



# LIMPOPO

PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

## DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

### BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

Basic Assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

File Reference Number:

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NEAS Reference Number:

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

(For official use only)


1. The report must be compiled by an independent Environmental Assessment Practitioner.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable in the report.
4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.
5. An incomplete report may be returned to the applicant for revision.
6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

Cnr Suid & Dorp Streets, POLOKWANE, 0700, P O Box 55464, POLOKWANE, 0700  
Tel: 015 290 7138/ 7167, Fax: 015 295 5015, website: <http://www.ledet.gov.za>

***The heartland of southern Africa – development is about people!***

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

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

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

## SECTION A: ACTIVITY INFORMATION

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

YES

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

Any specialist reports must be contained in Appendix D.

### 1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail<sup>1</sup>:

The establishment of a housing project measuring approximately 18,2 hectares on Portion 7 of the Farm Van Wyksfontein 3 LR.

The project will consist of the following:

- 79 Residential 1 Erven
- 1 Residential 3 Erf
- 3 Public Open Space Erven
- 3 Business 1 Erven
- 1 Filling Station
- 1 Undetermined Erf
- Roads with a length of 2 016m

The filling station will have a total capacity of 300 000 liter and will consist of 150 000 liter diesel and 150 000 liter petrol.

Engineering services like sewage, water supply and electricity will be installed.

### 2. FEASIBLE AND REASONABLE ALTERNATIVES

“**alternatives**”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;

The proposed site is located on Portion 7 of the Farm Van Wyksfontein 3 LR at Tom Burke.

The proposed site is big enough to accommodate the proposed housing development. The topography of the area is relatively flat.

Access and electricity are available at the proposed site.

The proposed property belongs to the developer.

<sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

An archaeologist surveyed the proposed development area and no sites of heritage significance were identified in the direct vicinity of the study area. A small, fenced cemetery was identified. The cemetery measures approximately 10m x 20m in size and has 23 graves within it. The graveyard will be included into the proposed development and will not be destroyed.

The area is not environmentally sensitive, it is disturbed by previous development. The development must take place around the protected *Sclerocarya birrea* and *Boscia albitrunca* trees.

The proposed site is thus highly suitable for a development of this kind. Other alternative sites are therefore not feasible. Therefore application for exemption from having to assess alternative sites is herewith made.

(b) the type of activity to be undertaken;

This project entails the construction of a residential development. The size of the site will be approximately 18,2ha.

(c) the design or layout of the activity;

The project will consist of the following:

- 79 Residential 1 Erven
- 1 Residential 3 Erf
- 3 Public Open Space Erven
- 3 Business 1 Erven
- 1 Filling Station
- 1 Undetermined Erf
- Roads with a length of 2 016m

Engineering services like sewage, water supply and electricity will be installed.

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

No technology alternatives were identified.

(e) the operational aspects of the activity; and

Due to the extremely limited extent of the proposed activity, the impact upon the environment will be minimal. The surface area that will be covered on the ground is approximately 18,2ha.

(f) the option of not implementing the activity.

Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow.

**The Reader is referred to Appendix G (Assessment of Alternatives) for a description of the identified alternatives that have been investigated.**

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the Department may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

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

### 3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

**Latitude (S):**

**Longitude (E):**

**Alternative:**

Alternative S1<sup>2</sup> (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

23°	04'	04,5"	27°	59'	54,0"
°	'	"	°	'	"
°	'	"	°	'	"

**In the case of linear activities:**

**Alternative:**

Alternative S1 (preferred or only route alternative)

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

**Latitude (S):**

**Longitude (E):**

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

Alternative S2 (if any)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

<sup>2</sup> "Alternative S.." refer to site alternatives.

Alternative S3 (if any)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

#### 4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

**Alternative:**

Alternative A1<sup>3</sup> (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

or,

for linear activities:

**Size of the activity:**

182 000m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

**Length of the activity:**

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

m
m
m

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

**Size of the site/servitude:**

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

182 000m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

<sup>3</sup> "Alternative A.." refer to activity, process, technology or other alternatives.  
LEDET BA Report, EIA 2014: Project Name: Housing Development – Tom Burke

## 5. SITE ACCESS

Does ready access to the site exist?

YES	
	m

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

Describe the type of access road planned:

N/A

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

## 6. SITE OR ROUTE PLAN

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

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - rivers;
  - the 1:100 year flood line (where available or where it is required by Department of Water Affairs);
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

**7. SITE PHOTOGRAPHS**

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

**8. FACILITY ILLUSTRATION**

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

**9. ACTIVITY MOTIVATION**

**9(a) Socio-economic value of the activity**

What is the expected capital value of the activity on completion?	R20 000 000-00
What is the expected yearly income that will be generated by or as a result of the activity?	R12 000 000-00
Will the activity contribute to service infrastructure?	<b>YES</b>
Is the activity a public amenity?	<b>YES</b>
How many new employment opportunities will be created in the development phase of the activity?	30
What is the expected value of the employment opportunities during the development phase?	R60 000-00
What percentage of this will accrue to previously disadvantaged individuals?	60%
How many permanent new employment opportunities will be created during the operational phase of the activity?	30
What is the expected current value of the employment opportunities during the first 10 years?	R2 000 000-00
What percentage of this will accrue to previously disadvantaged individuals?	60%

**9(b) Need and desirability of the activity**

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

<b>NEED:</b>		
i.	Was the relevant municipality involved in the application?	<b>YES</b>
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	<b>YES</b>
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:	



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<b>DESIRABILITY:</b>		
i.	<p>Does the proposed land use / development fit the surrounding area?</p> <p><i>Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow. In 2006 it had a population of 808 people.</i></p> <p><i>There are a number of activities going on, and developments planned close to and in Tom Burke. Tom Burke is the last settlement before the Groblersbrug border post and is situated only ± 7 km south thereof. Groblersbrug border post is one of the major border posts between South Africa and Botswana. Most goods and services for the north eastern part of Botswana leaves and enters South Africa through this border post. This border post also serves the western parts of Zimbabwe and Zambia. This border post is very busy and is able to handle heavy vehicles.</i></p> <p><i>There is also a strong farming community present in the Tom Burke area and cattle farming, game farming and especially irrigation farming is very prominent in this part of the municipal area.</i></p> <p><i>Activities in and around Tom Burke includes a traffic control centre with a weigh bridge situated on Portion 6 of the farm Welvaart 27 LQ. This facility is situated ± 500 meters west of the proposed housing development. At the border post is a truck inn, general dealer, overnight accommodation and fuel pumps. On Portion 6 of the farm Doornplaats is a caravan park. On Portion 3 of the farm Van Wyksfontein which is directly adjacent to the proposed housing development is the police station. On Portion 9 which is ± 200 meter south west of the proposed housing development is a guesthouse. On Portion 10 which is ± 100 meter south of the proposed housing development is the NTK cooperative. As mentioned on the application property is the Tom Burke post office and old filling station.</i></p> <p><i>This settlement plays an important role in serving the border post, the residents within Tom Burke, the farming community, and people from the northern cluster of the villages and Marnitz. Lacking in Tom Burke is proper residential and business facilities.</i></p>	YES
ii.	<p>Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?</p> <p><i>Tom Burke serfs approximately 15 000 people. This figure is based on the 2012 population statistics as is presented in the Lephalale Spatial Development Framework (SDF) and is now higher.</i></p> <p><i>In terms of the SDF Tom Burke is earmarked as a Local Service Point (LSP). LSP's is concentration points which provide centres where basic goods and services are located.</i></p> <p><i>The SDF indicates that approximately 6% of the Lephalale population resides in LSP's. It also indicates that the average population growth rate for the Lephalale municipal area is between 1.4% and 1.8%. Natural growth will therefore result in an increase in the population of Tom Burke.</i></p> <p><i>The Lephalale Integrated Development Plan (IDP) indicates that Lephalale has a unemployment figure of 22, 9% which is below the provincial average although in the rural areas it is more than 40%.</i></p>	YES

	<p>The closest health care facility is situated in Ga Seleka which is as indicated ±15 kilometres south west of Tom Burke.</p> <p>The two predominant sectors of the economy is mining and retail trade with respective percentages of 27, 3% and 19, 5% of the total employment. This is followed by agriculture with 14%.</p> <p>The local economy is driven by a strong mining sector which contributes an enormous 71% to the total gross value added production per sector in the local economy.</p>		
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
v.	Will the proposed land use / development impact on the sense of place?		NO
vi.	Will the proposed land use / development set a precedent?		NO
vii.	Will any person's rights be affected by the proposed land use / development?		NO
viii.	Will the proposed land use / development compromise the "urban edge"?		NO
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

<b>BENEFITS:</b>			
i.	Will the land use / development have any benefits for society in general?	YES	
ii.	<p>Explain:</p> <p>Located in the Limpopo Province at Tom Burke (± 600 meters west of the application property) is the Tom Burke solar PV plant which on completion will have a capacity of 66MW and will have the ability to add 122 GWh a year to the grid once fully operational.</p> <p>This will meet the energy needs of 38,000 homes and save 111,000 tons of CO2 from being emitted each year.</p> <p>Enel Green Power has already started with the construction of this plant. This plant will create a number of temporary and permanent jobs. Obviously this development will create a need for temporary and permanent accommodation, business and other community facilities.</p> <p>Another major project namely the Moonlight Iron Ore Project is planned, ±15 kilometers south of Tom Burke along the N11.</p> <p>In 2012 a 30 year mining right was granted by the Department of Minerals over the farms Moonlight, Julietta and Gouda Fontein. These farms covers an area of 53 km<sup>2</sup>.</p> <p>What makes this mine highly attractive is the vast high quality iron reserves on the mentioned farms and the fact that existing iron mines in South Africa is in decline. It is a well-known fact that the iron reserves in Thabazimbi is depleted and that the Thabazimbi iron mine is in the process of closing down.</p> <p>The Moonlight Iron mine will produce high quality direct reduction and blast furnace grade iron pellets. There is an increasing global demand for this product. South Africa's steel industry is a major employer</p>		

	<p>needing new cost effective iron ore supply.</p> <p>The Ga-Seleka community holds 3% equity in this mining project. The development of this mine holds a number of benefits for this community namely sustainable employment, training, industry development and expansion, taxes, royalties and other general social benefits.</p> <p>An environmental impact assessment (EIA) for the mine and concentrator related areas was completed and submitted to the Department of Economic Development Environment and Tourism. The EIA was approved in April 2013.</p> <p>Recent additional funds allows the company now to proceed with drilling, pilot process test work, mining designs and plans, process design and engineering, infrastructure commitments and overall project capital and operating cost estimates which will take ±18 months to conclude. Thereafter they can commence with the construction of the mine which is estimated to take 30 to 36 month. Thereafter the mine will be fully operational.</p> <p>Once fully operational the mine will employ ± 3600 people. At an average of 4 people per household, the accommodation need will be for 900 dwelling units and related facilities like businesses etcetera.</p> <p>The proposed housing development is close to the mine and will be ideally situated to provide in this need.</p> <p>Mr. Ryan Els planted crops on the proposed development site from 2004 till 2010. He planted tomatoes, onions, gems, potatoes, green peppers, patty's and marrows. They battled to be successful as the soil is sterile and they battled with diseases like curly stunt virus. The soil has a high concentration of lime and is very shallow, which makes farming very difficult, see letter in Appendix G.</p>
iii.	<p>Will the land use / development have any benefits for the local communities where it will be located?</p> <p style="text-align: right;"><b>YES</b></p>
iv.	<p>Explain:</p> <p>Clearly, once the PV plant and mine commences operating further jobs will be created directly in the area and indirectly through other industries which spring up around and support large industries such as these ones. Various support services such as medical, legal, auditing, retail, commercial, community, and governmental can be envisaged where the people who are drawn to these large industrial applications for work purposes need specific support services.</p> <p>Obviously the projects mentioned above will increase not only the demand for residential facilities but also for all other type of facilities including the facilities which the proposed housing development will offer.</p>

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

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

Title of legislation, policy or guideline:	Administering authority:	Date:
Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998)	Department of Environmental Affairs	2014
Constitution of South Africa Act No. 108 of 1996	National & Provincial	18 December 1996
National Environmental Management: Biodiversity Act No.	National & Provincial	7 June 2004

10 of 2004		
Section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999)	SAHRA	1999

## 11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### 11(a) Solid waste management

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

YES

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

±50m<sup>3</sup>

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

**Trucks / pickups will collect all the building rubble and it will be disposed of at the municipal waste disposal site. The rubble will be covered with a tarpaulin to prevent that any waste will be blown off from the vehicle. Light rubble which can be blown off vehicles will be placed in containers when it is transport.**

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

**Because of the remoteness of application property the Lephalale Municipality currently provides no refuse removal services although from discussions with the relevant officials at the municipality, the municipality is planning to institute such a service to the area. The closest refuse dumping site is the Groothoek dumping site in Lephalale town.**

**There are a number of private service providers specializing in the removal of solid waste. The applicant will contract such a company to remove the solid waste on a regular basis up to such a stage when the municipality is able to collect and remove the solid waste generated on site.**

**A letter was obtained from the Lephalale Municipality that the solid waste may be disposed at the Groothoek dumping site in Lephalale town, see Appendix G.**

Will the activity produce solid waste during its operational phase?

YES

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

±50m<sup>3</sup>

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

**The solid waste will mainly consist of households and it will be collected in waste bins. The proposed development will not produce hazardous waste.**

**The temporary storage facility will be free from odour or emissions to prevent any annoyance to the surrounding area. The waste bins will be provided with lids and it will not be overfilled. The developer will make sure that the waste bins are always in a good condition.**

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

**Because of the remoteness of application property the Lephalale Municipality currently provides no refuse removal services although from discussions with the relevant officials at the municipality, the municipality is planning to institute such a service to the area. The closest refuse dumping site is the Groothoek dumping site in Lephalale town.**

**There are a number of private service providers specializing in the removal of solid waste. The applicant will contract such a company to remove the solid waste on a regular basis up to such a stage when the municipality is able to collect and remove the solid waste generated on site.**

**A letter was obtained from the Lephalale Municipality that the solid waste may be disposed at the Groothoek dumping site in Lephalale town, see Appendix G.**

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the department to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?  YES  NO  
 If yes, inform the department and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?  YES  NO  
 If yes, then the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

**11(b) Liquid effluent**

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?  YES  NO

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

Will the activity produce any effluent that will be treated and/or disposed of on site?  YES  NO

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

Will the activity produce effluent that will be treated and/or disposed of at another facility?  YES  NO

If yes, provide the particulars of the facility:

Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:	Cell:	
E-mail:	Fax:	

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

**The proposed development area has no municipal sewer point. It is proposed herewith that onsite sewage treatment be provided. Treated effluent will be discharged in to a retention dam which will be utilized for irrigation purposes in the development.**

**The internal sewer network will drain to the low point in the proposed development area where the proposed sewer pump station will be erected. The raw sewer will be pumped from the pump station to the onsite sewage treatment plant which will be erected next to an existing dam, see Sketch Plan in Appendix G.**

**The internal sewers in the proposed development will comply with the standards of the Local Municipal Authority with regard to domestic sewage outflow, but will not be handed over to the Local Municipal Authority on completion of the installations.**

The internal sewer network, including the onsite sewage treatment plant, will be the responsibility of the Section 21 Company to be established to maintain and operate the internal sewers.  
 The proposed development will produce approximately 88 200 litre sewer per day.  
 The Department of Water Affairs supports a close treatment system like a Lilliput System, see Appendix G.

**11(c) Emissions into the atmosphere**

Will the activity release emissions into the atmosphere?

	NO
--	----

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

--	--

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

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

--

**11(d) Generation of noise**

Will the activity generate noise?

	NO
--	----

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

--	--

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

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

--

**12. WATER USE**

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

	Groundwater			
--	-------------	--	--	--

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

3 487 500 Litres
YES

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

YES
-----

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

**No significant impacts on groundwater resources and water users are expected if the underground fuel storage tank installations are constructed to specification. See Geotechnical and Geohydrological Report in Appendix D.**

**13. ENERGY EFFICIENCY**

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

**Electricity will be provided by Eskom who is the supply authority.**

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

**Electricity will be provided by Eskom who is the supply authority.**



## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

### Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.   
(e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.

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

**YES**

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

All specialist reports must be contained in Appendix D.

Property description/physical address:

**The proposed site is located on Portion 7 of the Farm Van Wyksfontein 3 LR at Tom Burke, Lephalale Municipal area.**

**The size of the site will be approximately 18,2ha.**

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

Town/district:

**Tom Burke**

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

**Agriculture**

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

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

**YES**

Must a building plan be submitted to the local authority?

**YES**

Locality map: An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:

- an indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

## 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat						
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Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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## 2. LOCATION IN LANDSCAPE

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

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

### 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	NO	YES NO	YES NO
Dolomite, sinkhole or doline areas	NO	YES NO	YES NO
Seasonally wet soils (often close to water bodies)	NO	YES NO	YES NO
Unstable rocky slopes or steep slopes with loose soil	NO	YES NO	YES NO
Dispersive soils (soils that dissolve in water)	NO	YES NO	YES NO
Soils with high clay content (clay fraction more than 40%)	NO	YES NO	YES NO
Any other unstable soil or geological feature	NO	YES NO	YES NO
An area sensitive to erosion	NO	YES NO	YES NO

A level 3 geotechnical investigation was conducted for the proposed development. See Geotechnical and Geohydrological Report in Appendix D.

Conclusions:

- The site is underlain by transported soil and meta-sediment of the Limpopo Mobile Belt on the valley floor above the flood limit of the Limpopo River.
- Two soil profiles have been identified on site:
  - Profile 1, Transported and meta sediments
  - Profile 2, Hardpan Calcrete
- Profile 1: The natural soil profile on site consist of a upper, dry, uniform reddish brown, loose to medium dense, intact, fine grained sand with silt, (TRANSPORTED / REWORKED) layer with roots, overlying a dry, uniform reddish brown, dense, intact, sand with silt (TRANSPORTED SOIL), interlayered with a dry, uniform reddish brown, dense intact, gravel in a matrix of fine grained sand and silt (COLLUVIUM). Underlying the transported soils is dry, pinkish brown spotted white, very dense, highly weathered gravel with a sandy matrix grading into a weathered medium strong to strong meta sediment with a calcrete capping in places. Excavatability below 1.2m is hard.
- Profile 2: The area is identifiable as the whitish to light grey areas on the aerial photo's. The profile consist of a dry grey-brown, speckled light grey, loose to medium dense gravelly sand with silt (WEATHERED CALCRETE) and topsoil with roots, overlying dry grey-brown, speckled light grey, medium dense sandy gravel with silt (WEATHERED CALCRETE), grading into HARDPAN CALCRETE, as encountered in Trial pit TBD 1. The TLB reached refusal in the hardpan calcrete at 0.5m below surface. Excavatability below 0.5m will be hard.
- The potential for collapse of side walls of deep excavations is moderate.
- No shallow groundwater conditions were encountered expected.

- Construction materials should be sourced off site.
- No Mining activities past or present will influence the planned structures.
- The geotechnical risk classification for the site is:
  - Profile 1 Class F2 due to hard excavatability below 1.2m.
  - Profile 2 Class F3 due to hard excavatability below 0.5m
- The NHRRC site Class designation for the three profiles are:
  - Profile 1 S
  - Profile 2 R
- Based on the geotechnical evaluation two land use areas have been defined:
- Land Use Area A covers the transported soils and weathered meta sedimentary bedrock areas as encountered in all the trial pits except trial pit TBD 1 (Profile 1) area and is classified as **DEVELOPABLE with minor precautions** due to the minor risk of collapse settlement of foundations and hard excavatability below 1.2m. The NHRRC Site class designation for this area is S and normal foundations with compaction of trenches below footing level is recommended.
- Land Use Area B covers the soil profile 2 area and is classified as **DEVELOPABLE with precautions**. The profile consists of a thin layer of topsoil and weathered calcrete underlain by hardpan calcrete. Excavatability will be hard below 0.5m. The NHRRC Site class designation for this area is R. Normal foundations are recommended. Surface calcrete is usually associated with local depressions where water tends to pond in high rainfall events. The natural drainage in the area is disrupted by the road south of the property and thus flooding risk is minimal
- **From a geotechnical perspective Land Use Area A and B is suitable for development. Land Use Area A is better suited for the installation of underground fuel storage tanks**

#### 4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

		Cultivated land		

An Ecological Study was done by a qualified ecologist. See Ecological Report in Appendix D.

Conclusion:

The conservation value and site sensitivity of the demarcated area is low. The demarcated area falls within a fragmented degraded area and is adjacent to an existing village.

The proposed development is supported under the condition that mitigation measures are adhering to.

The following is recommended:

- Protected trees should be left intact.
- Trees such as *Acacia galpinii*, *Schotia brachypetala*, *Adansonia digitata*, *Sclerocarya birrea* and *Acacia nigrescens* should be planted to mitigate the development and limit the limited visual impact.

## 5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area	√	5.22 School	
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential		5.24 Church	
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial <sup>AN</sup>		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
<b>5.7 Military or police base/station/compound</b>	√	5.28 Protected Area	
5.8 Spoil heap or slimes dam <sup>A</sup>		5.29 Sewage treatment plant <sup>A</sup>	
5.9 Light industrial		5.30 Train station or shunting yard <sup>N</sup>	
5.10 Heavy industrial <sup>AN</sup>		5.31 Railway line <sup>N</sup>	
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities		5.33 Airport <sup>N</sup>	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station <sup>H</sup>		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	
5.17 Plantation		5.38 Nature conservation area	
<b>5.18 Agriculture</b>	√	5.39 Mountain, koppie or ridge	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
5.21 Dam or Reservoir		5.42 Other land uses (describe)	

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

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

If YES, specify and explain:	
If NO, specify:	

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

If YES, specify and explain:	
If NO, specify:	

## 6. CULTURAL/HISTORICAL FEATURES

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

YES

If YES, explain:

An Archaeologist was appointed to do the necessary Heritage Impact Assessment. See Appendix D.

A small, fenced cemetery was identified. The cemetery measures approximately 10m x 20m in size and has 23 graves within it. The graves were all orientated from west to east and they were placed in two unequal lines next to each other. Nine of the graves have formal granite dressings and headstones and the rest of the graves have brick and cement frames as dressings, with cement or sandstone headstones. The graves varied in age from between the 1920's up to the 1970's. The cemetery was not maintained recently and some of the graves are damaged.

This site is a small, fenced cemetery with 23 graves. It also includes the grave of Tom Burke after which the town was named. The developer has indicated that the development will be around the cemetery and that it would not be affected by the development. The following general recommendations are advisable for identified graves and cemeteries:

It is recommended that the area where the graves are located be avoided during development.

If the developer decides to plan the development around the identified graves and leave them undisturbed, adequate arrangements should be made to protect the graves from the impact of the development. These should include the following:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly demarcated with barrier tape during the entire duration of the project and especially during earth-moving/bush clearing activities. A 10m buffer zone must be allowed around the graves.

- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
  - It is advisable to fence the graves to prevent future damage. A buffer zone of at least 10m around the graves is recommended.
  - The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
  - Bush clearing crews should be made aware of the presence of the graves in order to avoid damaging it during the earth-moving activities.
  - The planning team should ensure that access to the graves by the next of kin is not limited in any way. A management plan should be set up to ensure the future safety, access and maintenance of the graves alongside the proposed development.
- An old farmhouse was identified. The farmhouse is square and measures approximately 20m x 20m in size. The house has a pitched corrugated roof and metal window and door frames. An extended veranda is situated on the western side of the house. The house has external water and electrical systems and this could indicate that the house is most probably older than 60 years old.
- The farmhouse is currently being occupied. From the architectural style and the building methods employed during the construction of the house it is believed that the house is most probably older than 60 years. Structures more than 60 years old are protected under Section 34 of the National Heritage Resources Act 25 of 1999, which states that “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority...”.
- It is recommended to apply for a permit for destruction from the Limpopo Heritage Resources Agency (LIHRA). LIHRA will stipulate the requirements for further mitigation work, before the permit of destruction will be issued. Only after the permit for destruction has been obtained can the destruction of the structure continue.

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

Will any building or structure older than 60 years be affected in any way?	<b>YES</b>	
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	<b>YES</b>	

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

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

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
  - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  - (v) the municipality which has jurisdiction in the area;
  - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  - (vii) any other party as required by the department;
- (c) placing an advertisement in—
  - (i) one local newspaper; or
  - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—
  - (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.



## **2. CONTENT OF ADVERTISEMENTS AND NOTICES**

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
  - (i) that the application has been submitted to the department in terms of these Regulations, as the case may be;
  - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
  - (iii) the nature and location of the activity to which the application relates;
  - (iv) where further information on the application or activity can be obtained; and
  - (v) the manner in which and the person to whom representations in respect of the application may be made.

## **3. PLACEMENT OF ADVERTISEMENTS AND NOTICES**

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

## **4. DETERMINATION OF APPROPRIATE MEASURES**

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

## **5. COMMENTS AND RESPONSE REPORT**

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in

these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

## 6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

Name of Authority informed:	Comments received (Yes or No)
Department of Public Works Private Bag X9469 POLOKWANE 0700 Ms. Pinkie Harricks	No
The Chief Director Department of Water Affairs WQM Section Private Bag X9506 POLOKWANE 0700 Ms. Magdeline M. Msimanga	No
The Manager Roads Agency Limpopo Private Bag X9554 POLOKWANE 0700 Ms. S.P. Tshivhase	No
Department of Sports, Arts and Culture Postnet Suite 21 Private Bag X9307 POLOKWANE 0700 Mr. Donald Lithole	No

Lephalale Local Municipality The Municipal Manager Private Bag X136 LEPHALALE 0555	No
Ward Councillor – Tom Burke Area Private Bag X136 LEPHALALE 0555	No
Waterberg District Municipality Private Bag X1018 MODIMOLLE 0510	No
SAPS – Tom Burke Private Bag X510 TOM BURKE 0621 Captain Mabote	No
The Director Department of Agriculture Land Use & Soil Management P.O. Box 3620 POLOKWANE 0700 Mr. Foletji Mahlakoane	No

## 7. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

Has any comment been received from stakeholders?

**NO**

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

--

## SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

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

List the main issues raised by interested and affected parties.

Hotane, Snyman & Taljaard Incorporated and VKB Agriculture (Pty) Ltd have registered as Interested and Affected Parties.

Mr. Gerhard Vos has originally registered as Interested and Affected Party but he has withdrawn his objection, see Appendix E.

See Comments & Response Report in Appendix E.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

### 2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

#### Alternative (preferred alternative)

##### PLANNING AND DESIGN PHASE

###### **Direct impacts:**

- The destruction of natural vegetation during initial investigations, due to induced vehicular movement e.g. surveyors vehicles etc.

*Existing tracks/roads should be used when accessing the site for planning purposes. Sampling rather than removal of existing plant material should take place (and then only if essential).*

- Damage to flora due to site clearing

*Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Vehicular access should be restricted to essential areas only. Grass occurring on and near construction sites*

*should be retained where possible, to assist in retarding erosion. During excavations, the area that is disturbed should be kept as small as possible, so as to minimise disturbances to the environment.*

**Indirect impacts:**

- Soil erosion due to vegetation clearance

*As much natural vegetation should be retained as is possible (especially natural occurring trees).*

- Unsocial activities at construction site (e.g. crime)

*Appointed contractors should be required to implement security measures at construction camps/material laydown areas. Security gate control measures should be implemented in order that only labourers and authorised persons obtain access to the construction camps/material laydown areas.*

- Construction traffic and access

*Existing tracks/roads should be used when accessing the site.*

- Impact of construction noise on adjacent residential areas

*Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to between 06h00 and 17h00 (Mondays to Saturdays only). Adjacent residents shall be informed of unusually noisy activities that will be undertaken. Works instructions shall be issued regarding the minimisation of noise to all workers (especially those using noisy equipment).*

- Hunting and capture of birds and other fauna by construction workers

*Capture or snaring of birds or other fauna must be strictly prohibited on site - especially with regards to contractors employees.*

- Proliferation of alien plant species during and after construction

*Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.*

- Impact of nuisances resulting from construction (e.g. dust, smoke & noise)

*Damping down of unsurfaced roads should take place. Trucks should avoid travelling unnecessarily through residential areas or private land.*

- High positive expectations regarding employment opportunities

*Local employment and procurement should receive priority when embarking upon planning and construction*

activities.

**Cumulative impacts:**

- Visual impact of construction activities

*Retain as many existing trees as possible to screen construction works. Change of land use from natural (disturbed) veld to a construction site will occur. This must however be seen in the context of the fairly short duration of the construction phase. Construction activities should be kept clustered on site at all times.*

- Temporary employment creation

*Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.*

**CONSTRUCTION PHASE**

**Direct impacts:**

- Construction traffic and access

*Damping down of unsurfaced roads should take place. Trucks should avoid travelling unnecessarily through private land.*

- Construction impacts on soils (upsetting of soil horizons through groundworks and/or compaction by vehicles)

*Selective stripping of topsoil, subsoil and overburden should take place. Stockpiling of removed earth (separately) should take place and be returned for backfilling in the correct soil horizon order. In all construction areas (e.g. material laydown areas), topsoil and subsoils should be protected from contamination/pollution (e.g. by fuel etc.). Stockpiling of removed earth should not occur in drainage lines or impede surface water runoff.*

- Pollution of groundwater

*Controlled use and or storage of all fuels and chemicals during construction is advised. Due to very limited amounts of the aforementioned substances being used during construction, leaching thereof into the underground water is highly unlikely. Adequate fuel containment facilities should however be used. Adequate sanitary facilities and ablutions must be provided for construction workers.*

- Soil erosion due to vegetation clearance

*When soil is cleared of vegetation, management techniques to prevent water erosion should be employed (e.g. reduction of water velocity and the diversion of surface water runoff downslope).*

- Damage to flora due to site clearing

*Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Vehicular access should be restricted to essential areas only. Grass occurring on and near construction sites should be retained where possible, to assist in retarding erosion. During excavations, the area that is disturbed should be kept as small as possible, so as to minimise disturbances to the environment.*

**Indirect impacts:**

- Potential injury to construction workers

*Implementation of safety measures and work procedures and first aid facilities should be required of contractors.*

- Unsocial activities at construction site (e.g. crime)

*Appointed contractors should be required to implement security measures at construction camps/material laydown areas. Security gate control measures should be implemented in order that only labourers and authorised persons obtain access to the construction camps/material laydown areas.*

- Impact of construction noise on adjacent residential areas

*Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to between 06h00 and 17h00 (Mondays to Saturdays only).*

- Plant collection, utilising of trees for firewood, etc. by construction workers

*Effective site control and monitoring by site engineer should take place. No fires should be allowed on site except in designated areas. Access to the site should be controlled - local disadvantaged residents should be allowed to collect firewood (only where bush is to be cleared).*

- Hunting and capture of birds and other fauna by construction workers

*Capture or snaring of birds or other fauna must be strictly prohibited on site - especially with regards to contractors employees.*

- Visual impact of construction activities

*Retain as many existing trees as possible to screen construction works. Construction activities should be kept clustered on site at all times.*

- Impact of nuisances resulting from construction (e.g. dust, smoke & noise)

*Damping down of graded roads and cleared areas should take place during construction. As much natural vegetation should be retained as is possible (especially natural occurring trees). As a mitigatory measure, construction should be limited to normal working hours. Construction shall be restricted to limited working hours (06h00 to 17h00 from Monday to Saturdays only). No work shall be conducted on Sundays. Adjacent residents shall be informed of unusually noisy activities that will be undertaken. Works instructions shall be issued regarding the minimisation of noise to all workers (especially those using noisy equipment).*

- Uncovering of heritage or archaeological sites/resources/graves

*In the case of an archaeological/heritage resources “find”, all excavation work should be halted and a heritage resources practitioner should be consulted (or alternatively the nearest SAHRA office). If found, graves shall be relocated in accordance with the stipulations of the South African Heritage Resources Act and its relevant regulations pertaining to graves.*

**Cumulative impacts:**

- Replacement of fauna due to site clearing

*Translocation of wild animals noted during construction shall be undertaken by a suitably qualified contractor. This shall only be done after the required permits for translocation have been obtained from LEDET.*

- Proliferation of alien plant species during and after construction

*Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.*

- High positive expectations regarding employment opportunities

*Local employment and procurement should receive priority when embarking upon planning and construction activities. Contractors should be required to make use of local labour and suppliers where possible.*

- Temporary employment creation

*Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.*

**OPERATIONAL PHASE**

**Direct impacts:**

- Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape.

*Change of land use from relatively natural veld to a suburban environment will occur. This must however be seen in the context of the existing developments located in the area. The potential of the proposed development to impact negatively on the character of the area is anticipated to be minimal, due to the already developed nature of the surrounding areas.*

- Generation of waste by the proposed development

*The proposed development is located in Tom Burke. The proposed development area has no municipal sewer point. It is proposed herewith that onsite sewage treatment be provided.*

- Leakage from underground fuel tanks resulting in pollution of land (soil) and underground water

*All containment structures for polluted water should be lined to prevent seepage and pollution of*



groundwater.

*Daily reconciliation of the volumes of petroleum products should be done to ensure early detection of a possible leak.*

*Leakage detectors and odour detectors should be installed. Checking for product losses should take place regularly. Any losses should be reported to the relevant oil company and relevant authorities within 14 days and the necessary remedial action taken.*

**Indirect impacts:**

- Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape

*The development of a residential project will serve to lessen the overall negative impact on the environment should the buildings be designed so that it blends in with the prevailing architectural character of the area.*

**Cumulative impacts:**

- Development of the proposed residential project will impact positively on the local economy and land values  
*Change of land use from (relatively) natural veldt to a suburban environment will occur. The proposed development will create additional jobs for the local people.*

**DECOMMISSIONING**

**Direct impacts:**

- Should the proposed site be decommissioned then a new site has to be identified for the development of the residential project.

*Should the proposed site be decommissioned then a new site has to be identified for the development of the residential project. This will put more pressure to provide housing in the community.*

*Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow. In 2006 it had a population of 808 people.*

*There are a number of activities going on, and developments planned close to and in Tom Burke. Tom Burke is the last settlement before the Groblersbrug border post and is situated only  $\pm 7$  km south thereof. Groblersbrug border post is one of the major border posts between South Africa and Botswana. Most goods and services for the north eastern part of Botswana leaves and enters South Africa through this border post. This border post also serves the western parts of Zimbabwe and Zambia. This border post is very busy and is able to handle heavy vehicles.*

**Indirect impacts:**

- People will lose their jobs should decommissioning take place.

*People will lose their jobs should decommissioning take place. This can have an impact on the crime in the area. Crime can increase due to job losses.*

**Cumulative impacts:**

- Negative impact on local economy

*Change of land use from (relatively) natural veldt to a suburban environment will occur. The proposed development will contribute towards housing in the area.*

**3. ENVIRONMENTAL IMPACT STATEMENT**

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Alternative A (preferred alternative)**

Ground clearance will take place during the construction of the residential project. Protected trees (*Sclerocarya birrea* and *Boscia albitrunca*) and other indigenous shrubs and trees should be left intact.

Indigenous trees should be planted along the planned streets and open species to limit the visual impact and to the greening policy of the Province. The impact will not be significant after mitigation measures are implemented as set out in the report.

The proposed area is big enough to construct a residential project. This type of development will not have a significant impact on the environment after the mitigation measures are put in place.

**No-go alternative (compulsory)**

The demand for housing will not be resolved should the residential project not be constructed.

**Alternative B**

**Alternative C**

**For more alternatives please continue as alternative D, E, etc.**

## SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES

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

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

- **The mitigation measures stipulated in this report should be conveyed to contractors and persons responsible for construction.**
- **The mitigation section should be issued as a stand along document to all parties involved with the planning, implementation and operation of the proposed project.**
- **The applicant must monitor that all parties involved with the development of the institution are complying with the mitigation measures put out in this Basic Assessment Report.**
- **There should also be penalties for non-compliance.**

Is an EMP<sub>r</sub> attached?

YES

The EMP<sub>r</sub> must be attached as Appendix F.

## **SECTION F: APPENDIXES**

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

- Assessment of Alternatives
- Letter from Mr Els
- Letter from Lephalale Municipality
- Sewer Plan
- Letters from Department of Water Affairs (DWA)

## **SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER**

I, **Anton von Well** declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

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**Signature of the Environmental Assessment Practitioner:**

---

**Name of company:**

---

**Date:**



# LIMPOPO

PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

## DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

### BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

Basic Assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

File Reference Number:

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NEAS Reference Number:

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

(For official use only)


1. The report must be compiled by an independent Environmental Assessment Practitioner.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable in the report.
4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.
5. An incomplete report may be returned to the applicant for revision.
6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

Cnr Suid & Dorp Streets, POLOKWANE, 0700, P O Box 55464, POLOKWANE, 0700  
Tel: 015 290 7138/ 7167, Fax: 015 295 5015, website: <http://www.ledet.gov.za>

***The heartland of southern Africa – development is about people!***

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

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

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

## SECTION A: ACTIVITY INFORMATION

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

YES

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

Any specialist reports must be contained in Appendix D.

### 1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail<sup>1</sup>:

The establishment of a housing project measuring approximately 18,2 hectares on Portion 7 of the Farm Van Wyksfontein 3 LR.

The project will consist of the following:

- 79 Residential 1 Erven
- 1 Residential 3 Erf
- 3 Public Open Space Erven
- 3 Business 1 Erven
- 1 Filling Station
- 1 Undetermined Erf
- Roads with a length of 2 016m

The filling station will have a total capacity of 300 000 liter and will consist of 150 000 liter diesel and 150 000 liter petrol.

Engineering services like sewage, water supply and electricity will be installed.

### 2. FEASIBLE AND REASONABLE ALTERNATIVES

“**alternatives**”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;

The proposed site is located on Portion 7 of the Farm Van Wyksfontein 3 LR at Tom Burke.

The proposed site is big enough to accommodate the proposed housing development. The topography of the area is relatively flat.

Access and electricity are available at the proposed site.

The proposed property belongs to the developer.

<sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.



An archaeologist surveyed the proposed development area and no sites of heritage significance were identified in the direct vicinity of the study area. A small, fenced cemetery was identified. The cemetery measures approximately 10m x 20m in size and has 23 graves within it. The graveyard will be included into the proposed development and will not be destroyed.

The area is not environmentally sensitive, it is disturbed by previous development. The development must take place around the protected *Sclerocarya birrea* and *Boscia albitrunca* trees.

The proposed site is thus highly suitable for a development of this kind. Other alternative sites are therefore not feasible. Therefore application for exemption from having to assess alternative sites is herewith made.

(b) the type of activity to be undertaken;

This project entails the construction of a residential development. The size of the site will be approximately 18,2ha.

(c) the design or layout of the activity;

The project will consist of the following:

- 79 Residential 1 Erven
- 1 Residential 3 Erf
- 3 Public Open Space Erven
- 3 Business 1 Erven
- 1 Filling Station
- 1 Undetermined Erf
- Roads with a length of 2 016m

Engineering services like sewage, water supply and electricity will be installed.

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

No technology alternatives were identified.

(e) the operational aspects of the activity; and

Due to the extremely limited extent of the proposed activity, the impact upon the environment will be minimal. The surface area that will be covered on the ground is approximately 18,2ha.

(f) the option of not implementing the activity.

Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow.

**The Reader is referred to Appendix G (Assessment of Alternatives) for a description of the identified alternatives that have been investigated.**

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the Department may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

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

### 3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

**Latitude (S):**

**Longitude (E):**

**Alternative:**

Alternative S1<sup>2</sup> (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

23°	04'	04,5"	27°	59'	54,0"
°	'	"	°	'	"
°	'	"	°	'	"

**In the case of linear activities:**

**Alternative:**

Alternative S1 (preferred or only route alternative)

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

**Latitude (S):**

**Longitude (E):**

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

Alternative S2 (if any)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

<sup>2</sup> "Alternative S.." refer to site alternatives.

Alternative S3 (if any)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

#### 4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

**Alternative:**

Alternative A1<sup>3</sup> (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

or,

for linear activities:

**Size of the activity:**

182 000m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

**Length of the activity:**

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

m
m
m

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

**Size of the site/servitude:**

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

182 000m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

<sup>3</sup> "Alternative A.." refer to activity, process, technology or other alternatives.  
LEDET BA Report, EIA 2014: Project Name: Housing Development – Tom Burke

## 5. SITE ACCESS

Does ready access to the site exist?

YES	
	m

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

Describe the type of access road planned:

N/A

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

## 6. SITE OR ROUTE PLAN

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

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - rivers;
  - the 1:100 year flood line (where available or where it is required by Department of Water Affairs);
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

**7. SITE PHOTOGRAPHS**

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

**8. FACILITY ILLUSTRATION**

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

**9. ACTIVITY MOTIVATION**

**9(a) Socio-economic value of the activity**

What is the expected capital value of the activity on completion?	R20 000 000-00
What is the expected yearly income that will be generated by or as a result of the activity?	R12 000 000-00
Will the activity contribute to service infrastructure?	<b>YES</b>
Is the activity a public amenity?	<b>YES</b>
How many new employment opportunities will be created in the development phase of the activity?	30
What is the expected value of the employment opportunities during the development phase?	R60 000-00
What percentage of this will accrue to previously disadvantaged individuals?	60%
How many permanent new employment opportunities will be created during the operational phase of the activity?	30
What is the expected current value of the employment opportunities during the first 10 years?	R2 000 000-00
What percentage of this will accrue to previously disadvantaged individuals?	60%

**9(b) Need and desirability of the activity**

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

<b>NEED:</b>		
i.	Was the relevant municipality involved in the application?	<b>YES</b>
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	<b>YES</b>
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:	

--	--

<b>DESIRABILITY:</b>		
i.	<p>Does the proposed land use / development fit the surrounding area?</p> <p><i>Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow. In 2006 it had a population of 808 people.</i></p> <p><i>There are a number of activities going on, and developments planned close to and in Tom Burke. Tom Burke is the last settlement before the Groblersbrug border post and is situated only ± 7 km south thereof. Groblersbrug border post is one of the major border posts between South Africa and Botswana. Most goods and services for the north eastern part of Botswana leaves and enters South Africa through this border post. This border post also serves the western parts of Zimbabwe and Zambia. This border post is very busy and is able to handle heavy vehicles.</i></p> <p><i>There is also a strong farming community present in the Tom Burke area and cattle farming, game farming and especially irrigation farming is very prominent in this part of the municipal area.</i></p> <p><i>Activities in and around Tom Burke includes a traffic control centre with a weigh bridge situated on Portion 6 of the farm Welvaart 27 LQ. This facility is situated ± 500 meters west of the proposed housing development. At the border post is a truck inn, general dealer, overnight accommodation and fuel pumps. On Portion 6 of the farm Doornplaats is a caravan park. On Portion 3 of the farm Van Wyksfontein which is directly adjacent to the proposed housing development is the police station. On Portion 9 which is ± 200 meter south west of the proposed housing development is a guesthouse. On Portion 10 which is ± 100 meter south of the proposed housing development is the NTK cooperative. As mentioned on the application property is the Tom Burke post office and old filling station.</i></p> <p><i>This settlement plays an important role in serving the border post, the residents within Tom Burke, the farming community, and people from the northern cluster of the villages and Marnitz. Lacking in Tom Burke is proper residential and business facilities.</i></p>	YES
ii.	<p>Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?</p> <p><i>Tom Burke serfs approximately 15 000 people. This figure is based on the 2012 population statistics as is presented in the Lephalale Spatial Development Framework (SDF) and is now higher.</i></p> <p><i>In terms of the SDF Tom Burke is earmarked as a Local Service Point (LSP). LSP's is concentration points which provide centres where basic goods and services are located.</i></p> <p><i>The SDF indicates that approximately 6% of the Lephalale population resides in LSP's. It also indicates that the average population growth rate for the Lephalale municipal area is between 1.4% and 1.8%. Natural growth will therefore result in an increase in the population of Tom Burke.</i></p> <p><i>The Lephalale Integrated Development Plan (IDP) indicates that Lephalale has a unemployment figure of 22, 9% which is below the provincial average although in the rural areas it is more than 40%.</i></p>	YES

	<p>The closest health care facility is situated in Ga Seleka which is as indicated ±15 kilometres south west of Tom Burke.</p> <p>The two predominant sectors of the economy is mining and retail trade with respective percentages of 27, 3% and 19, 5% of the total employment. This is followed by agriculture with 14%.</p> <p>The local economy is driven by a strong mining sector which contributes an enormous 71% to the total gross value added production per sector in the local economy.</p>		
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
v.	Will the proposed land use / development impact on the sense of place?		NO
vi.	Will the proposed land use / development set a precedent?		NO
vii.	Will any person's rights be affected by the proposed land use / development?		NO
viii.	Will the proposed land use / development compromise the "urban edge"?		NO
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

<b>BENEFITS:</b>			
i.	Will the land use / development have any benefits for society in general?	YES	
ii.	<p>Explain:</p> <p>Located in the Limpopo Province at Tom Burke (± 600 meters west of the application property) is the Tom Burke solar PV plant which on completion will have a capacity of 66MW and will have the ability to add 122 GWh a year to the grid once fully operational.</p> <p>This will meet the energy needs of 38,000 homes and save 111,000 tons of CO2 from being emitted each year.</p> <p>Enel Green Power has already started with the construction of this plant. This plant will create a number of temporary and permanent jobs. Obviously this development will create a need for temporary and permanent accommodation, business and other community facilities.</p> <p>Another major project namely the Moonlight Iron Ore Project is planned, ±15 kilometers south of Tom Burke along the N11.</p> <p>In 2012 a 30 year mining right was granted by the Department of Minerals over the farms Moonlight, Julietta and Gouda Fontein. These farms covers an area of 53 km<sup>2</sup>.</p> <p>What makes this mine highly attractive is the vast high quality iron reserves on the mentioned farms and the fact that existing iron mines in South Africa is in decline. It is a well-known fact that the iron reserves in Thabazimbi is depleted and that the Thabazimbi iron mine is in the process of closing down.</p> <p>The Moonlight Iron mine will produce high quality direct reduction and blast furnace grade iron pellets. There is an increasing global demand for this product. South Africa's steel industry is a major employer</p>		

	<p>needing new cost effective iron ore supply.</p> <p>The Ga-Seleka community holds 3% equity in this mining project. The development of this mine holds a number of benefits for this community namely sustainable employment, training, industry development and expansion, taxes, royalties and other general social benefits.</p> <p>An environmental impact assessment (EIA) for the mine and concentrator related areas was completed and submitted to the Department of Economic Development Environment and Tourism. The EIA was approved in April 2013.</p> <p>Recent additional funds allows the company now to proceed with drilling, pilot process test work, mining designs and plans, process design and engineering, infrastructure commitments and overall project capital and operating cost estimates which will take ±18 months to conclude. Thereafter they can commence with the construction of the mine which is estimated to take 30 to 36 month. Thereafter the mine will be fully operational.</p> <p>Once fully operational the mine will employ ± 3600 people. At an average of 4 people per household, the accommodation need will be for 900 dwelling units and related facilities like businesses etcetera.</p> <p>The proposed housing development is close to the mine and will be ideally situated to provide in this need.</p> <p>Mr. Ryan Els planted crops on the proposed development site from 2004 till 2010. He planted tomatoes, onions, gems, potatoes, green peppers, patty's and marrows. They battled to be successful as the soil is sterile and they battled with diseases like curly stunt virus. The soil has a high concentration of lime and is very shallow, which makes farming very difficult, see letter in Appendix G.</p>
iii.	<p>Will the land use / development have any benefits for the local communities where it will be located?</p> <p style="text-align: right;"><b>YES</b></p>
iv.	<p>Explain:</p> <p>Clearly, once the PV plant and mine commences operating further jobs will be created directly in the area and indirectly through other industries which spring up around and support large industries such as these ones. Various support services such as medical, legal, auditing, retail, commercial, community, and governmental can be envisaged where the people who are drawn to these large industrial applications for work purposes need specific support services.</p> <p>Obviously the projects mentioned above will increase not only the demand for residential facilities but also for all other type of facilities including the facilities which the proposed housing development will offer.</p>

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

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

Title of legislation, policy or guideline:	Administering authority:	Date:
Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998)	Department of Environmental Affairs	2014
Constitution of South Africa Act No. 108 of 1996	National & Provincial	18 December 1996
National Environmental Management: Biodiversity Act No.	National & Provincial	7 June 2004



10 of 2004		
Section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999)	SAHRA	1999

## 11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### 11(a) Solid waste management

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

YES

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

±50m<sup>3</sup>

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

**Trucks / pickups will collect all the building rubble and it will be disposed of at the municipal waste disposal site. The rubble will be covered with a tarpaulin to prevent that any waste will be blown off from the vehicle. Light rubble which can be blown off vehicles will be placed in containers when it is transport.**

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

**Because of the remoteness of application property the Lephalale Municipality currently provides no refuse removal services although from discussions with the relevant officials at the municipality, the municipality is planning to institute such a service to the area. The closest refuse dumping site is the Groothoek dumping site in Lephalale town.**

**There are a number of private service providers specializing in the removal of solid waste. The applicant will contract such a company to remove the solid waste on a regular basis up to such a stage when the municipality is able to collect and remove the solid waste generated on site.**

**A letter was obtained from the Lephalale Municipality that the solid waste may be disposed at the Groothoek dumping site in Lephalale town, see Appendix G.**

Will the activity produce solid waste during its operational phase?

YES

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

±50m<sup>3</sup>

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

**The solid waste will mainly consist of households and it will be collected in waste bins. The proposed development will not produce hazardous waste.**

**The temporary storage facility will be free from odour or emissions to prevent any annoyance to the surrounding area. The waste bins will be provided with lids and it will not be overfilled. The developer will make sure that the waste bins are always in a good condition.**

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

**Because of the remoteness of application property the Lephalale Municipality currently provides no refuse removal services although from discussions with the relevant officials at the municipality, the municipality is planning to institute such a service to the area. The closest refuse dumping site is the Groothoek dumping site in Lephalale town.**

**There are a number of private service providers specializing in the removal of solid waste. The applicant will contract such a company to remove the solid waste on a regular basis up to such a stage when the municipality is able to collect and remove the solid waste generated on site.**

**A letter was obtained from the Lephalale Municipality that the solid waste may be disposed at the Groothoek dumping site in Lephalale town, see Appendix G.**

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the department to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?  YES  NO  
 If yes, inform the department and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?  YES  NO  
 If yes, then the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

**11(b) Liquid effluent**

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?  YES  NO

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

Will the activity produce any effluent that will be treated and/or disposed of on site?  YES  NO

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

Will the activity produce effluent that will be treated and/or disposed of at another facility?  YES  NO

If yes, provide the particulars of the facility:

Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:	Cell:	
E-mail:	Fax:	

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

**The proposed development area has no municipal sewer point. It is proposed herewith that onsite sewage treatment be provided. Treated effluent will be discharged in to a retention dam which will be utilized for irrigation purposes in the development.**

**The internal sewer network will drain to the low point in the proposed development area where the proposed sewer pump station will be erected. The raw sewer will be pumped from the pump station to the onsite sewage treatment plant which will be erected next to an existing dam, see Sketch Plan in Appendix G.**

**The internal sewers in the proposed development will comply with the standards of the Local Municipal Authority with regard to domestic sewage outflow, but will not be handed over to the Local Municipal Authority on completion of the installations.**

The internal sewer network, including the onsite sewage treatment plant, will be the responsibility of the Section 21 Company to be established to maintain and operate the internal sewers.  
 The proposed development will produce approximately 88 200 litre sewer per day.  
 The Department of Water Affairs supports a close treatment system like a Lilliput System, see Appendix G.

**11(c) Emissions into the atmosphere**

Will the activity release emissions into the atmosphere?

	NO
--	----

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

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

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

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**11(d) Generation of noise**

Will the activity generate noise?

	NO
--	----

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

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

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

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**12. WATER USE**

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

	Groundwater			
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

3 487 500 Litres
YES

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

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

**No significant impacts on groundwater resources and water users are expected if the underground fuel storage tank installations are constructed to specification. See Geotechnical and Geohydrological Report in Appendix D.**

**13. ENERGY EFFICIENCY**

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

**Electricity will be provided by Eskom who is the supply authority.**

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

**Electricity will be provided by Eskom who is the supply authority.**

## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

### Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.   
(e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.

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

**YES**

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

All specialist reports must be contained in Appendix D.

Property description/physical address:

**The proposed site is located on Portion 7 of the Farm Van Wyksfontein 3 LR at Tom Burke, Lephalale Municipal area.**

**The size of the site will be approximately 18,2ha.**

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

Town/district:

**Tom Burke**

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

**Agriculture**

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

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

**YES**

Must a building plan be submitted to the local authority?

**YES**

Locality map: An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:

- an indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

## 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat						
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Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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## 2. LOCATION IN LANDSCAPE

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

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

### 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	NO	YES NO	YES NO
Dolomite, sinkhole or doline areas	NO	YES NO	YES NO
Seasonally wet soils (often close to water bodies)	NO	YES NO	YES NO
Unstable rocky slopes or steep slopes with loose soil	NO	YES NO	YES NO
Dispersive soils (soils that dissolve in water)	NO	YES NO	YES NO
Soils with high clay content (clay fraction more than 40%)	NO	YES NO	YES NO
Any other unstable soil or geological feature	NO	YES NO	YES NO
An area sensitive to erosion	NO	YES NO	YES NO

A level 3 geotechnical investigation was conducted for the proposed development. See Geotechnical and Geohydrological Report in Appendix D.

Conclusions:

- The site is underlain by transported soil and meta-sediment of the Limpopo Mobile Belt on the valley floor above the flood limit of the Limpopo River.
- Two soil profiles have been identified on site:
  - Profile 1, Transported and meta sediments
  - Profile 2, Hardpan Calcrete
- Profile 1: The natural soil profile on site consist of a upper, dry, uniform reddish brown, loose to medium dense, intact, fine grained sand with silt, (TRANSPORTED / REWORKED) layer with roots, overlying a dry, uniform reddish brown, dense, intact, sand with silt (TRANSPORTED SOIL), interlayered with a dry, uniform reddish brown, dense intact, gravel in a matrix of fine grained sand and silt (COLLUVIUM). Underlying the transported soils is dry, pinkish brown spotted white, very dense, highly weathered gravel with a sandy matrix grading into a weathered medium strong to strong meta sediment with a calcrete capping in places. Excavatability below 1.2m is hard.
- Profile 2: The area is identifiable as the whitish to light grey areas on the aerial photo's. The profile consist of a dry grey-brown, speckled light grey, loose to medium dense gravelly sand with silt (WEATHERED CALCRETE) and topsoil with roots, overlying dry grey-brown, speckled light grey, medium dense sandy gravel with silt (WEATHERED CALCRETE), grading into HARDPAN CALCRETE, as encountered in Trial pit TBD 1. The TLB reached refusal in the hardpan calcrete at 0.5m below surface. Excavatability below 0.5m will be hard.
- The potential for collapse of side walls of deep excavations is moderate.
- No shallow groundwater conditions were encountered expected.



- Construction materials should be sourced off site.
- No Mining activities past or present will influence the planned structures.
- The geotechnical risk classification for the site is:
  - Profile 1 Class F2 due to hard excavatability below 1.2m.
  - Profile 2 Class F3 due to hard excavatability below 0.5m
- The NHRRC site Class designation for the three profiles are:
  - Profile 1 S
  - Profile 2 R
- Based on the geotechnical evaluation two land use areas have been defined:
- Land Use Area A covers the transported soils and weathered meta sedimentary bedrock areas as encountered in all the trial pits except trial pit TBD 1 (Profile 1) area and is classified as **DEVELOPABLE with minor precautions** due to the minor risk of collapse settlement of foundations and hard excavatability below 1.2m. The NHRRC Site class designation for this area is S and normal foundations with compaction of trenches below footing level is recommended.
- Land Use Area B covers the soil profile 2 area and is classified as **DEVELOPABLE with precautions**. The profile consists of a thin layer of topsoil and weathered calcrete underlain by hardpan calcrete. Excavatability will be hard below 0.5m. The NHRRC Site class designation for this area is R. Normal foundations are recommended. Surface calcrete is usually associated with local depressions where water tends to pond in high rainfall events. The natural drainage in the area is disrupted by the road south of the property and thus flooding risk is minimal
- **From a geotechnical perspective Land Use Area A and B is suitable for development. Land Use Area A is better suited for the installation of underground fuel storage tanks**

#### 4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

	Cultivated land			

An Ecological Study was done by a qualified ecologist. See Ecological Report in Appendix D.

Conclusion:

The conservation value and site sensitivity of the demarcated area is low. The demarcated area falls within a fragmented degraded area and is adjacent to an existing village.

The proposed development is supported under the condition that mitigation measures are adhering to.

The following is recommended:

- Protected trees should be left intact.
- Trees such as *Acacia galpinii*, *Schotia brachypetala*, *Adansonia digitata*, *Sclerocarya birrea* and *Acacia nigrescens* should be planted to mitigate the development and limit the limited visual impact.

## 5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area	√	5.22 School	
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential		5.24 Church	
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial <sup>AN</sup>		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
<b>5.7 Military or police base/station/compound</b>	√	5.28 Protected Area	
5.8 Spoil heap or slimes dam <sup>A</sup>		5.29 Sewage treatment plant <sup>A</sup>	
5.9 Light industrial		5.30 Train station or shunting yard <sup>N</sup>	
5.10 Heavy industrial <sup>AN</sup>		5.31 Railway line <sup>N</sup>	
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities		5.33 Airport <sup>N</sup>	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station <sup>H</sup>		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	
5.17 Plantation		5.38 Nature conservation area	
<b>5.18 Agriculture</b>	√	5.39 Mountain, koppie or ridge	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
5.21 Dam or Reservoir		5.42 Other land uses (describe)	

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

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

If YES, specify and explain:	
If NO, specify:	

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

If YES, specify and explain:	
If NO, specify:	

## 6. CULTURAL/HISTORICAL FEATURES

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

YES

If YES, explain:

An Archaeologist was appointed to do the necessary Heritage Impact Assessment. See Appendix D.

A small, fenced cemetery was identified. The cemetery measures approximately 10m x 20m in size and has 23 graves within it. The graves were all orientated from west to east and they were placed in two unequal lines next to each other. Nine of the graves have formal granite dressings and headstones and the rest of the graves have brick and cement frames as dressings, with cement or sandstone headstones. The graves varied in age from between the 1920's up to the 1970's. The cemetery was not maintained recently and some of the graves are damaged.

This site is a small, fenced cemetery with 23 graves. It also includes the grave of Tom Burke after which the town was named. The developer has indicated that the development will be around the cemetery and that it would not be affected by the development. The following general recommendations are advisable for identified graves and cemeteries:

It is recommended that the area where the graves are located be avoided during development.

If the developer decides to plan the development around the identified graves and leave them undisturbed, adequate arrangements should be made to protect the graves from the impact of the development. These should include the following:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly demarcated with barrier tape during the entire duration of the project and especially during earth-moving/bush clearing activities. A 10m buffer zone must be allowed around the graves.

- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
  - It is advisable to fence the graves to prevent future damage. A buffer zone of at least 10m around the graves is recommended.
  - The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
  - Bush clearing crews should be made aware of the presence of the graves in order to avoid damaging it during the earth-moving activities.
  - The planning team should ensure that access to the graves by the next of kin is not limited in any way. A management plan should be set up to ensure the future safety, access and maintenance of the graves alongside the proposed development.
- An old farmhouse was identified. The farmhouse is square and measures approximately 20m x 20m in size. The house has a pitched corrugated roof and metal window and door frames. An extended veranda is situated on the western side of the house. The house has external water and electrical systems and this could indicate that the house is most probably older than 60 years old.
- The farmhouse is currently being occupied. From the architectural style and the building methods employed during the construction of the house it is believed that the house is most probably older than 60 years. Structures more than 60 years old are protected under Section 34 of the National Heritage Resources Act 25 of 1999, which states that “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority...”.
- It is recommended to apply for a permit for destruction from the Limpopo Heritage Resources Agency (LIHRA). LIHRA will stipulate the requirements for further mitigation work, before the permit of destruction will be issued. Only after the permit for destruction has been obtained can the destruction of the structure continue.

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

Will any building or structure older than 60 years be affected in any way?	<b>YES</b>	
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	<b>YES</b>	

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

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

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
  - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  - (v) the municipality which has jurisdiction in the area;
  - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  - (vii) any other party as required by the department;
- (c) placing an advertisement in—
  - (i) one local newspaper; or
  - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—
  - (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.

## **2. CONTENT OF ADVERTISEMENTS AND NOTICES**

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
  - (i) that the application has been submitted to the department in terms of these Regulations, as the case may be;
  - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
  - (iii) the nature and location of the activity to which the application relates;
  - (iv) where further information on the application or activity can be obtained; and
  - (v) the manner in which and the person to whom representations in respect of the application may be made.

## **3. PLACEMENT OF ADVERTISEMENTS AND NOTICES**

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

## **4. DETERMINATION OF APPROPRIATE MEASURES**

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

## **5. COMMENTS AND RESPONSE REPORT**

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in

these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

## 6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

Name of Authority informed:	Comments received (Yes or No)
Department of Public Works Private Bag X9469 POLOKWANE 0700 Ms. Pinkie Harricks	No
The Chief Director Department of Water Affairs WQM Section Private Bag X9506 POLOKWANE 0700 Ms. Magdeline M. Msimanga	No
The Manager Roads Agency Limpopo Private Bag X9554 POLOKWANE 0700 Ms. S.P. Tshivhase	No
Department of Sports, Arts and Culture Postnet Suite 21 Private Bag X9307 POLOKWANE 0700 Mr. Donald Lithole	No

Lephalale Local Municipality The Municipal Manager Private Bag X136 LEPHALALE 0555	No
Ward Councillor – Tom Burke Area Private Bag X136 LEPHALALE 0555	No
Waterberg District Municipality Private Bag X1018 MODIMOLLE 0510	No
SAPS – Tom Burke Private Bag X510 TOM BURKE 0621 Captain Mabote	No
The Director Department of Agriculture Land Use & Soil Management P.O. Box 3620 POLOKWANE 0700 Mr. Foletji Mahlakoane	No

## 7. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

Has any comment been received from stakeholders?

**NO**

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

--



## SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

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

List the main issues raised by interested and affected parties.

Hotane, Snyman & Taljaard Incorporated and VKB Agriculture (Pty) Ltd have registered as Interested and Affected Parties.

Mr. Gerhard Vos has originally registered as Interested and Affected Party but he has withdrawn his objection, see Appendix E.

See Comments & Response Report in Appendix E.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

### 2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

#### Alternative (preferred alternative)

##### PLANNING AND DESIGN PHASE

###### **Direct impacts:**

- The destruction of natural vegetation during initial investigations, due to induced vehicular movement e.g. surveyors vehicles etc.

*Existing tracks/roads should be used when accessing the site for planning purposes. Sampling rather than removal of existing plant material should take place (and then only if essential).*

- Damage to flora due to site clearing

*Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Vehicular access should be restricted to essential areas only. Grass occurring on and near construction sites*

*should be retained where possible, to assist in retarding erosion. During excavations, the area that is disturbed should be kept as small as possible, so as to minimise disturbances to the environment.*

**Indirect impacts:**

- Soil erosion due to vegetation clearance

*As much natural vegetation should be retained as is possible (especially natural occurring trees).*

- Unsocial activities at construction site (e.g. crime)

*Appointed contractors should be required to implement security measures at construction camps/material laydown areas. Security gate control measures should be implemented in order that only labourers and authorised persons obtain access to the construction camps/material laydown areas.*

- Construction traffic and access

*Existing tracks/roads should be used when accessing the site.*

- Impact of construction noise on adjacent residential areas

*Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to between 06h00 and 17h00 (Mondays to Saturdays only). Adjacent residents shall be informed of unusually noisy activities that will be undertaken. Works instructions shall be issued regarding the minimisation of noise to all workers (especially those using noisy equipment).*

- Hunting and capture of birds and other fauna by construction workers

*Capture or snaring of birds or other fauna must be strictly prohibited on site - especially with regards to contractors employees.*

- Proliferation of alien plant species during and after construction

*Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.*

- Impact of nuisances resulting from construction (e.g. dust, smoke & noise)

*Damping down of unsurfaced roads should take place. Trucks should avoid travelling unnecessarily through residential areas or private land.*

- High positive expectations regarding employment opportunities

*Local employment and procurement should receive priority when embarking upon planning and construction*

activities.

**Cumulative impacts:**

- Visual impact of construction activities

*Retain as many existing trees as possible to screen construction works. Change of land use from natural (disturbed) veld to a construction site will occur. This must however be seen in the context of the fairly short duration of the construction phase. Construction activities should be kept clustered on site at all times.*

- Temporary employment creation

*Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.*

**CONSTRUCTION PHASE**

**Direct impacts:**

- Construction traffic and access

*Damping down of unsurfaced roads should take place. Trucks should avoid travelling unnecessarily through private land.*

- Construction impacts on soils (upsetting of soil horizons through groundworks and/or compaction by vehicles)

*Selective stripping of topsoil, subsoil and overburden should take place. Stockpiling of removed earth (separately) should take place and be returned for backfilling in the correct soil horizon order. In all construction areas (e.g. material laydown areas), topsoil and subsoils should be protected from contamination/pollution (e.g. by fuel etc.). Stockpiling of removed earth should not occur in drainage lines or impede surface water runoff.*

- Pollution of groundwater

*Controlled use and or storage of all fuels and chemicals during construction is advised. Due to very limited amounts of the aforementioned substances being used during construction, leaching thereof into the underground water is highly unlikely. Adequate fuel containment facilities should however be used. Adequate sanitary facilities and ablutions must be provided for construction workers.*

- Soil erosion due to vegetation clearance

*When soil is cleared of vegetation, management techniques to prevent water erosion should be employed (e.g. reduction of water velocity and the diversion of surface water runoff downslope).*

- Damage to flora due to site clearing

*Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Vehicular access should be restricted to essential areas only. Grass occurring on and near construction sites should be retained where possible, to assist in retarding erosion. During excavations, the area that is disturbed should be kept as small as possible, so as to minimise disturbances to the environment.*

**Indirect impacts:**

- Potential injury to construction workers

*Implementation of safety measures and work procedures and first aid facilities should be required of contractors.*

- Unsocial activities at construction site (e.g. crime)

*Appointed contractors should be required to implement security measures at construction camps/material laydown areas. Security gate control measures should be implemented in order that only labourers and authorised persons obtain access to the construction camps/material laydown areas.*

- Impact of construction noise on adjacent residential areas

*Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to between 06h00 and 17h00 (Mondays to Saturdays only).*

- Plant collection, utilising of trees for firewood, etc. by construction workers

*Effective site control and monitoring by site engineer should take place. No fires should be allowed on site except in designated areas. Access to the site should be controlled - local disadvantaged residents should be allowed to collect firewood (only where bush is to be cleared).*

- Hunting and capture of birds and other fauna by construction workers

*Capture or snaring of birds or other fauna must be strictly prohibited on site - especially with regards to contractors employees.*

- Visual impact of construction activities

*Retain as many existing trees as possible to screen construction works. Construction activities should be kept clustered on site at all times.*

- Impact of nuisances resulting from construction (e.g. dust, smoke & noise)

*Damping down of graded roads and cleared areas should take place during construction. As much natural vegetation should be retained as is possible (especially natural occurring trees). As a mitigatory measure, construction should be limited to normal working hours. Construction shall be restricted to limited working hours (06h00 to 17h00 from Monday to Saturdays only). No work shall be conducted on Sundays. Adjacent residents shall be informed of unusually noisy activities that will be undertaken. Works instructions shall be issued regarding the minimisation of noise to all workers (especially those using noisy equipment).*

- Uncovering of heritage or archaeological sites/resources/graves

*In the case of an archaeological/heritage resources “find”, all excavation work should be halted and a heritage resources practitioner should be consulted (or alternatively the nearest SAHRA office). If found, graves shall be relocated in accordance with the stipulations of the South African Heritage Resources Act and its relevant regulations pertaining to graves.*

**Cumulative impacts:**

- Replacement of fauna due to site clearing

*Translocation of wild animals noted during construction shall be undertaken by a suitably qualified contractor. This shall only be done after the required permits for translocation have been obtained from LEDET.*

- Proliferation of alien plant species during and after construction

*Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.*

- High positive expectations regarding employment opportunities

*Local employment and procurement should receive priority when embarking upon planning and construction activities. Contractors should be required to make use of local labour and suppliers where possible.*

- Temporary employment creation

*Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.*

**OPERATIONAL PHASE**

**Direct impacts:**

- Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape.

*Change of land use from relatively natural veld to a suburban environment will occur. This must however be seen in the context of the existing developments located in the area. The potential of the proposed development to impact negatively on the character of the area is anticipated to be minimal, due to the already developed nature of the surrounding areas.*

- Generation of waste by the proposed development

*The proposed development is located in Tom Burke. The proposed development area has no municipal sewer point. It is proposed herewith that onsite sewage treatment be provided.*

- Leakage from underground fuel tanks resulting in pollution of land (soil) and underground water

*All containment structures for polluted water should be lined to prevent seepage and pollution of*

groundwater.

*Daily reconciliation of the volumes of petroleum products should be done to ensure early detection of a possible leak.*

*Leakage detectors and odour detectors should be installed. Checking for product losses should take place regularly. Any losses should be reported to the relevant oil company and relevant authorities within 14 days and the necessary remedial action taken.*

**Indirect impacts:**

- Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape

*The development of a residential project will serve to lessen the overall negative impact on the environment should the buildings be designed so that it blends in with the prevailing architectural character of the area.*

**Cumulative impacts:**

- Development of the proposed residential project will impact positively on the local economy and land values  
*Change of land use from (relatively) natural veldt to a suburban environment will occur. The proposed development will create additional jobs for the local people.*

**DECOMMISSIONING**

**Direct impacts:**

- Should the proposed site be decommissioned then a new site has to be identified for the development of the residential project.

*Should the proposed site be decommissioned then a new site has to be identified for the development of the residential project. This will put more pressure to provide housing in the community.*

*Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow. In 2006 it had a population of 808 people.*

*There are a number of activities going on, and developments planned close to and in Tom Burke. Tom Burke is the last settlement before the Groblersbrug border post and is situated only  $\pm 7$  km south thereof. Groblersbrug border post is one of the major border posts between South Africa and Botswana. Most goods and services for the north eastern part of Botswana leaves and enters South Africa through this border post. This border post also serves the western parts of Zimbabwe and Zambia. This border post is very busy and is able to handle heavy vehicles.*

**Indirect impacts:**

- People will lose their jobs should decommissioning take place.

*People will lose their jobs should decommissioning take place. This can have an impact on the crime in the area. Crime can increase due to job losses.*

**Cumulative impacts:**

- Negative impact on local economy

*Change of land use from (relatively) natural veldt to a suburban environment will occur. The proposed development will contribute towards housing in the area.*

**3. ENVIRONMENTAL IMPACT STATEMENT**

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Alternative A (preferred alternative)**

Ground clearance will take place during the construction of the residential project. Protected trees (*Sclerocarya birrea* and *Boscia albitrunca*) and other indigenous shrubs and trees should be left intact.

Indigenous trees should be planted along the planned streets and open species to limit the visual impact and to the greening policy of the Province. The impact will not be significant after mitigation measures are implemented as set out in the report.

The proposed area is big enough to construct a residential project. This type of development will not have a significant impact on the environment after the mitigation measures are put in place.

**No-go alternative (compulsory)**

The demand for housing will not be resolved should the residential project not be constructed.

**Alternative B**

**Alternative C**

**For more alternatives please continue as alternative D, E, etc.**

## SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES

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

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

- **The mitigation measures stipulated in this report should be conveyed to contractors and persons responsible for construction.**
- **The mitigation section should be issued as a stand along document to all parties involved with the planning, implementation and operation of the proposed project.**
- **The applicant must monitor that all parties involved with the development of the institution are complying with the mitigation measures put out in this Basic Assessment Report.**
- **There should also be penalties for non-compliance.**

Is an EMPr attached?

YES

The EMPr must be attached as Appendix F.



## **SECTION F: APPENDIXES**

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

- Assessment of Alternatives
- Letter from Mr Els
- Letter from Lephalale Municipality
- Sewer Plan
- Letters from Department of Water Affairs (DWA)

## **SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER**

I, **Anton von Well** declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

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**Signature of the Environmental Assessment Practitioner:**

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**Name of company:**

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**Date:**



# LIMPOPO

PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

## DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

### BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

Basic Assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

File Reference Number:

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NEAS Reference Number:

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

(For official use only)


1. The report must be compiled by an independent Environmental Assessment Practitioner.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable in the report.
4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.
5. An incomplete report may be returned to the applicant for revision.
6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

Cnr Suid & Dorp Streets, POLOKWANE, 0700, P O Box 55464, POLOKWANE, 0700  
Tel: 015 290 7138/ 7167, Fax: 015 295 5015, website: <http://www.ljedet.gov.za>

***The heartland of southern Africa – development is about people!***

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

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

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

## SECTION A: ACTIVITY INFORMATION

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

YES

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

Any specialist reports must be contained in Appendix D.

### 1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail<sup>1</sup>:

The establishment of a housing project measuring approximately 18,2 hectares on Portion 7 of the Farm Van Wyksfontein 3 LR.

The project will consist of the following:

- 79 Residential 1 Erven
- 1 Residential 3 Erf
- 3 Public Open Space Erven
- 3 Business 1 Erven
- 1 Filling Station
- 1 Undetermined Erf
- Roads with a length of 2 016m

The filling station will have a total capacity of 300 000 liter and will consist of 150 000 liter diesel and 150 000 liter petrol.

Engineering services like sewage, water supply and electricity will be installed.

### 2. FEASIBLE AND REASONABLE ALTERNATIVES

“**alternatives**”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;

The proposed site is located on Portion 7 of the Farm Van Wyksfontein 3 LR at Tom Burke.

The proposed site is big enough to accommodate the proposed housing development. The topography of the area is relatively flat.

Access and electricity are available at the proposed site.

The proposed property belongs to the developer.

<sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

An archaeologist surveyed the proposed development area and no sites of heritage significance were identified in the direct vicinity of the study area. A small, fenced cemetery was identified. The cemetery measures approximately 10m x 20m in size and has 23 graves within it. The graveyard will be included into the proposed development and will not be destroyed.

The area is not environmentally sensitive, it is disturbed by previous development. The development must take place around the protected *Sclerocarya birrea* and *Boscia albitrunca* trees.

The proposed site is thus highly suitable for a development of this kind. Other alternative sites are therefore not feasible. Therefore application for exemption from having to assess alternative sites is herewith made.

(b) the type of activity to be undertaken;

This project entails the construction of a residential development. The size of the site will be approximately 18,2ha.

(c) the design or layout of the activity;

The project will consist of the following:

- 79 Residential 1 Erven
- 1 Residential 3 Erf
- 3 Public Open Space Erven
- 3 Business 1 Erven
- 1 Filling Station
- 1 Undetermined Erf
- Roads with a length of 2 016m

Engineering services like sewage, water supply and electricity will be installed.

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

No technology alternatives were identified.

(e) the operational aspects of the activity; and

Due to the extremely limited extent of the proposed activity, the impact upon the environment will be minimal. The surface area that will be covered on the ground is approximately 18,2ha.

(f) the option of not implementing the activity.

Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow.

**The Reader is referred to Appendix G (Assessment of Alternatives) for a description of the identified alternatives that have been investigated.**

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the Department may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

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

**3. ACTIVITY POSITION**

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

**Latitude (S):**

**Longitude (E):**

**Alternative:**

Alternative S1<sup>2</sup> (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

23°	04'	04,5"	27°	59'	54,0"
°	'	"	°	'	"
°	'	"	°	'	"

**In the case of linear activities:**

**Alternative:**

**Latitude (S):**

**Longitude (E):**

Alternative S1 (preferred or only route alternative)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

Alternative S2 (if any)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

<sup>2</sup> "Alternative S.." refer to site alternatives.

Alternative S3 (if any)

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

#### 4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

**Alternative:**

Alternative A1<sup>3</sup> (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

or,

for linear activities:

**Size of the activity:**

182 000m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

**Length of the activity:**

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

m
m
m

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

**Size of the site/servitude:**

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

182 000m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

<sup>3</sup> "Alternative A.." refer to activity, process, technology or other alternatives.  
LEDET BA Report, EIA 2014: Project Name: Housing Development – Tom Burke



## 5. SITE ACCESS

Does ready access to the site exist?

YES	
	m

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

Describe the type of access road planned:

N/A

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

## 6. SITE OR ROUTE PLAN

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

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - rivers;
  - the 1:100 year flood line (where available or where it is required by Department of Water Affairs);
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

**7. SITE PHOTOGRAPHS**

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

**8. FACILITY ILLUSTRATION**

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

**9. ACTIVITY MOTIVATION**

**9(a) Socio-economic value of the activity**

What is the expected capital value of the activity on completion?	R20 000 000-00
What is the expected yearly income that will be generated by or as a result of the activity?	R12 000 000-00
Will the activity contribute to service infrastructure?	<b>YES</b>
Is the activity a public amenity?	<b>YES</b>
How many new employment opportunities will be created in the development phase of the activity?	30
What is the expected value of the employment opportunities during the development phase?	R60 000-00
What percentage of this will accrue to previously disadvantaged individuals?	60%
How many permanent new employment opportunities will be created during the operational phase of the activity?	30
What is the expected current value of the employment opportunities during the first 10 years?	R2 000 000-00
What percentage of this will accrue to previously disadvantaged individuals?	60%

**9(b) Need and desirability of the activity**

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

<b>NEED:</b>		
i.	Was the relevant municipality involved in the application?	<b>YES</b>
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	<b>YES</b>
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:	

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<b>DESIRABILITY:</b>		
i.	<p>Does the proposed land use / development fit the surrounding area?</p> <p><i>Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow. In 2006 it had a population of 808 people.</i></p> <p><i>There are a number of activities going on, and developments planned close to and in Tom Burke. Tom Burke is the last settlement before the Groblersbrug border post and is situated only ± 7 km south thereof. Groblersbrug border post is one of the major border posts between South Africa and Botswana. Most goods and services for the north eastern part of Botswana leaves and enters South Africa through this border post. This border post also serves the western parts of Zimbabwe and Zambia. This border post is very busy and is able to handle heavy vehicles.</i></p> <p><i>There is also a strong farming community present in the Tom Burke area and cattle farming, game farming and especially irrigation farming is very prominent in this part of the municipal area.</i></p> <p><i>Activities in and around Tom Burke includes a traffic control centre with a weigh bridge situated on Portion 6 of the farm Welvaart 27 LQ. This facility is situated ± 500 meters west of the proposed housing development. At the border post is a truck inn, general dealer, overnight accommodation and fuel pumps. On Portion 6 of the farm Doornplaats is a caravan park. On Portion 3 of the farm Van Wyksfontein which is directly adjacent to the proposed housing development is the police station. On Portion 9 which is ± 200 meter south west of the proposed housing development is a guesthouse. On Portion 10 which is ± 100 meter south of the proposed housing development is the NTK cooperative. As mentioned on the application property is the Tom Burke post office and old filling station.</i></p> <p><i>This settlement plays an important role in serving the border post, the residents within Tom Burke, the farming community, and people from the northern cluster of the villages and Marnitz. Lacking in Tom Burke is proper residential and business facilities.</i></p>	YES
ii.	<p>Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?</p> <p><i>Tom Burke serfs approximately 15 000 people. This figure is based on the 2012 population statistics as is presented in the Lephalale Spatial Development Framework (SDF) and is now higher.</i></p> <p><i>In terms of the SDF Tom Burke is earmarked as a Local Service Point (LSP). LSP's is concentration points which provide centres where basic goods and services are located.</i></p> <p><i>The SDF indicates that approximately 6% of the Lephalale population resides in LSP's. It also indicates that the average population growth rate for the Lephalale municipal area is between 1.4% and 1.8%. Natural growth will therefore result in an increase in the population of Tom Burke.</i></p> <p><i>The Lephalale Integrated Development Plan (IDP) indicates that Lephalale has a unemployment figure of 22, 9% which is below the provincial average although in the rural areas it is more than 40%.</i></p>	YES

	<p>The closest health care facility is situated in Ga Seleka which is as indicated <math>\pm 15</math> kilometres south west of Tom Burke.</p> <p>The two predominant sectors of the economy is mining and retail trade with respective percentages of 27, 3% and 19, 5% of the total employment. This is followed by agriculture with 14%.</p> <p>The local economy is driven by a strong mining sector which contributes an enormous 71% to the total gross value added production per sector in the local economy.</p>		
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
v.	Will the proposed land use / development impact on the sense of place?		NO
vi.	Will the proposed land use / development set a precedent?		NO
vii.	Will any person's rights be affected by the proposed land use / development?		NO
viii.	Will the proposed land use / development compromise the "urban edge"?		NO
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

<b>BENEFITS:</b>			
i.	Will the land use / development have any benefits for society in general?	YES	
ii.	<p>Explain:</p> <p>Located in the Limpopo Province at Tom Burke (<math>\pm 600</math> meters west of the application property) is the Tom Burke solar PV plant which on completion will have a capacity of 66MW and will have the ability to add 122 GWh a year to the grid once fully operational.</p> <p>This will meet the energy needs of 38,000 homes and save 111,000 tons of CO<sub>2</sub> from being emitted each year.</p> <p>Enel Green Power has already started with the construction of this plant. This plant will create a number of temporary and permanent jobs. Obviously this development will create a need for temporary and permanent accommodation, business and other community facilities.</p> <p>Another major project namely the Moonlight Iron Ore Project is planned, <math>\pm 15</math> kilometers south of Tom Burke along the N11.</p> <p>In 2012 a 30 year mining right was granted by the Department of Minerals over the farms Moonlight, Julietta and Gouda Fontein. These farms covers an area of 53 km<sup>2</sup>.</p> <p>What makes this mine highly attractive is the vast high quality iron reserves on the mentioned farms and the fact that existing iron mines in South Africa is in decline. It is a well-known fact that the iron reserves in Thabazimbi is depleted and that the Thabazimbi iron mine is in the process of closing down.</p> <p>The Moonlight Iron mine will produce high quality direct reduction and blast furnace grade iron pellets. There is an increasing global demand for this product. South Africa's steel industry is a major employer</p>		

	<p>needing new cost effective iron ore supply.</p> <p>The Ga-Seleka community holds 3% equity in this mining project. The development of this mine holds a number of benefits for this community namely sustainable employment, training, industry development and expansion, taxes, royalties and other general social benefits.</p> <p>An environmental impact assessment (EIA) for the mine and concentrator related areas was completed and submitted to the Department of Economic Development Environment and Tourism. The EIA was approved in April 2013.</p> <p>Recent additional funds allows the company now to proceed with drilling, pilot process test work, mining designs and plans, process design and engineering, infrastructure commitments and overall project capital and operating cost estimates which will take ±18 months to conclude. Thereafter they can commence with the construction of the mine which is estimated to take 30 to 36 month. Thereafter the mine will be fully operational.</p> <p>Once fully operational the mine will employ ± 3600 people. At an average of 4 people per household, the accommodation need will be for 900 dwelling units and related facilities like businesses etcetera.</p> <p>The proposed housing development is close to the mine and will be ideally situated to provide in this need.</p> <p>Mr. Ryan Els planted crops on the proposed development site from 2004 till 2010. He planted tomatoes, onions, gems, potatoes, green peppers, patty's and marrows. They battled to be successful as the soil is sterile and they battled with diseases like curly stunt virus. The soil has a high concentration of lime and is very shallow, which makes farming very difficult, see letter in Appendix G.</p>	
iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES
iv.	<p>Explain:</p> <p>Clearly, once the PV plant and mine commences operating further jobs will be created directly in the area and indirectly through other industries which spring up around and support large industries such as these ones. Various support services such as medical, legal, auditing, retail, commercial, community, and governmental can be envisaged where the people who are drawn to these large industrial applications for work purposes need specific support services.</p> <p>Obviously the projects mentioned above will increase not only the demand for residential facilities but also for all other type of facilities including the facilities which the proposed housing development will offer.</p>	

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

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

Title of legislation, policy or guideline:	Administering authority:	Date:
Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998)	Department of Environmental Affairs	2014
Constitution of South Africa Act No. 108 of 1996	National & Provincial	18 December 1996
National Environmental Management: Biodiversity Act No.	National & Provincial	7 June 2004

10 of 2004		
Section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999)	SAHRA	1999

## 11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### 11(a) Solid waste management

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

YES	
-----	--

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

±50m <sup>3</sup>
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How will the construction solid waste be disposed of (describe)?

**Trucks / pickups will collect all the building rubble and it will be disposed of at the municipal waste disposal site. The rubble will be covered with a tarpaulin to prevent that any waste will be blown off from the vehicle. Light rubble which can be blown off vehicles will be placed in containers when it is transport.**

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

**Because of the remoteness of application property the Lephalale Municipality currently provides no refuse removal services although from discussions with the relevant officials at the municipality, the municipality is planning to institute such a service to the area. The closest refuse dumping site is the Groothoek dumping site in Lephalale town.**

**There are a number of private service providers specializing in the removal of solid waste. The applicant will contract such a company to remove the solid waste on a regular basis up to such a stage when the municipality is able to collect and remove the solid waste generated on site.**

**A letter was obtained from the Lephalale Municipality that the solid waste may be disposed at the Groothoek dumping site in Lephalale town, see Appendix G.**

Will the activity produce solid waste during its operational phase?

YES	
-----	--

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

±50m <sup>3</sup>
-------------------

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

**The solid waste will mainly consist of households and it will be collected in waste bins. The proposed development will not produce hazardous waste.**

**The temporary storage facility will be free from odour or emissions to prevent any annoyance to the surrounding area. The waste bins will be provided with lids and it will not be overfilled. The developer will make sure that the waste bins are always in a good condition.**

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

**Because of the remoteness of application property the Lephalale Municipality currently provides no refuse removal services although from discussions with the relevant officials at the municipality, the municipality is planning to institute such a service to the area. The closest refuse dumping site is the Groothoek dumping site in Lephalale town.**

**There are a number of private service providers specializing in the removal of solid waste. The applicant will contract such a company to remove the solid waste on a regular basis up to such a stage when the municipality is able to collect and remove the solid waste generated on site.**

**A letter was obtained from the Lephalale Municipality that the solid waste may be disposed at the Groothoek dumping site in Lephalale town, see Appendix G.**

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the department to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?  YES  NO  
 If yes, inform the department and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?  YES  NO  
 If yes, then the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

**11(b) Liquid effluent**

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?  YES  NO

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

Will the activity produce any effluent that will be treated and/or disposed of on site?  YES  NO

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

Will the activity produce effluent that will be treated and/or disposed of at another facility?  YES  NO

If yes, provide the particulars of the facility:

Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:	Cell:	
E-mail:	Fax:	

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

**The proposed development area has no municipal sewer point. It is proposed herewith that onsite sewage treatment be provided. Treated effluent will be discharged in to a retention dam which will be utilized for irrigation purposes in the development.**

**The internal sewer network will drain to the low point in the proposed development area where the proposed sewer pump station will be erected. The raw sewer will be pumped from the pump station to the onsite sewage treatment plant which will be erected next to an existing dam, see Sketch Plan in Appendix G.**

**The internal sewers in the proposed development will comply with the standards of the Local Municipal Authority with regard to domestic sewage outflow, but will not be handed over to the Local Municipal Authority on completion of the installations.**



The internal sewer network, including the onsite sewage treatment plant, will be the responsibility of the Section 21 Company to be established to maintain and operate the internal sewers.  
 The proposed development will produce approximately 88 200 litre sewer per day.  
 The Department of Water Affairs supports a close treatment system like a Lilliput System, see Appendix G.

**11(c) Emissions into the atmosphere**

Will the activity release emissions into the atmosphere?

	NO
--	----

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

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.  
 If no, describe the emissions in terms of type and concentration:

--

**11(d) Generation of noise**

Will the activity generate noise?

	NO
--	----

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

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

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

--

**12. WATER USE**

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

	Groundwater			
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

3 487 500 Litres
YES

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

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

**No significant impacts on groundwater resources and water users are expected if the underground fuel storage tank installations are constructed to specification. See Geotechnical and Geohydrological Report in Appendix D.**

**13. ENERGY EFFICIENCY**

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

**Electricity will be provided by Eskom who is the supply authority.**

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

**Electricity will be provided by Eskom who is the supply authority.**

## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

### Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.   
(e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.

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

YES	
-----	--

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

All specialist reports must be contained in Appendix D.

Property description/physical address:

**The proposed site is located on Portion 7 of the Farm Van Wyksfontein 3 LR at Tom Burke, Lephalale Municipal area.**

**The size of the site will be approximately 18,2ha.**

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

Town/district:

**Tom Burke**

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

**Agriculture**

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

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

YES	
-----	--

Must a building plan be submitted to the local authority?

YES	
-----	--

Locality map: An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:

- an indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

## 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat						
------	--	--	--	--	--	--

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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## 2. LOCATION IN LANDSCAPE

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

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

### 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	NO	YES NO	YES NO
Dolomite, sinkhole or doline areas	NO	YES NO	YES NO
Seasonally wet soils (often close to water bodies)	NO	YES NO	YES NO
Unstable rocky slopes or steep slopes with loose soil	NO	YES NO	YES NO
Dispersive soils (soils that dissolve in water)	NO	YES NO	YES NO
Soils with high clay content (clay fraction more than 40%)	NO	YES NO	YES NO
Any other unstable soil or geological feature	NO	YES NO	YES NO
An area sensitive to erosion	NO	YES NO	YES NO

A level 3 geotechnical investigation was conducted for the proposed development. See Geotechnical and Geohydrological Report in Appendix D.

Conclusions:

- The site is underlain by transported soil and meta-sediment of the Limpopo Mobile Belt on the valley floor above the flood limit of the Limpopo River.
- Two soil profiles have been identified on site:
  - Profile 1, Transported and meta sediments
  - Profile 2, Hardpan Calcrete
- Profile 1: The natural soil profile on site consist of a upper, dry, uniform reddish brown, loose to medium dense, intact, fine grained sand with silt, (TRANSPORTED / REWORKED) layer with roots, overlying a dry, uniform reddish brown, dense, intact, sand with silt (TRANSPORTED SOIL), interlayered with a dry, uniform reddish brown, dense intact, gravel in a matrix of fine grained sand and silt (COLLUVIUM). Underlying the transported soils is dry, pinkish brown spotted white, very dense, highly weathered gravel with a sandy matrix grading into a weathered medium strong to strong meta sediment with a calcrete capping in places. Excavatability below 1.2m is hard.
- Profile 2: The area is identifiable as the whitish to light grey areas on the aerial photo's. The profile consist of a dry grey-brown, speckled light grey, loose to medium dense gravelly sand with silt (WEATHERED CALCRETE) and topsoil with roots, overlying dry grey-brown, speckled light grey, medium dense sandy gravel with silt (WEATHERED CALCRETE), grading into HARDPAN CALCRETE, as encountered in Trial pit TBD 1. The TLB reached refusal in the hardpan calcrete at 0.5m below surface. Excavatability below 0.5m will be hard.
- The potential for collapse of side walls of deep excavations is moderate.
- No shallow groundwater conditions were encountered expected.

- Construction materials should be sourced off site.
- No Mining activities past or present will influence the planned structures.
- The geotechnical risk classification for the site is:
  - Profile 1 Class F2 due to hard excavatability below 1.2m.
  - Profile 2 Class F3 due to hard excavatability below 0.5m
- The NHRRC site Class designation for the three profiles are:
  - Profile 1 S
  - Profile 2 R
- Based on the geotechnical evaluation two land use areas have been defined:
- Land Use Area A covers the transported soils and weathered meta sedimentary bedrock areas as encountered in all the trial pits except trial pit TBD 1 (Profile 1) area and is classified as **DEVELOPABLE with minor precautions** due to the minor risk of collapse settlement of foundations and hard excavatability below 1.2m. The NHRRC Site class designation for this area is S and normal foundations with compaction of trenches below footing level is recommended.
- Land Use Area B covers the soil profile 2 area and is classified as **DEVELOPABLE with precautions**. The profile consists of a thin layer of topsoil and weathered calcrete underlain by hardpan calcrete. Excavatability will be hard below 0.5m. The NHRRC Site class designation for this area is R. Normal foundations are recommended. Surface calcrete is usually associated with local depressions where water tends to pond in high rainfall events. The natural drainage in the area is disrupted by the road south of the property and thus flooding risk is minimal
- **From a geotechnical perspective Land Use Area A and B is suitable for development. Land Use Area A is better suited for the installation of underground fuel storage tanks**

#### 4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

		Cultivated land		

An Ecological Study was done by a qualified ecologist. See Ecological Report in Appendix D.

Conclusion:

The conservation value and site sensitivity of the demarcated area is low. The demarcated area falls within a fragmented degraded area and is adjacent to an existing village.

The proposed development is supported under the condition that mitigation measures are adhering to.

The following is recommended:

- Protected trees should be left intact.
- Trees such as *Acacia galpinii*, *Schotia brachypetala*, *Adansonia digitata*, *Sclerocarya birrea* and *Acacia nigrescens* should be planted to mitigate the development and limit the limited visual impact.

## 5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area	√	5.22 School	
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential		5.24 Church	
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial <sup>AN</sup>		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
<b>5.7 Military or police base/station/compound</b>	√	5.28 Protected Area	
5.8 Spoil heap or slimes dam <sup>A</sup>		5.29 Sewage treatment plant <sup>A</sup>	
5.9 Light industrial		5.30 Train station or shunting yard <sup>N</sup>	
5.10 Heavy industrial <sup>AN</sup>		5.31 Railway line <sup>N</sup>	
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities		5.33 Airport <sup>N</sup>	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station <sup>H</sup>		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	
5.17 Plantation		5.38 Nature conservation area	
<b>5.18 Agriculture</b>	√	5.39 Mountain, koppie or ridge	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
5.21 Dam or Reservoir		5.42 Other land uses (describe)	

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

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

If YES, specify and explain:	
If NO, specify:	

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

If YES, specify and explain:	
If NO, specify:	

## 6. CULTURAL/HISTORICAL FEATURES

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

YES

If YES, explain:

An Archaeologist was appointed to do the necessary Heritage Impact Assessment. See Appendix D.

A small, fenced cemetery was identified. The cemetery measures approximately 10m x 20m in size and has 23 graves within it. The graves were all orientated from west to east and they were placed in two unequal lines next to each other. Nine of the graves have formal granite dressings and headstones and the rest of the graves have brick and cement frames as dressings, with cement or sandstone headstones. The graves varied in age from between the 1920's up to the 1970's. The cemetery was not maintained recently and some of the graves are damaged.

This site is a small, fenced cemetery with 23 graves. It also includes the grave of Tom Burke after which the town was named. The developer has indicated that the development will be around the cemetery and that it would not be affected by the development. The following general recommendations are advisable for identified graves and cemeteries:

It is recommended that the area where the graves are located be avoided during development.

If the developer decides to plan the development around the identified graves and leave them undisturbed, adequate arrangements should be made to protect the graves from the impact of the development. These should include the following:

- It is important to understand that the identified graves could have significant heritage value to the relevant families (if identified) and should therefore be preserved.
- The relevant families should be identified (if possible) and should be informed about the proposed activities which could possibly affect their graves.
- It is recommended that the identified graves should be clearly demarcated with barrier tape during the entire duration of the project and especially during earth-moving/bush clearing activities. A 10m buffer zone must be allowed around the graves.



- A watching brief performed by a suitable qualified person is recommended during the bush clearing and construction phases of the project. This person should see to it that the graves are safe and protected during these phases.
  - It is advisable to fence the graves to prevent future damage. A buffer zone of at least 10m around the graves is recommended.
  - The proposed earth-moving/bush clearing activities should be altered and should be planned around the graves in order to protect it from any damage or other negative impacts.
  - Bush clearing crews should be made aware of the presence of the graves in order to avoid damaging it during the earth-moving activities.
  - The planning team should ensure that access to the graves by the next of kin is not limited in any way. A management plan should be set up to ensure the future safety, access and maintenance of the graves alongside the proposed development.
- An old farmhouse was identified. The farmhouse is square and measures approximately 20m x 20m in size. The house has a pitched corrugated roof and metal window and door frames. An extended veranda is situated on the western side of the house. The house has external water and electrical systems and this could indicate that the house is most probably older than 60 years old.
- The farmhouse is currently being occupied. From the architectural style and the building methods employed during the construction of the house it is believed that the house is most probably older than 60 years. Structures more than 60 years old are protected under Section 34 of the National Heritage Resources Act 25 of 1999, which states that “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority...”.
- It is recommended to apply for a permit for destruction from the Limpopo Heritage Resources Agency (LIHRA). LIHRA will stipulate the requirements for further mitigation work, before the permit of destruction will be issued. Only after the permit for destruction has been obtained can the destruction of the structure continue.

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

Will any building or structure older than 60 years be affected in any way?	<b>YES</b>	
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	<b>YES</b>	

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

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

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
  - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  - (v) the municipality which has jurisdiction in the area;
  - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  - (vii) any other party as required by the department;
- (c) placing an advertisement in—
  - (i) one local newspaper; or
  - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—
  - (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.

## **2. CONTENT OF ADVERTISEMENTS AND NOTICES**

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
  - (i) that the application has been submitted to the department in terms of these Regulations, as the case may be;
  - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
  - (iii) the nature and location of the activity to which the application relates;
  - (iv) where further information on the application or activity can be obtained; and
  - (v) the manner in which and the person to whom representations in respect of the application may be made.

## **3. PLACEMENT OF ADVERTISEMENTS AND NOTICES**

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

## **4. DETERMINATION OF APPROPRIATE MEASURES**

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

## **5. COMMENTS AND RESPONSE REPORT**

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in

these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

## 6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

Name of Authority informed:	Comments received (Yes or No)
Department of Public Works Private Bag X9469 POLOKWANE 0700 Ms. Pinkie Harricks	No
The Chief Director Department of Water Affairs WQM Section Private Bag X9506 POLOKWANE 0700 Ms. Magdeline M. Msimanga	No
The Manager Roads Agency Limpopo Private Bag X9554 POLOKWANE 0700 Ms. S.P. Tshivhase	No
Department of Sports, Arts and Culture Postnet Suite 21 Private Bag X9307 POLOKWANE 0700 Mr. Donald Lithole	No

Lephalale Local Municipality The Municipal Manager Private Bag X136 LEPHALALE 0555	No
Ward Councillor – Tom Burke Area Private Bag X136 LEPHALALE 0555	No
Waterberg District Municipality Private Bag X1018 MODIMOLLE 0510	No
SAPS – Tom Burke Private Bag X510 TOM BURKE 0621 Captain Mabote	No
The Director Department of Agriculture Land Use & Soil Management P.O. Box 3620 POLOKWANE 0700 Mr. Foletji Mahlakoane	No

## 7. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

Has any comment been received from stakeholders?

**NO**

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

--

## SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

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

List the main issues raised by interested and affected parties.

Hotane, Snyman & Taljaard Incorporated and VKB Agriculture (Pty) Ltd have registered as Interested and Affected Parties.

Mr. Gerhard Vos has originally registered as Interested and Affected Party but he has withdrawn his objection, see Appendix E.

See Comments & Response Report in Appendix E.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

### 2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

#### Alternative (preferred alternative)

##### PLANNING AND DESIGN PHASE

###### **Direct impacts:**

- The destruction of natural vegetation during initial investigations, due to induced vehicular movement e.g. surveyors vehicles etc.

*Existing tracks/roads should be used when accessing the site for planning purposes. Sampling rather than removal of existing plant material should take place (and then only if essential).*

- Damage to flora due to site clearing

*Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Vehicular access should be restricted to essential areas only. Grass occurring on and near construction sites*

*should be retained where possible, to assist in retarding erosion. During excavations, the area that is disturbed should be kept as small as possible, so as to minimise disturbances to the environment.*

**Indirect impacts:**

- Soil erosion due to vegetation clearance

*As much natural vegetation should be retained as is possible (especially natural occurring trees).*

- Unsocial activities at construction site (e.g. crime)

*Appointed contractors should be required to implement security measures at construction camps/material laydown areas. Security gate control measures should be implemented in order that only labourers and authorised persons obtain access to the construction camps/material laydown areas.*

- Construction traffic and access

*Existing tracks/roads should be used when accessing the site.*

- Impact of construction noise on adjacent residential areas

*Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to between 06h00 and 17h00 (Mondays to Saturdays only). Adjacent residents shall be informed of unusually noisy activities that will be undertaken. Works instructions shall be issued regarding the minimisation of noise to all workers (especially those using noisy equipment).*

- Hunting and capture of birds and other fauna by construction workers

*Capture or snaring of birds or other fauna must be strictly prohibited on site - especially with regards to contractors employees.*

- Proliferation of alien plant species during and after construction

*Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.*

- Impact of nuisances resulting from construction (e.g. dust, smoke & noise)

*Damping down of unsurfaced roads should take place. Trucks should avoid travelling unnecessarily through residential areas or private land.*

- High positive expectations regarding employment opportunities

*Local employment and procurement should receive priority when embarking upon planning and construction*

activities.

**Cumulative impacts:**

- Visual impact of construction activities

*Retain as many existing trees as possible to screen construction works. Change of land use from natural (disturbed) veld to a construction site will occur. This must however be seen in the context of the fairly short duration of the construction phase. Construction activities should be kept clustered on site at all times.*

- Temporary employment creation

*Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.*

**CONSTRUCTION PHASE**

**Direct impacts:**

- Construction traffic and access

*Damping down of unsurfaced roads should take place. Trucks should avoid travelling unnecessarily through private land.*

- Construction impacts on soils (upsetting of soil horizons through groundworks and/or compaction by vehicles)

*Selective stripping of topsoil, subsoil and overburden should take place. Stockpiling of removed earth (separately) should take place and be returned for backfilling in the correct soil horizon order. In all construction areas (e.g. material laydown areas), topsoil and subsoils should be protected from contamination/pollution (e.g. by fuel etc.). Stockpiling of removed earth should not occur in drainage lines or impede surface water runoff.*

- Pollution of groundwater

*Controlled use and or storage of all fuels and chemicals during construction is advised. Due to very limited amounts of the aforementioned substances being used during construction, leaching thereof into the underground water is highly unlikely. Adequate fuel containment facilities should however be used. Adequate sanitary facilities and ablutions must be provided for construction workers.*

- Soil erosion due to vegetation clearance

*When soil is cleared of vegetation, management techniques to prevent water erosion should be employed (e.g. reduction of water velocity and the diversion of surface water runoff downslope).*

- Damage to flora due to site clearing

*Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Vehicular access should be restricted to essential areas only. Grass occurring on and near construction sites should be retained where possible, to assist in retarding erosion. During excavations, the area that is disturbed should be kept as small as possible, so as to minimise disturbances to the environment.*



**Indirect impacts:**

- Potential injury to construction workers

*Implementation of safety measures and work procedures and first aid facilities should be required of contractors.*

- Unsocial activities at construction site (e.g. crime)

*Appointed contractors should be required to implement security measures at construction camps/material laydown areas. Security gate control measures should be implemented in order that only labourers and authorised persons obtain access to the construction camps/material laydown areas.*

- Impact of construction noise on adjacent residential areas

*Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to between 06h00 and 17h00 (Mondays to Saturdays only).*

- Plant collection, utilising of trees for firewood, etc. by construction workers

*Effective site control and monitoring by site engineer should take place. No fires should be allowed on site except in designated areas. Access to the site should be controlled - local disadvantaged residents should be allowed to collect firewood (only where bush is to be cleared).*

- Hunting and capture of birds and other fauna by construction workers

*Capture or snaring of birds or other fauna must be strictly prohibited on site - especially with regards to contractors employees.*

- Visual impact of construction activities

*Retain as many existing trees as possible to screen construction works. Construction activities should be kept clustered on site at all times.*

- Impact of nuisances resulting from construction (e.g. dust, smoke & noise)

*Damping down of graded roads and cleared areas should take place during construction. As much natural vegetation should be retained as is possible (especially natural occurring trees). As a mitigatory measure, construction should be limited to normal working hours. Construction shall be restricted to limited working hours (06h00 to 17h00 from Monday to Saturdays only). No work shall be conducted on Sundays. Adjacent residents shall be informed of unusually noisy activities that will be undertaken. Works instructions shall be issued regarding the minimisation of noise to all workers (especially those using noisy equipment).*

- Uncovering of heritage or archaeological sites/resources/graves

*In the case of an archaeological/heritage resources “find”, all excavation work should be halted and a heritage resources practitioner should be consulted (or alternatively the nearest SAHRA office). If found, graves shall be relocated in accordance with the stipulations of the South African Heritage Resources Act and its relevant regulations pertaining to graves.*

**Cumulative impacts:**

- Replacement of fauna due to site clearing

*Translocation of wild animals noted during construction shall be undertaken by a suitably qualified contractor. This shall only be done after the required permits for translocation have been obtained from LEDET.*

- Proliferation of alien plant species during and after construction

*Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.*

- High positive expectations regarding employment opportunities

*Local employment and procurement should receive priority when embarking upon planning and construction activities. Contractors should be required to make use of local labour and suppliers where possible.*

- Temporary employment creation

*Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.*

**OPERATIONAL PHASE**

**Direct impacts:**

- Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape.

*Change of land use from relatively natural veld to a suburban environment will occur. This must however be seen in the context of the existing developments located in the area. The potential of the proposed development to impact negatively on the character of the area is anticipated to be minimal, due to the already developed nature of the surrounding areas.*

- Generation of waste by the proposed development

*The proposed development is located in Tom Burke. The proposed development area has no municipal sewer point. It is proposed herewith that onsite sewage treatment be provided.*

- Leakage from underground fuel tanks resulting in pollution of land (soil) and underground water

*All containment structures for polluted water should be lined to prevent seepage and pollution of*

groundwater.

*Daily reconciliation of the volumes of petroleum products should be done to ensure early detection of a possible leak.*

*Leakage detectors and odour detectors should be installed. Checking for product losses should take place regularly. Any losses should be reported to the relevant oil company and relevant authorities within 14 days and the necessary remedial action taken.*

**Indirect impacts:**

- Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape

*The development of a residential project will serve to lessen the overall negative impact on the environment should the buildings be designed so that it blends in with the prevailing architectural character of the area.*

**Cumulative impacts:**

- Development of the proposed residential project will impact positively on the local economy and land values  
*Change of land use from (relatively) natural veldt to a suburban environment will occur. The proposed development will create additional jobs for the local people.*

**DECOMMISSIONING**

**Direct impacts:**

- Should the proposed site be decommissioned then a new site has to be identified for the development of the residential project.

*Should the proposed site be decommissioned then a new site has to be identified for the development of the residential project. This will put more pressure to provide housing in the community.*

*Tom Burke is one of a number of settlements in the Lephalale municipal area with huge potential to grow. In 2006 it had a population of 808 people.*

*There are a number of activities going on, and developments planned close to and in Tom Burke. Tom Burke is the last settlement before the Groblersbrug border post and is situated only  $\pm 7$  km south thereof. Groblersbrug border post is one of the major border posts between South Africa and Botswana. Most goods and services for the north eastern part of Botswana leaves and enters South Africa through this border post. This border post also serves the western parts of Zimbabwe and Zambia. This border post is very busy and is able to handle heavy vehicles.*

**Indirect impacts:**

- People will lose their jobs should decommissioning take place.

*People will lose their jobs should decommissioning take place. This can have an impact on the crime in the area. Crime can increase due to job losses.*

**Cumulative impacts:**

- Negative impact on local economy

*Change of land use from (relatively) natural veldt to a suburban environment will occur. The proposed development will contribute towards housing in the area.*

**3. ENVIRONMENTAL IMPACT STATEMENT**

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Alternative A (preferred alternative)**

Ground clearance will take place during the construction of the residential project. Protected trees (*Sclerocarya birrea* and *Boscia albitrunca*) and other indigenous shrubs and trees should be left intact.

Indigenous trees should be planted along the planned streets and open species to limit the visual impact and to the greening policy of the Province. The impact will not be significant after mitigation measures are implemented as set out in the report.

The proposed area is big enough to construct a residential project. This type of development will not have a significant impact on the environment after the mitigation measures are put in place.

**No-go alternative (compulsory)**

The demand for housing will not be resolved should the residential project not be constructed.

**Alternative B**

**Alternative C**

**For more alternatives please continue as alternative D, E, etc.**

## SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES

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

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

- **The mitigation measures stipulated in this report should be conveyed to contractors and persons responsible for construction.**
- **The mitigation section should be issued as a stand along document to all parties involved with the planning, implementation and operation of the proposed project.**
- **The applicant must monitor that all parties involved with the development of the institution are complying with the mitigation measures put out in this Basic Assessment Report.**
- **There should also be penalties for non-compliance.**

Is an EMP<sub>r</sub> attached?

YES

The EMP<sub>r</sub> must be attached as Appendix F.

## **SECTION F: APPENDIXES**

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

- Assessment of Alternatives
- Letter from Mr Els
- Letter from Lephalale Municipality
- Sewer Plan
- Letters from Department of Water Affairs (DWA)

## **SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER**

I, **Anton von Well** declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

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**Signature of the Environmental Assessment Practitioner:**

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**Name of company:**

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**Date:**