearance of early humans between 3-2 million years ago. Stone Age people were hunters, gatherers and scavengers who did not live in permanently settled communities. Their stone tools preserve well and are found in most places in South Africa and elsewhere.

Early Stone Age                    2 000 000 - 150 000 Before Present  
 Middle Stone Age                150 000 - 30 000 BP  
 Late Stone Age                    30 000 - until c. AD 200

**Iron Age:** Period covering the last 1800 years, when new people brought a new way of life to southern Africa. They established settled villages, cultivated domestic crops such as sorghum, millet and beans, and they herded cattle as well as sheep and goats. These people, according to archaeological evidence, spoke early variations of the Bantu Language. Because they produced their own iron tools, archaeologists call this the Iron Age.

Early Iron Age                    AD 200 - AD 900  
 Middle Iron Age                 AD 900 - AD 1300  
 Late Iron Age                     AD 1300 - AD 1830

**Historical Period:** Since the arrival of the white settlers - c. AD 1840 - in this part of the country

**ABBREVIATIONS**

ADRC	Archaeological Data Recording Centre
ASAPA	Association of Southern African Professional Archaeologists
BP	Before Present
CS-G	Chief Surveyor-General
EIA	Early Iron Age
ESA	Early Stone Age
LIA	Late Iron Age
LSA	Later Stone Age
HIA	Heritage Impact Assessment
MSA	Middle Stone Age
NASA	National Archives of South Africa
NHRA	National Heritage Resources Act
PHRA	Provincial Heritage Resources Agency
SAHRA	South African Heritage Resources Agency

## **HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED LODGE DEVELOPMENT AT MATSWANI GAME FARM, VAALWATER REGION, LIMPOPO PROVINCE**

### **1. INTRODUCTION**

Matswani Game Farm, a privately owned game farm located in Limpopo Province, proposes to build 70 houses to be sold to the public as exclusive get-away accommodation. This development is in addition to the existing lodge that was established some years ago.

South Africa's heritage resources, also described as the 'national estate', comprise a wide range of sites, features, objects and beliefs. According to Section 27(18) of the National Heritage Resources Act (NHRA), Act 25 of 1999, no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any heritage site without a permit issued by the heritage resources authority responsible for the protection of such site.

In accordance with Section 38 of the NHRA, an independent heritage consultant was therefore appointed by **Earth Inc Environmental Consultants** to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area in which the development is planned, to assess the significance thereof and to consider alternatives and plans for the mitigation of any adverse impacts.

This HIA report forms part of the Environmental Impact Assessment (EIA) as required by the EIA Regulations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and is intended for submission to the South African Heritage Resources Agency (SAHRA).

### **2. TERMS OF REFERENCE**

The aim of this HIA, broadly speaking, is to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area where it is planned to develop the transmission line.

The scope of work for this study consisted of:

- Conducting of a desk-top investigation of the area, in which all available literature, reports, databases and maps were studied;
- A visit to the proposed development area.

The objectives were to

- Identify possible archaeological, cultural and historic sites within the proposed development area;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.



Table 1: Applicable category of heritage impact assessment study and report.

Type of study	Aim	SAHRA involved	SAHRA response
Heritage Impact Assessment	<p>The aim of a full HIA investigation is to provide an informed heritage-related opinion about the proposed development by an appropriate heritage specialist. The objectives are to identify heritage resources (involving site inspections, existing heritage data and additional heritage specialists if necessary); assess their significances; assess alternatives in order to promote heritage conservation issues; and to assess the acceptability of the proposed development from a heritage perspective.</p> <p>The result of this investigation is a heritage impact assessment report indicating the presence/ absence of heritage resources and how to manage them in the context of the proposed development.</p> <p>Depending on SAHRA's acceptance of this report, the developer will receive permission to proceed with the proposed development, on condition of successful implementation of proposed mitigation measures.</p>	<p>Provincial Heritage Resources Authority</p> <p>SAHRA Archaeology, Palaeontology and Meteorites Unit</p>	<p>Comments on built environment and decision to approve or not</p> <p>Comments and decision to approve or not</p>

### **3. HERITAGE RESOURCES**

#### **3.1 The National Estate**

The NHRA (No. 25 of 1999) defines the heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations that must be considered part of the national estate to include:

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds, including-
  - ancestral graves;
  - royal graves and graves of traditional leaders;
  - graves of victims of conflict;
  - graves of individuals designated by the Minister by notice in the Gazette;
  - historical graves and cemeteries; and
  - other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- sites of significance relating to the history of slavery in South Africa;
- movable objects, including-
  - objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - objects to which oral traditions are attached or which are associated with living heritage;
  - ethnographic art and objects;
  - military objects;
  - objects of decorative or fine art;
  - objects of scientific or technological interest; and
  - books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

#### **3.2 Cultural significance**

In the NHRA, Section 2 (vi), it is stated that "cultural significance" means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This is determined in relation to a site or feature's uniqueness, condition of preservation and research potential.

According to Section 3(3) of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;

- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- sites of significance relating to the history of slavery in South Africa.

A matrix was developed whereby the above criteria were applied for the determination of the significance of each identified site (see Appendix 1). This allowed some form of control over the application of similar values for similar sites.

#### **4. STUDY APPROACH AND METHODOLOGY**

##### **4.1 Extent of the Study**

This survey and impact assessment covers the area as presented in Section 5 and as illustrated in Figures 1 - 2.

##### **4.2 Methodology**

###### *4.2.1 Preliminary investigation*

###### **4.2.1.1 Survey of the literature**

A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various anthropological, archaeological, historical sources and heritage impact assessment reports were consulted (Cloete 2000; Hall 1985; Mason 1969; Van Schalkwyk 2005; Walker & Bothma 2005).

- Information on events, sites and features in the larger region were obtained from these sources.

###### **4.2.1.2 Data bases**

The *Heritage Atlas Database*, the *Environmental Potential Atlas*, the *Chief Surveyor General (CS-G)* and the *National Archives of South Africa (NASA)* were consulted.

- Database surveys produced a number of sites located in the larger region of the proposed development.

###### **4.2.1.3 Other sources**

Aerial photographs and topocadastral and other maps were also studied - see the list of references below.

- Information of a very general nature was obtained from these sources.

###### *4.2.2 Field survey*

The area that had to be investigated was identified by **Earth Inc Environmental Consultants** by means of maps. The area where the lodge development is to take place was surveyed by walking a number of parallel transects across it.

#### 4.3 Limitations

- In some areas the vegetation was very high and dense, limiting the archaeological visibility.

### 5. DESCRIPTION OF THE AFFECTED ENVIRONMENT

#### 5.1 Site location and description

The study area is located some 35 km northwest of the town of Vaalwater in the Limpopo Province (Fig. 1). For more information, please see the Technical Summary presented above.

The geology of the region is made up of arenite and the original vegetation is classified as Waterberg Moist Mountain Bushveld, changing to Mixed Bushveld in the southern section. The topography of the region is classified as lowlands with hills. The Mokolo River passes some distance to the south of the study area. This created a landscape that could have drawn people to settle here in the past.

The development site is a small section of land located to the south of the existing lodge, built many years ago. A section where the development is to take place was in the past used as agricultural fields. It also includes the area of the current worker accommodation and technical support section for the game farm.



Fig. 1. Location of the study area in regional context. (Maps 2426: Chief Surveyor-General)

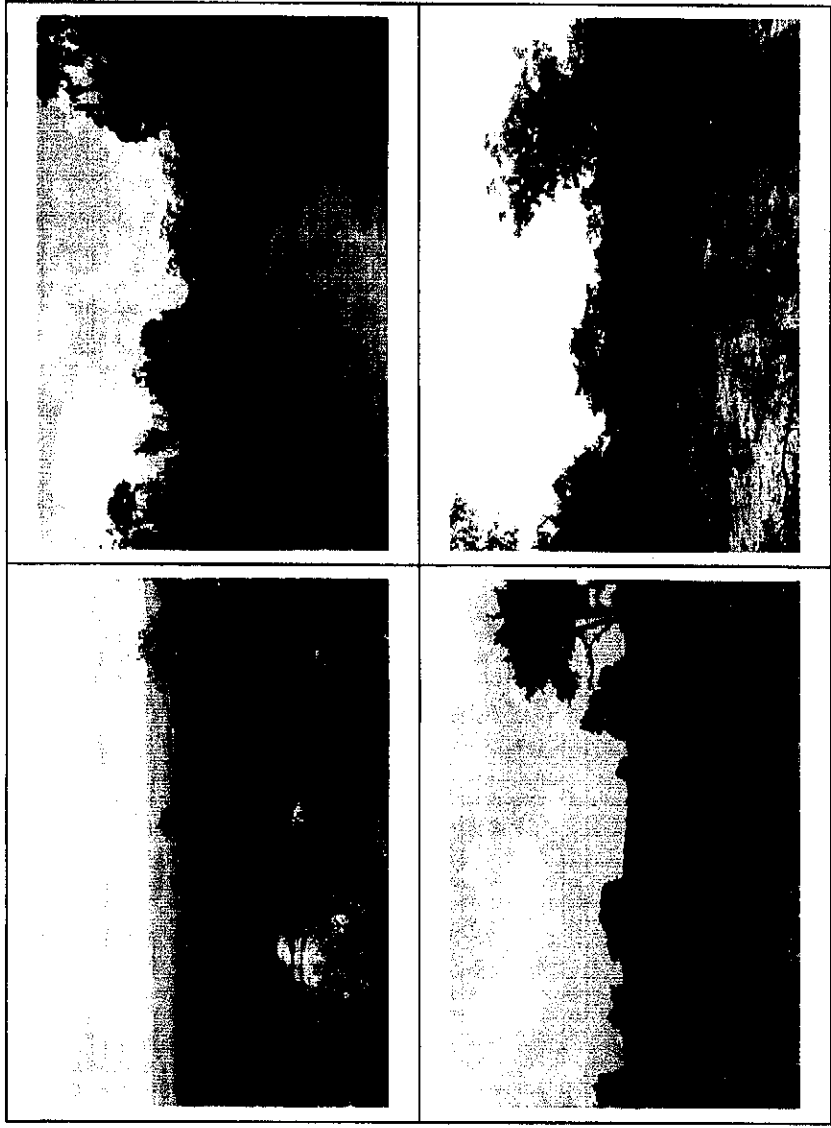


Fig. 2. Elements of the natural landscape.

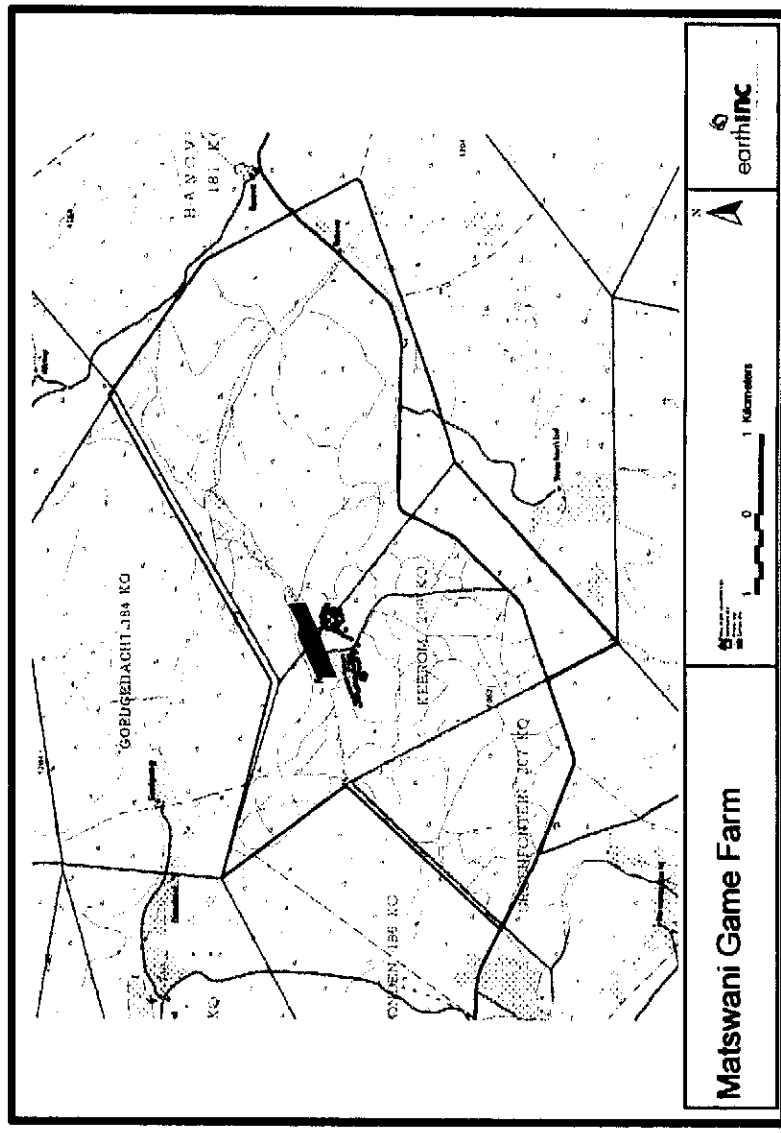


Fig. 3. The proposed development (black dots) in relationship to the existing lodge (green).

## 5.2 Overview of the region

The cultural landscape qualities of the region essentially consist of a single component, i.e. a rural area in which the human occupation is made up of a pre-colonial element (Stone Age and Iron Age) as well as a much later colonial (farmer) component.

The larger Waterberg region is rich in heritage sites. Stone Age people settled in the area since Early Stone Age times. However, it was mostly during the Late Stone Age that their presence became noticeable as they preferred to stay in rock shelters, where they also practiced their art.

Iron Age people started to enter the area by the 8<sup>th</sup> century in limited numbers. They preferred to settle close to rivers, using the rich alluvial soils to cultivate for their crops. These villages were usually very large, with the homestead spread out, covering in some cases areas of up to as much as 400 x 400 metres.

However, it was only by the middle of the 17<sup>th</sup> century that Late Iron Age people started to enter the area in large numbers. However, due to a number of reasons, this was a period of stress, and the people used to aggregate in compact stone walled villages located in easily defensible positions on hilltops.

By the middle of the 19<sup>th</sup> century, white settlers also arrived on the scene. Subsequently the area was surveyed and subdivided into farms. A number of small towns were soon laid out, followed by the necessary infrastructure development.

## 5.3 Identified sites

Based on the above sources and the field visit, the following heritage sites, features and objects were identified in the proposed development area:

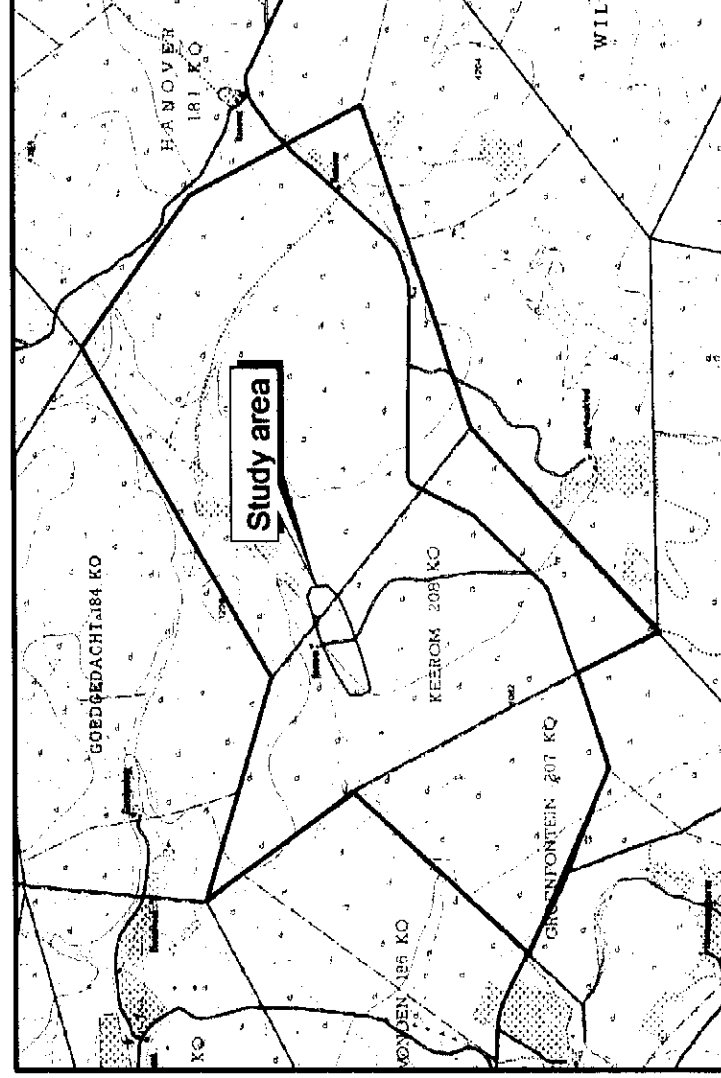


Fig. 4. Map showing the study area and known heritage sites.

- No sites, features or objects of significance dating to the Stone Age were identified in the study area.
- No sites, features or objects of significance dating to the Iron Age were identified in the study area.
- No sites, features or objects of significance dating to the historic period were identified in the study area.

## 6. SITE SIGNIFICANCE AND ASSESSMENT

### 6.1 Heritage assessment criteria and grading

The NHRA stipulates the assessment criteria and grading of archaeological sites. The following categories are distinguished in Section 7 of the Act:

- **Grade I:** Heritage resources with qualities so exceptional that they are of special national significance;
- **Grade II:** Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region; and
- **Grade III:** Other heritage resources worthy of conservation on a local authority level.

The occurrence of sites with a Grade I significance will demand that the development activities be drastically altered in order to retain these sites in their original state. For Grade II and Grade III sites, the applicability of mitigation measures would allow the development activities to continue.

### 6.2 Statement of significance

A matrix was developed whereby the above criteria, as set out in Sections 3(3) and 7 of the NHRA, No. 25 of 1999, were applied for each identified site (see Appendix 1). This allowed some form of control over the application of similar values for similar sites. Three categories of significance are recognized: low, medium and high. In terms of Section 7 of the NHRA, all the sites currently known or which are expected to occur in the study area are evaluated to have a grading as identified in the table below.

Table 2. Summary of identified heritage resources in the study area.

<b>Identified heritage resources</b>	
<i>Category, according to NHRA</i>	<i>Identification/Description</i>
<b>Formal protections (NHRA)</b>	
National heritage site (Section 27)	None
Provincial heritage site (Section 27)	None
Provisional protection (Section 29)	None
Place listed in heritage register (Section 30)	None
<b>General protections (NHRA)</b>	

structures older than 60 years (Section 34)	None
archaeological site or material (Section 35)	None
palaeontological site or material (Section 35)	None
graves or burial grounds (Section 36)	None
public monuments or memorials (Section 37)	None
<b>Other</b>	
Any other heritage resources (describe)	None

### 6.3 Impact assessment

Impact analysis of cultural heritage resources under threat of the proposed development, are based on the present understanding of the development.

Table 3. Summary of impact assessments.

<b>Heritage sites assessment</b>		
<i>Site type</i>	<i>Site significance</i>	<i>Site grading (Section 7 of NHRA)</i>
None	-	-
<b>Impact assessment</b>		
<i>Impact</i>	<i>Mitigation</i>	<i>Permits required</i>
None	-	-

- As no sites, features or objects of cultural heritage significance were identified in the study area, there would be no impact as a result of the proposed development.

## 7. CONCLUSIONS

The aim of this survey was to locate, identify, evaluate and document sites, objects and structures of cultural significance found within the area of the proposed development, to assess the significance thereof and to consider alternatives and plans for the mitigation of any adverse impacts.

The cultural landscape qualities of the region essentially consists of a single component, i.e. a rural area in which the human occupation is made up of a pre-colonial element (Stone Age and Iron Age) as well as a much later colonial (farmer) component.

- As no sites, features or objects of cultural heritage significance were identified in the study area, there would be no impact as a result of the proposed development.

Therefore, from a heritage point of view it is recommended that the proposed development be allowed to continue. However, it is requested that should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.



## 8. REFERENCES

### 8.1 Data bases

Chief Surveyor General  
Environmental Potential Atlas, Department of Environmental Affairs and Tourism.  
Heritage Atlas Database, Pretoria.  
National Archives of South Africa  
SAHRA Archaeology and Palaeontology Report Mapping Project (2009)

### 8.2 Literature

Acocks, J.P.H. 1975. *Veld Types of South Africa*. Memoirs of the Botanical Survey of South Africa, No. 40. Pretoria: Botanical Research Institute.

Cloete, P.G. 2000. *The Anglo-Boer War: a Chronology*. Pretoria: JP van der Walt.

Hall, S.L. 1985. Excavations at Rooikrans and Renosterkloof, Late Iron Age sites in the Rooiberg area of the Transvaal. *Annals of the Cape Provincial Museums (Human Sciences)* 1(5):131-210.

Mason, R.J. 1969. *Prehistory of the Transvaal*. Johannesburg: Witwatersrand University Press.

Van Schalkwyk, J.A. 2005. *Heritage impact assessment for the proposed Tholo Bush Estate development, Lephalele District, Limpopo Province*. Unpublished report 2005KKH078. Pretoria

Walker, C. & Bothma, J. du P. 2005. *The Soul of the Waterberg*. Houghton: African Sky Publishing.

### 8.3 Interviews

Mr M van Zyl, current manager of the game farm  
Mr H Ndlovu, maintenance worker on the farm

### 8.4 Maps and aerial photographs

1: 50 000 Topocadastral maps: 2427BB  
Google Earth

## APPENDIX 1: CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON HERITAGE RESOURCES

### Significance

According to the NHRA, Section 2(vi) the **significance** of heritage sites and artefacts is determined by it aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

Matrix used for assessing the significance of each identified site/feature

<b>1. Historic value</b>			
Is it important in the community, or pattern of history			
Does it have strong or special association with the life or work of a person, group or organisation of importance in history			
Does it have significance relating to the history of slavery			
<b>2. Aesthetic value</b>			
It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group			
<b>3. Scientific value</b>			
Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage			
Is it important in demonstrating a high degree of creative or technical achievement at a particular period			
<b>4. Social value</b>			
Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons			
<b>5. Rarity</b>			
Does it possess uncommon, rare or endangered aspects of natural or cultural heritage			
<b>6. Representivity</b>			
Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects			
Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class			
Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.			
<b>7. Sphere of Significance</b>	High	Medium	Low
International			
National			
Provincial			
Regional			
Local			
Specific community			
<b>8. Significance rating of feature</b>			
1. Low			
2. Medium			
3. High			

**Significance of impact:**

- low where the impact will not have an influence on or require to be significantly accommodated in the project design
- medium where the impact could have an influence which will require modification of the project design or alternative mitigation
- high where it would have a “no-go” implication on the project regardless of any mitigation

**Certainty of prediction:**

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

**Recommended management action:**

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = preserve site at all costs
- 5 = retain graves

**Legal requirements:**

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.

## **APPENDIX 2. RELEVANT LEGISLATION**

All archaeological and palaeontological sites, and meteorites are protected by the National Heritage Resources Act (Act no 25 of 1999) as stated in Section 35:

- (1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority. Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.
- (2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.
- (3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.
- (4) No person may, without a permit issued by the responsible heritage resources authority-
  - (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
  - (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
  - (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
  - (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

In terms of cemeteries and graves the following (Section 36):

- (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.
- (2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.
- (3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-
  - (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
  - (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
  - (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.
- (4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

APPENDIX 3: ILLUSTRATIONS

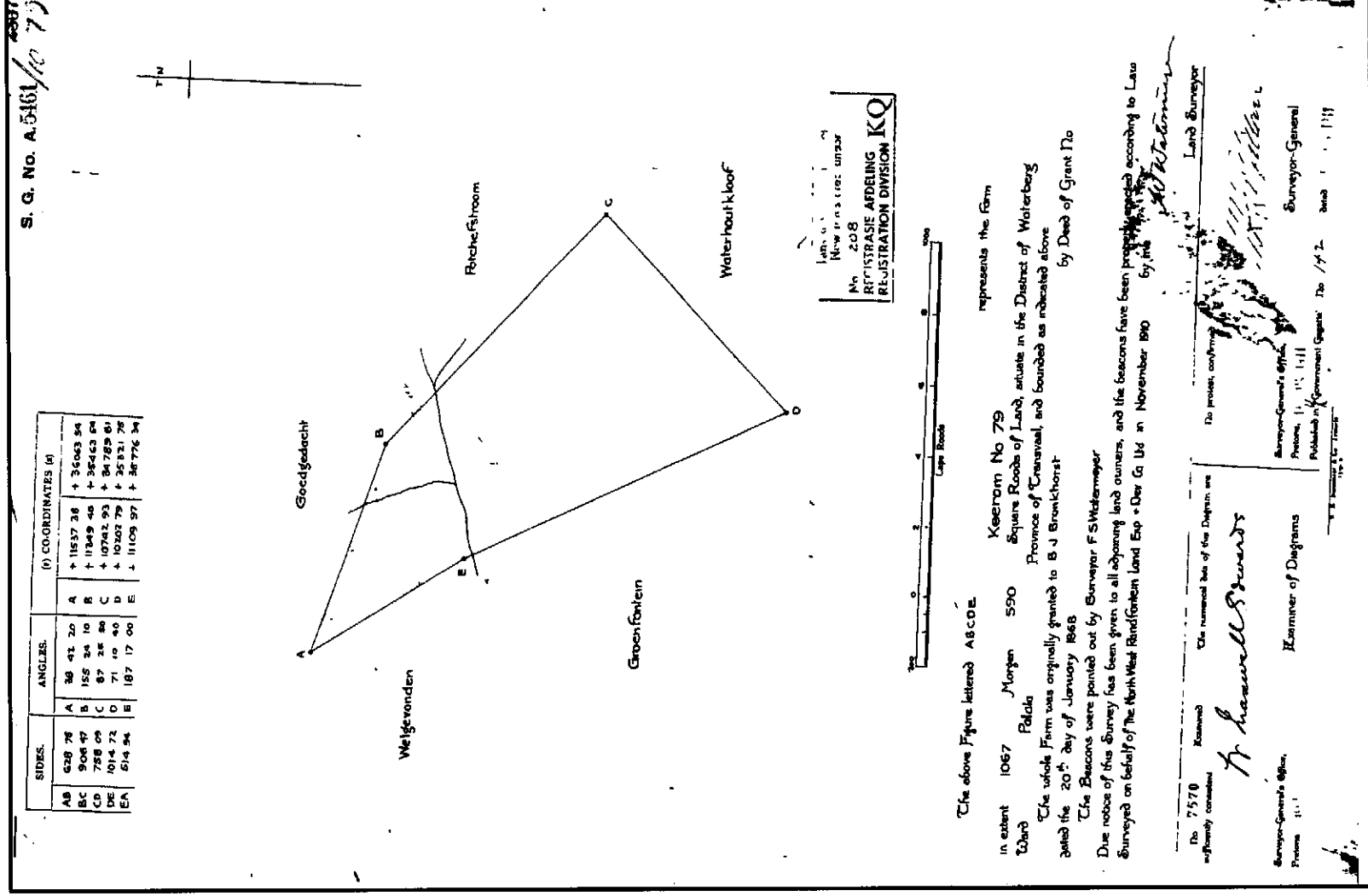


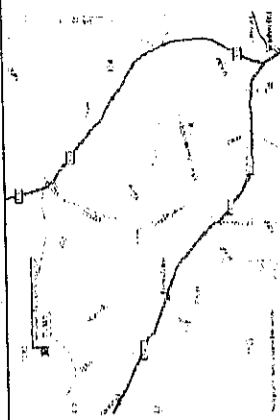
Fig. 5. Title Deed for the farm Keerom.



**SETTLEMENT PLAN  
MATSWANI  
GAME FARM**

FIGURE A, B, C, D, E, G, H, J, K, L, M REPRESENTS THE REMAINDER OF THE FARM HANOVER 181 KG, THE REMAINDER OF THE FARM GROENFONTEIN 207 KG, THE REMAINDER OF THE FARM KEEROM 208 KG AND MEASURES 2753,9487 HA

**LOCALITY PLAN**



**EXISTING LAND USES**

USE	COLOUR CODE	NO. OF UNITS	AREA (m <sup>2</sup> )
LODGE	[Pattern]	1	618,00
STAFF HOUSING	[Pattern]	5	1195,20
RECREATION AREA	[Pattern]	3	768,00
OFFICE	[Pattern]	1	180,00
SHOP	[Pattern]	1	240,00
STORE	[Pattern]	6	1065,80
WORKSHOP	[Pattern]	1	200,40
CHALET	[Pattern]	11	1088,00
OTHER RELATED USES	[Pattern]	7	918,80

**PROPOSED ZONING**

ZONING	COLOUR CODE	NO. OF PORTIONS NO.	AREA (ha)	% LAND USE
SPECIAL FOR RESORT	[Pattern]	2	11,2	0,1
RESIDENTIAL I	[Pattern]	69	10,4	0,1
SPECIAL FOR CLUB HOUSE	[Pattern]	6	0,9	0,01
PRIVATE OPEN SPACE	[Pattern]	2	2731,5	99,9
		79	2754,0	100

CONTOUR INTERVAL: 1,0M  
 CONTOUR SURVEY BY: ADP  
 DATUM: PLANE AVERAGE SEA-LEVEL AREAS AND MEASUREMENTS IN METERS  
 ALL AREAS AND MEASUREMENTS ARE APPROXIMATE AND SUBJECT TO FINAL SURVEY

**PROPOSED SUBDIVISIONS**

FIGURE A1 B1 C1 D1 E1 F1 G1 H1 I1 J1 K1 L1 M1 REPRESENTS 10 HA AND THE PORTION A  
 FIGURE A2 B2 C2 D2 E2 F2 G2 H2 I2 J2 K2 L2 M2 REPRESENTS 40 HA AND THE PROPOSED PORTION B

IT IS HEREBY CERTIFIED THAT IN TERMS OF SECTION 144 OF THE NATIONAL WATER ACT (ACT 36 OF 1998) FLOODLINES WITH EXPECTED FREQUENCIES OF 1:50 AND 1:100 YEAR ARE CORRECTLY INDICATED ON PLAN

SIGNED: [Signature] DATE: 28 JULY 2011  
 NAME: F. J. DE KANGE PER REG. NO. 810102

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