

**FINAL BASIC ASSESSMENT REPORT FOR THE PROPOSED SHOPPING
COMPLEX, OFFICES AND FILLING STATION ON Erf 300, BOCHUM A,
EXTENSION 3 OF THE FARM BOCHUM NO.178 -LS, SENWABARWANA LOCAL
MUNICIPALITY, LIMPOPO PROVINCE**

**LEDET REF NO:1124456
MOLSHE REF NO:004 SENWABARWANA MALL**

Prepared for



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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:

1124456

NEAS Reference Number:

(For official use only)

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

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

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

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

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

SECTION A: ACTIVITY INFORMATION

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

YES

NO

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 detail¹:

The proposed development is for a shopping complex, offices and a filling station on Erf 300, Bochum A, Extension 3 of the farm Bochum No.178 -LS in Senwabarwana, Limpopo Province. The proposed development is under the jurisdiction of Blouberg Local Municipality of the Capricorn District Municipality in Senwabarwana formerly known as Bochum. This development entails the transformation of a recreational land (old Senwabarwana sport field) into a retail /commercial land use.

The total area of the proposed shopping complex, offices and a filling station is just less than 20 ha. and is approximately 8.2 ha in extent This development footprint includes the following (A shopping centre, taxi rank, a car dealer, filling station, office park and informal trading stalls). Infrastructure for the of water and electricity as well as waste water treatment will be implemented as part of the development. Storm water infrastructures in the form of surface run -off and some sub surface draining will be implemented on site.

To summarise, the proposed development will entail the following activities:

- An access road from the main road (road D1468)
- Parking area
- Shopping complex
- A Filing Station

The filling station will comprise of two (2) types of fuel such as petroleum (unleaded and leaded) and diesel. The size of the tanks combined is 83 cubic meters and is less than 500 cubic meters.

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

- A car dealer shop
- Office Park
- The implementation of onsite waste water treatment
- The abstraction of ground water for water provision (Store water in portable tanks)
- The implementation of onsite Solar system as primary source of energy, and
- Emergency Generators



Fig1: Locality Map for the proposed Shopping Complex and Associated Infrastructures

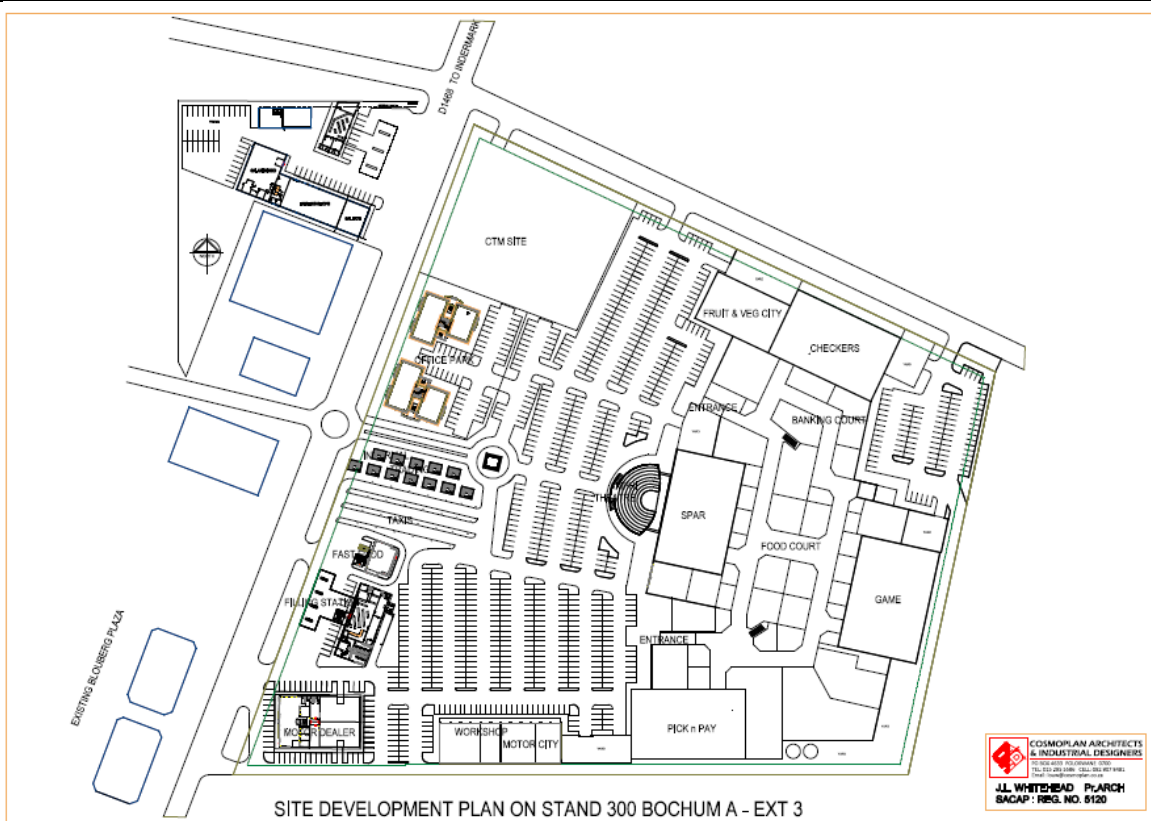


Fig2 Site Plan for the proposed Shopping Complex and Associated Infrastructures

Activities listed in terms of the Environmental Impact Assessment (EIA) Regulations, 2017, promulgated in terms of the NEMA that are triggered by the proposed activity are as follows:

Activity 14 of Listing Notice 1: The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.

Activity 27 of Listing Notice 1: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—

- (i) the undertaking of a linear activity; or
- (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

Reason for inclusion of above Activities

Activity 14 of Listing Notice 1: The development of the filling station will involve the storage of fuel of that capacity for future distribution. Fuel is considered as a dangerous good and therefore triggers this listed activity. The filling station will comprise of two (2) types of fuel such as petroleum (unleaded and leaded) and diesel. The size of the tanks combined is 83 cubic meters and is less than 500 cubic meters.

Activity 27 of Listing Notice 1: Indigenous vegetation is “vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding ten years”. The proposed development will inevitably result in the clearance of more than 1 hectare of indigenous vegetation (as per definition) . The total area of the proposed shopping complex, offices and a filling station is approximately 8.2 ha in extent This development footprint includes the following (A shopping centre, taxi rank, a car dealer, filling station, office park and informal trading stalls)

Reason for exclusion of the following activities

Activity 9 and 10 of Listing Activity 1: The intention of the developer is to abstract water (approximately 200 00L) and store it in portable tanks. The borehole water will be purified on site and be used as drinkable water. The waste water will be treated on site and the effluent will be discharged into the municipal sewer pipeline.

This activity is triggered in the National Water Act, 1998 (Act No. 36 of 1998) (NWA) under section 21

Water uses identified in terms of Section 21 of the NWA are as follows:

- a) taking water from a water resource;
- b) storing water;
- c) impeding or diverting the flow of water in a watercourse;
- d) engaging in a stream flow reduction activity contemplated in Section 36 of the Act;
- e) engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);
- f) discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;
- g) disposing of waste in a manner which may detrimentally impact on a water resource;
- h) disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process;
- i) altering the bed, banks, course or characteristics of a watercourse;

- j) removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and
- k) using water for recreational purposes.

NB: Therefore, this will be applied with the Department of Water and Sanitation

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

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

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

Location Alternatives

Rheinland Investments (PTY) Ltd (the applicant) referred hereafter as Rheinland, is a global oil fuel retail company, that operates across South Africa and neighboring countries. Since inception in 2008 Global Oil has rapidly grown to over 100 retail sites across Nine Provinces. This Brand, Global Oil has raised the bar in fuel retailing and convenience stores across South Africa.

Rheinland already identified the need for a shopping complex and associated infrastructure in and around the Town Senwabrwana. This area’s population increase exceptionally fast and the desire for more shops is needed;

- ✓ The location of the subject property is considered ideal for the proposed development as it is located adjacent to the other local shops and a police station on road D1468. The site is forms part the economical

hub and therefore no location alternatives are considered other than the no-go alternative discussed at length under the impact assessment section of the report;

- ✓ The activity proposed for this site is considered the ideal activity as it will contribute to rural upliftment and services infrastructure within the area. Therefore, the proposed activity is considered the preferred alternative other than the no-go alternative that is considered in this report;
- ✓ The design and layout of the activity is in the concrete phase. It should however be noted that the existing layout is considered the most appropriate to ensure exposure of the proposed development to people travelling past the site. The access point to the site is also regarded as a fixed point and the layout was also designed around the access position. Therefore, existing layout of the activity is considered the most appropriate layout and this report only considers the no-go alternative;
- ✓ In terms of technological alternatives, the filling station will adhere to strict design measures as prescribed by the relevant filling station company's head office. No technological alternative will thus be considered other than the no-go alternative;
- ✓ The activity proposed for the site is considered the ideal activity. There can be minor changes to the tenants for the retail facilities, but in general no operational alternatives will be considered for this study; and
- ✓ The option of not implementing this activity or more generally referred to the no-go alternative will be considered in detail in this report. It is assumed that the no-go alternative in this case will be entail that no formal development will take place on site.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek 94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Latitude (S):

Longitude (E):

Alternative:

Alternative S1² (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

23°	'17	00"67	29°	'08	23"96

In the case of linear activities:

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

Alternative A2 (if any)
Alternative A3 (if any)



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)



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:



The proposed development will gain access to the site from Indermark Road D1468. Access will be gained at these intersections. The traffic circles will be designed with 40m diameters and two circulating lanes. A traffic impact study was not conducted for the proposed site the area is already congested and no space to expand the road.

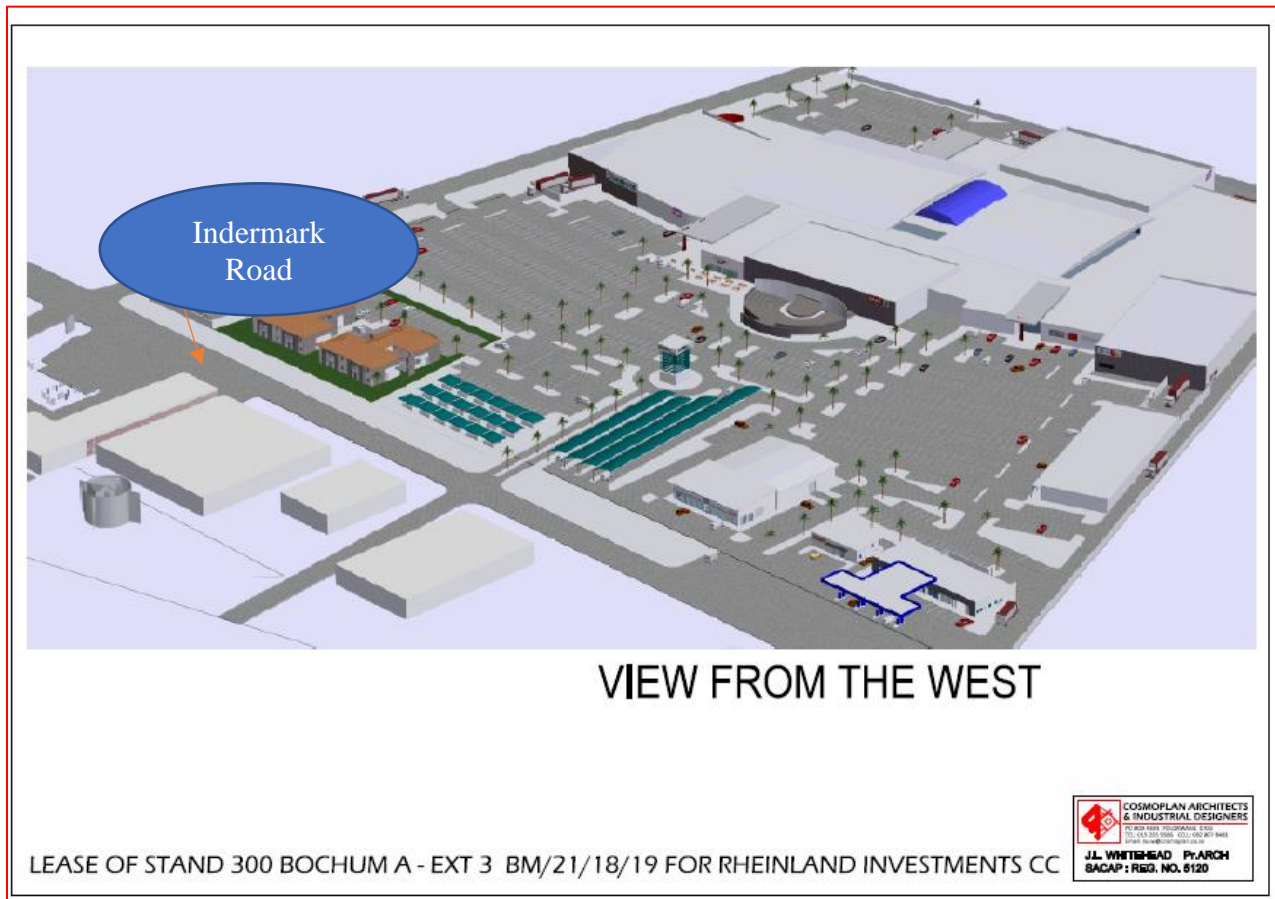


Fig 3. Discription of Indermark Road

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 REFER TO APPENDIX A

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 REFER TO APPENDIX B

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 REFER TO APPENDIX C

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.

11. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 50 00000
What is the expected yearly income that will be generated by or as a result of the activity?	R 20 00000
Will the activity contribute to service infrastructure?	YES
Is the activity a public amenity?	YES
How many new employment opportunities will be created in the development phase of the activity?	±500
What is the expected value of the employment opportunities during the development phase?	R 2 000000
What percentage of this will accrue to previously disadvantaged individuals?	20%
How many permanent new employment opportunities will be created during the operational phase of the activity?	±300
What is the expected current value of the employment opportunities during the first 10 years?	R4 000000
What percentage of this will accrue to previously disadvantaged individuals?	30%

9(b) Need and desirability of the activity

The poverty level at Blouberg are very high, and this increased by the number of social factors around the area. A large number of house - holds survive with an annual income that is under R 18 000.00. A large section of the population within Blouberg is found in Mamadi, Makgato, My Darling and the R293 Towns like Indermark ,Marobjane ,Machaba and Senwabarwana. One of the biggest problems is the migrate labour system, it was found that in most house - holds men and women had to go to making a living elsewhere, because Senwabarwana had limited shopping complex and employment opportunities. Senwabarwana is a town for the surrounding villages. There are more than ten (10) village that requires a good place to buy their basic need and the shopping complex and associated infrastructure will respond well to the increase in demands of an expanding population. This proposed development is in line with the Limpopo Spatial Rationale in a sense that, Senwabarwana has been identified as one of the provincial growths point due to its strategic location. From the development point of view, the mall is going to provide amenities much needed in the area. This in return will improve the lives of people in and around areas.

The proposed shopping complex and associate infrastructures will be the primary source market characterised by relatively large economically active market segment of which the majority is employed, reflecting moderate dependency.

The proposed project is necessary to improve the aesthetics of the surround area as well as the current open space in the vicinity. It allows for business opportunity to the surrounding business people, as the Town Polokwane is approximately 100km and is very expensive for the local communities.

According to the Blouberg Municipality Integrated Development Plan there is a need for employment opportunities, recreation and crime prevention within the adjacent communities. It is expected that the proposed development will contribute to the mentioned needs of the local communities to varying extents. Furthermore, should the municipality meet the needs of RDP housing within the area the need for a smaller retail facility and filling station will increase. It should however be noted that the location of this site is considered suitable for a large shopping centre due its close proximity to retail facilities

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

DESIRABILITY:			
i.	Does the proposed land use / development fit the surrounding area?	YES	
ii.	Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?	YES	
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
	Take note that the study area is not pristine. Large sections of the natural vegetation are removed by the local communities. They use the old sport ground to play soccer and a dumping area. The loose soil in the exposed areas are often washed off during the rainy season and this causes erosion. The proposed development will assist with the coverage of the exposed areas. Temporary and permanent storm water management measures will be implemented during the construction and operational phases of the development and it will therefore assist with the prevention of erosion and it will also promote the purification and distribution of the storm water across the site.		
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.		

BENEFITS:			
i.	Will the land use / development have any benefits for society in general?	YES	
ii.	Explain:		
	The proposed shopping complex and associate infrastructure will upgrade services and roads (if the local authority agree to supply services). Increase in local authority rates and taxes (±R 800 000.00/month) and this increase will assist with the generation of funds for upgrading/maintenance works on services and infrastructure. Will upgrade of the existing taxi rank, which is also currently regarded as a security risk.		

	<p>Linkage of the taxi rank with social and shopping facilities providing almost a one-stop shop facility to visit just before or after work. This will enable the community to travel long distance for shopping.</p> <p>The creation of a gateway into Senwabarwana. The proposed development will be a mere extension of the existing urban precinct. This will prevent urban sprawl and optimum utilization of services, which is already available on the study area.</p> <p>According to the local communities that reside just east of the study area, there is a big need for jobs in the area. They indicated that they will support the proposed development if it will create jobs. A large number of temporary and permanent jobs will be created during the construction and operational phases of the project. Improved standards of living of people that received jobs, skills training; increase in the level of economic activity and income distribution.</p> <p>Supporting the Rural Development objectives thereby help stem rural-urban migration, especially to major cities in search of employment or economic sustenance; and the provision of social facilities (i.e. restaurants, shops, office parks and a large variety of shops that are not present in community shopping centers.</p>			
iii.	<table border="1"> <tr> <td>Will the land use / development have any benefits for the local communities where it will be located?</td> <td>YES</td> <td></td> </tr> </table>	Will the land use / development have any benefits for the local communities where it will be located?	YES	
Will the land use / development have any benefits for the local communities where it will be located?	YES			
iv.	<p>Explain:</p> <p>The proposed development will not only benefit the general public, but will largely benefit the local community. People from the local community need to travel over long distances to gain access to shopping facilities to provide in their essential needs. It is expected that the proposed development will reduce the travelling costs of local communities as a result of in an increase in accessibility to retail facilities for local communities. It is further expected that the new development will create a significant amount of new temporary and permanent employment opportunities.</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:** _____

National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended	An Environmental Authorisation is currently being lodged with the Department of Economic Development Environmental and Tourism (LEDET)	December 2017
National Water Act 36 of 1998	A General Authorisation is currently being lodge with the Department of Water and Sanitation	1998
National Environmental Management: Air Quality Act 39 of 2004	Provincial Department	2004
National Environmental Management: Waste Act 59 of 2008	Provincial Department	2008
National Environmental Management: Protected Areas Act 57 of 2003	Provincial Department	2003
National Environmental Management: Biodiversity Act 10 of 2004	Provincial Department	2004
National Heritage Resources Act 25 of 1999	National and Provincial Department	1999
Limpopo Conservation Plan Version 2	LEDET	2013
Limpopo Environmental Management Act 7 of 2003	LEDET	2003
Blouberg Local Municipality: Spatial Planning and land use management bylaw	Blouberg Municipality	2016

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	
60 m ³	

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

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

All waste generated during the construction phase will remain the responsibility of the main contractor throughout. An area, clearly demarcated, must be allocated on site where all waste can be stored temporarily until removal thereof is possible. The area will be clearly marked by means of signage to prevent injury of people. The solid waste should be hauled away weekly to avoid the buildup of waste to dangerous heights. All inert building rubble will be utilized on site for filling purposes. All other solid waste will be disposed of at a registered landfill site for which prior agreement should be obtained from the local municipality.

The contractor should ensure that waste bins with anti-tampering lids are provided at strategic locations on the site and all contractors personnel must be made aware of the waste disposal requirements. These bins should be cleaned at least once a week or more if the need arises. The area demarcated for construction waste should be located in such a way that it is not within the natural drainage lines and that it does not result in visual pollution of the area. Any building rubble that will be stored for use as filling materials should be stored within the contractor's yard and should not be stored in heaps higher than 500 millimeters.

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

All waste generated during the construction phase will be disposed of at a suitably registered landfill site after prior agreement has been obtained from the local municipality, in this case the Blouberg Municipality. No waste will be dumped illegally within the surrounding area.

Will the activity produce solid waste during its operational phase?
If yes, what estimated quantity will be produced per month?

YES	
	30 m ³

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

The solid waste generated during the operational phase will be disposed of at a suitably registered landfill site as per agreement with the Blouberg Municipality. The developer shall accept full responsibility for such disposal and shall ensure that collection of waste takes place at least once a week if the municipality is not able to provide such a service at the location of the study area.

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

In the case that the municipality will not be the service provider for the collection and disposal of waste the developer will adopt a waste management plan which will prescribe that the solid waste is removed at regular intervals scheduled for at least once a week. Any building rubble generated during operational phase of the proposed facilities shall be removed by the person responsible for the building i.e. the builder. Such a person will provide proof of a registered landfill site at which he/ she will dispose solid waste. The collection of refuse will be done by a registered waste removal company as per agreement.

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?

m³

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

As mentioned, the developer is planning to install an environmentally friendly on-site sewage treatment system (i.e. a package treatment plant) and dispose some of the treated waste in the municipal drainage system. A Section 21 WULA for the disposal of the treated effluent and for the irrigation of the treated water will be submitted to DWS for consideration. The proposed system will comply with the requirements and standards of DWS.

If yes, provide the particulars of the facility:

Facility name:	Senwabarwana Water Treatment Plant		
Contact person:	Mr Klass Madisha		
Postal address:	P O Box 4100, Polokwane		
Postal code:	0700		
Telephone:		Cell:	071 687 7023
E-mail:	madishak@cdm.org.za	Fax:	

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

The treated effluent will be used for the irrigation of the Landscaped Areas and if possible such treated water will also be re- used for the flushing of the toilets.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

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

The emissions will be normal carbon dioxide emissions associated with the use of vehicles and preparation of food. The emission levels should not increase dramatically if at all. It is however recommended that the emissions do not exceed 380 ppm.

11(d) Generation of noise

Will the activity generate noise?

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

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

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

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

The activity will not generate excessive noise and noise levels will not be higher than the normal noise level for the area. The noise levels will also be limited to certain periods due to the residential nature of the area within the constructed area. The activity will therefore not result in disrupting noise levels other than the normal noise that occurs currently. Noise will mainly be generated by construction activities during the construction phase. Construction will not proceed before 7:00 in the mornings or after 17:00 in the evenings. The noise level during the construction phase should not exceed 75 dBA and during the operational phase noise levels should not exceed 65 dBA. The major noise generated during the operational phase will be due to air conditioning systems to keep the interior of the shopping facilities cool.

12. WATER USE

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

municipal	water board	Groundwater <input checked="" type="checkbox"/>	river, stream, dam or lake	other	the activity will not use water
-----------	-------------	--	-------------------------------	-------	---------------------------------

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:

20 0000 Litres
YES <input type="checkbox"/>

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.

The development will use borehole water for domestic purposes. Reneilwe Soil Lab supplied the required geo-hydrological inputs and confirmed that there will be enough water to provide in the needs of the shopping center and associated infrastructures.

The potential for exploiting groundwater varies dramatically throughout the study area and is determined mainly by the specific lithologies underlying each terrain. Higher groundwater potential (yield and storage) is found in unconsolidated sand and gravel deposits associated with the Brak River drainage which in turn provides enhanced recharge potential towards the deeper lying fractured aquifers.

In the sedimentary rocks of the Waterberg and Soutpansberg Groups, higher groundwater potential is associated with dolerite contact zones. The groundwater potential in the metamorphic and associated rocks is generally determined by the grade of metamorphism. Rocks subjected to higher grade of metamorphism typically display a resistance to weathering of fractures. The depth to groundwater is generally greater in the sandstones in the west than in the metamorphic rocks. This may be controlled by contrasting depth of fracturing and weathering in the two terrains and have a bearing on the pollution potential. Where they could be measured, depths to water levels were found to range between 10m and 17m.

Overall, groundwater flows away from the Blouberg and Waterberg sandstone plateau and the higher terrain of the gneisses in a northerly direction, coinciding with the local surface drainage.

The proposed site is very dry so do not expect underground water table within 20m from the natural ground level. There are no streams and rivers within Bochum area. Seepage test was not done because of the hard rock we encountered on site.

It will be necessary to apply for a Section 21 (a) b and for water-use license for the abstraction of water for industrial purposes, storage of water, discharging of waste water into sewage system and using water for recreational purposes.



Fig 4 : Proposed storage tanks on site



Fig 5: Proposed water purification system



Fig6: Proposed Containerised Sewer Treatment Plant

13. ENERGY EFFICIENCY

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

The developer is intending to install the alternative of using solar panels as an alternative/ supporting energy source. The solar power will be used for the parking lights and some parts of the shopping complex. Eskom electricity will be used as the major source of electricity by the associate's infrastructures on site Compliance measures will form part of the design as required by SANS 10400-XA of 2011 and SANS 204 of 2011.

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

The proposed solar panels will be installed on the roofs of the proposed development and will be incorporated into the design of the buildings so as to compliment the aesthetics of the development.
There will be emergency generators that will used during load shading intervals.

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 development will take place on, Erf 300 in Bochum A – Extension 3 of the Farm Bochum No.178 LS under Blouberg Local Municipality within the Capricorn District of the Limpopo Province.

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

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:

The current land use zone is business 1 as per the Blouberg Municipality land scheme.

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

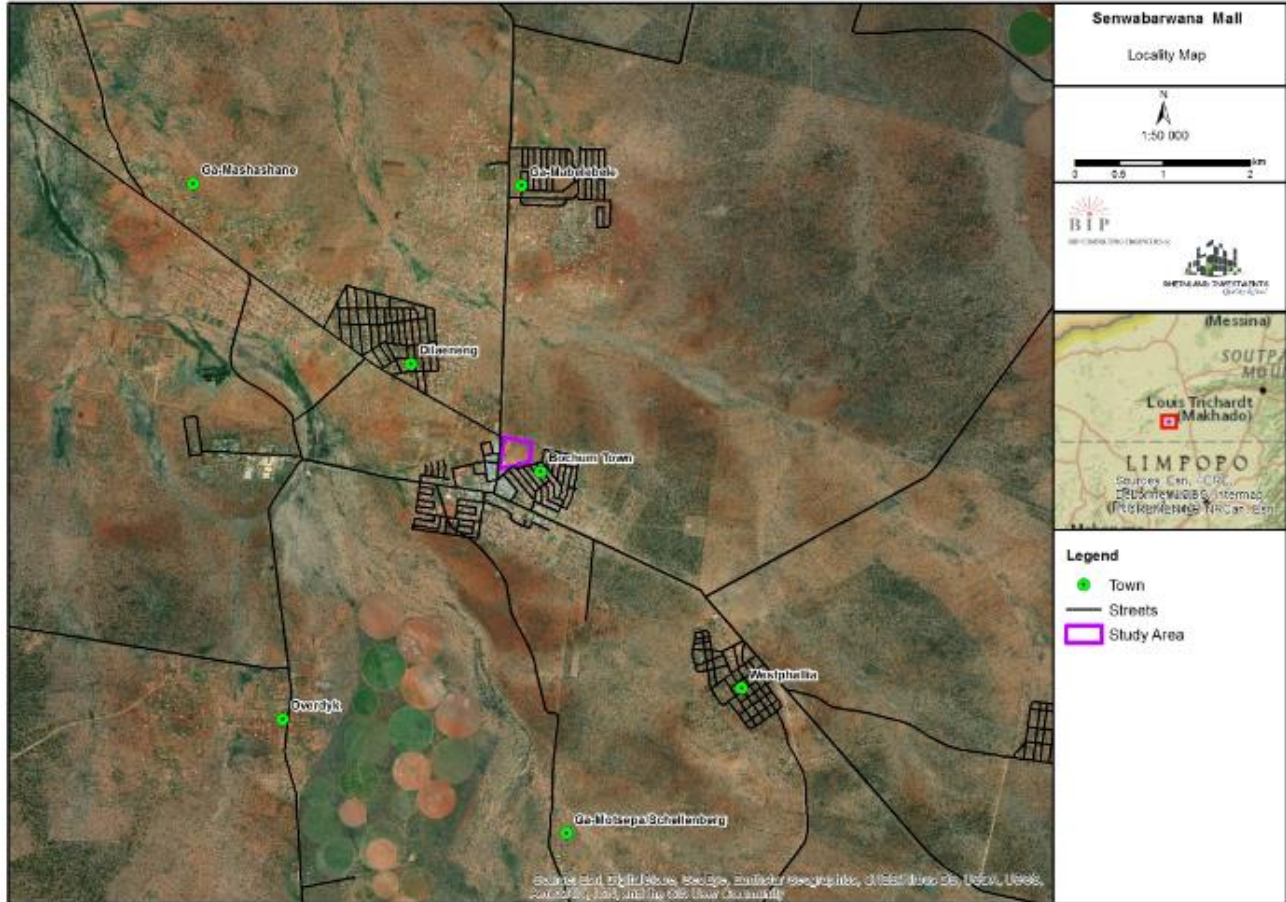
Locality map:

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)

The proposed development is located adjacent to Sasol Filling Station on the Indermark road, road within the Town Senwabarwana (formerly known as Bochum) under the Blouberge Local Municipality in the Limpopo Province.

The proposed development is within close proximity 100 km outside the Town Polokwane on the Dendron road R521.



1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat X	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 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		2.6 Plain	X
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)	YES	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

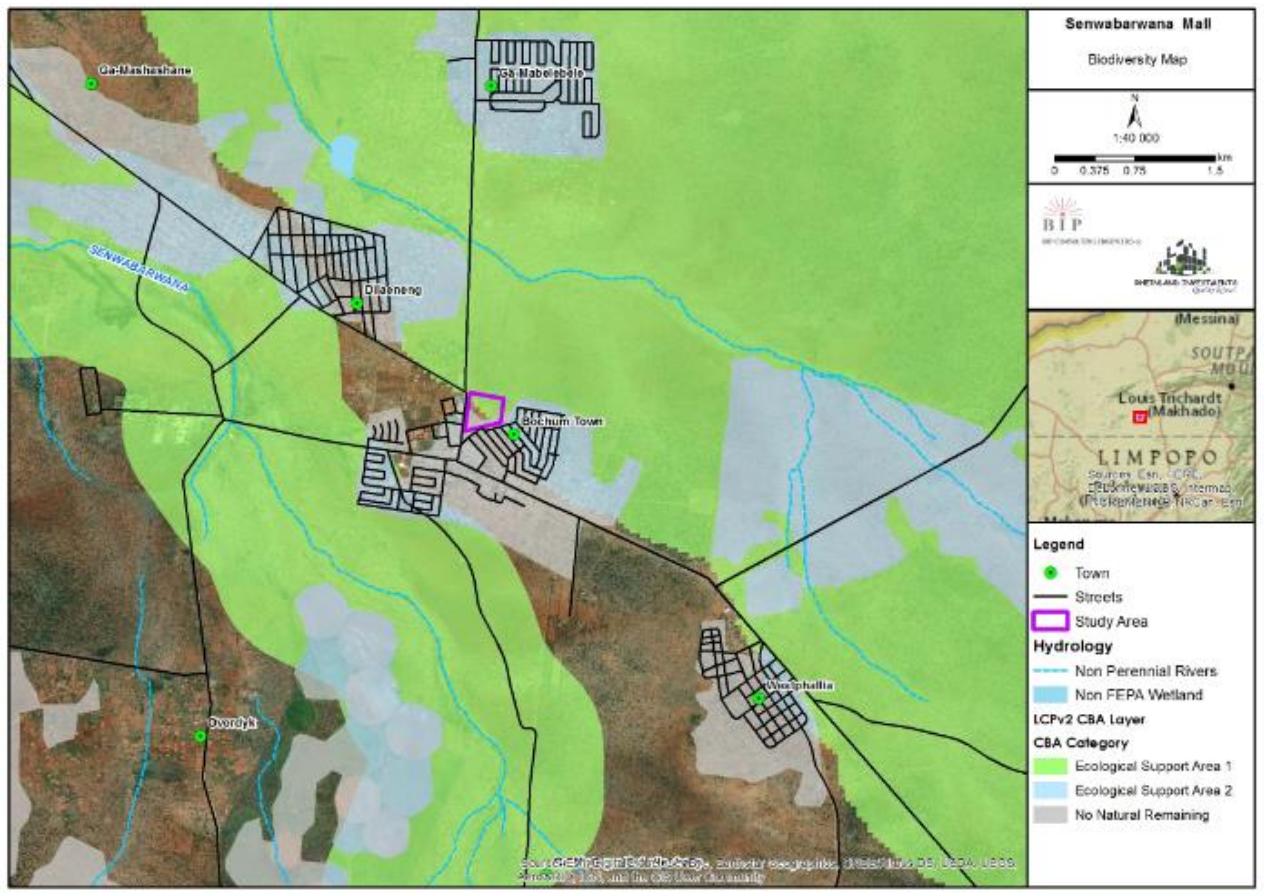
The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition ^E	Natural veld with scattered aliens ^E X	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field X	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E “is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

MORA Ecological Services complied the Biodiversity assessment (Flora and Founa survey) on the proposed site to determine the ecological impacts from the proposed development site and the important aspect used during the development and activities around it.

Although a large portion of the site is classified as Ecological Support Area (ESA)1, ground truthing revealed that the site has been highly transformed and there is no significant vegetation to be conserved.



Flora

The vegetation type found on the study site is Makhado Sweet Bushveld although the vegetation composition is a mixture of shrubs, graminoids and weeds which are common on disturbed. The table below indicates the type of vegetation communities that are found on site.

Species	Common Names	Growth form
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<i>Dichrostachys cinerea</i>	Sickle Bush	Shrub
<i>Erythrina lysistemon</i>	Common coral tree	Tree
<i>Searsia lancea</i>	Karee	Tree
<i>Sclerocarya birrea</i>	Marula (p)	Tree
<i>Vachellia tortilis</i>	Umbrella thorn	Tree
<i>Schoenoplectus brachyceras</i>	Soft cylindrical sedge	Sedge
<i>Gomphocarpus fruticosus</i>	Milkweed	Shrub
<i>Eragrostis superba</i>	Saw-tooth Love Grass	Grass
<i>Melinis repens</i>	Natal Red-Top	Grass
<i>Bothriochloa radicans</i>	Stinking grass	Grass
<i>Eragrostis chloromelas</i>	Curly Leaf	Grass

Weeds

The presence of several weeds and poor-quality species strongly reflects the transformed and degraded nature of the study site.

Species	Common Name	Growth Form
<i>Xanthium strumarium</i>	Large cocklebur	Shrub
<i>Xanthium spinosum</i>	Spiny cocklebur	Shrub
<i>Ricinus communis</i>	Castor-oil plant	Succulent
<i>Agave americana var. americana</i> ,	American agave	Shrub
<i>Argemone Mexicana</i>	Mexican poppies	Herb

Fauna

Birds are regarded as one of the most useful bioindicators, and they have been used extensively as models to determine ecosystem function. It should be noted that the vultures observed during the fieldwork were soaring approximately 1km in the sky.

Only two reptile species were recorded on site the Agama aculeata subsp. Distanti and Mabuya varia and also insects such as Anoplolepis custodiens and Trinervitemes

NB No mammals were found on site.

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 ^{AN}		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
5.7 Military or police base/station/compound	✓	5.28 Protected Area	
5.8 Spoil heap or slimes dam ^A		5.29 Sewage treatment plant ^A	
5.9 Light industrial		5.30 Train station or shunting yard ^N	
5.10 Heavy industrial ^{AN}		5.31 Railway line ^N	
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities		5.33 Airport ^N	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station ^H	✓	5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	
5.17 Plantation		5.38 Nature conservation area	
5.18 Agriculture		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

YES	
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Archaeological or palaeontological sites, on or close (within 20m) to the site?

Uncertain	
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If YES, explain:

The Apelser Archaeological Consulting conducted a heritage study to determine any whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon.

The study area's topography is flat and open with no rocky outcrops and ridges. During the assessment there was virtually no grass or tree cover and visibility was therefore good. The development area has been completely disturbed and cleared and a large part functions as soccer field. The study area is also surrounded by urban residential and business developments (housing and other) and as a result has been completely altered from its original character in recent years. If any archaeological and/or historical sites, features or material did exist here in the past it would have been largely disturbed or destroyed as a result.

The only significant heritage site located and recorded is an informal grave yard containing between 10 & 15 unknown graves that will be impacted by the development.

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:

The only significant heritage site located and recorded is an informal grave yard containing between 10 & 15 unknown graves that will be impacted by the development.

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

YES	NO
-----	----

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

YES	NO
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The site contains between 10 and 15 graves, and the site has not been fenced-in. Most of the graves here are stone-packed with no headstones, while there are 2 graves with cement headstones and that have cement borders. There are no inscriptions on these graves and at this stage the graves are therefore unknown in terms of identities of the deceased buried there and well as the age of these graves. They are therefore regarded currently as older than 60 years of age and protected by the National Heritage Resources Act.

Graves always carry a High Cultural Heritage Significance rating and should preferably be protected and not impacted by any development. Two options exist regarding the handling of graves and grave sites in terms of the impacts of development.

1. If the graves cannot be protected in situ through fencing and the implementation of a Graves Management Plan
2. They could be exhumed and relocated after detailed consultation with possible descendants have been concluded and permits have been obtained from various local, provincial and National government departments.



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.

The Public Participation Process is being undertaken in accordance with the requirement of the EIA Regulations, 2014, as amended:

- Two Site Notices are being placed at conspicuous places, at and around the proposed development area where the proposed shopping centre and associated infrastructure, is intended to be constructed. The site notices have stated that an application has been submitted to the competent authority (LEDET) in terms of the NEMA regulations and also provides for information on the nature and location of the proposed activity, and where further information on the proposed activity can be obtained and the manner in which representations on the application may be made.

- The Ward Councillor of Ward 19 was informed of the project. Other organisations that represent the community have been notified.
- The Blouberg Municipality was informed of the project, and are in support of the proposed project
- State Departments have been identified which may have jurisdiction over any aspect of the activity of Rheinland Investment intention to submit an application to the competent authority. A list of State Departments was attached to this Draft BAR as Appendix 9 of Appendix E (Public Participation Information).
- A newspaper advert was placed in the Capricorn Voice newspaper on Wednesday, 19 June 2019. Proof of advertisement is attached, refer to Appendix 3 of Appendix E (Public Participation Information). Capricorn Voice newspaper was used because there was no local newspaper in Senwabarwana. The use letter that the municipality use to communicate will be published in the next financial year.
- The fact that there are unidentified graves on the proposed development a public participation meeting was held on the on Thursday, 18 July 2019 at Bloubery Municipal chamber at 16:00. Proof of the attendance register is attached. Refer to Appendix 3 of Appendix E.

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. **(To be attached in the Final BAR)**

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)
Limpopo Heritage Resource Authority	No
Department of Energy	No
Department of Rural Development and Land Reform	No
Department of Agriculture and Rural Development	No
Department of water, sanitation and human settlement	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?

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

An application for EA is being submitted to the LEDET in terms of the NEMA 2014 EIA Regulations, as amended. The proposed project is being announced simultaneously with this Draft BAR being put out on public review. The announcement documentation is being submitted to all I&APs. The announcement documentation provides for information on the nature and location of the proposed activity; where further information on the proposed activity can be obtained and the manner in which representations on the application may be made. Stakeholders are expected to comment on the notification documentation **from Wednesday, 19 June 2019 to Friday 19 July 2019**. Their comments will be included in the CRR which will be attached in the Final BAR

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.

The following question were asked:

How big is the proposed development?

How old are the graves?

If the graves have to removed cos, they are old and no one knows anything about them, they can be removed.

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

The proposed development is 8.2 ha in extend

The graves look old, they could be older than most of us in the grave.

The community is ecstatic about the proposed project as it will empower them and uplift their economic situation.

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.

Following is the description of the methodology utilised in the rating of significance of impacts for the realignments and alterations:

Extent

Rating	Description
Footprint/ site (1)	Extends only as far as the activity, such as footprint occurring within the total development area.
Local Area (2)	Affect the site.
Regional (3)	Affect the regions.
National (4)	Affects other provinces throughout the country.
International (5)	Affects other countries outside South Africa.

Intensity

Rating	Description
Very low (1)	Natural processes not affected
Low (2)	Natural processes slightly affected
Medium (3)	natural processes continue but in a modified manner A few times a month
Medium-high (4)	Natural processes are modified significantly
High (5)	Natural processes disturbed significantly so that they cease to occur (temporarily / permanently)

Duration

Rating	Description
Short-term- few days (1)	The impact will eventually not be felt due to the implementation of mitigation measures 0-5 years.
Short-term- few months (2)	The impact will eventually not be felt due to the implementation of mitigation measures 0-5 years.
Medium-term (3)	5 to 15 years from construction.
Long-term (4)	The impact will last for the entire operational phase, but will end at the end of operational phase due to natural processes or human interventions.
Permanent (5)	Mitigation either by human or natural interventions/ processes will not occur in such a way or in such a time span that the impact can be considered transient.

Probability

Rating	Description
Improbable (1)	The probability of an impact occurring is none, either due to the design, historic circumstances, design or experience.
Possible/ probable (2)	The probability is very low.
Likely (3)	The probability is low.
Highly probable/ possible (4)	It is most likely that the impact will occur.
Definite (5)	The impact will occur regardless of any prevention measures.

Determination of Significance without mitigation

Significance provides an indication of the importance of the impact in terms of both tangible and intangible characteristics. The significance of the impact without mitigation is the prime determinant of the nature and degree of mitigation required. Where the impact is positive, significance is noted as positive. Significance will be rated on the following scale:

$$\text{SIGNIFICANCE} = E + I + D + P$$

The minimum result should give a minimum value of 5, maximum of 25. This will determine whether the impact is negative or positive.

Rating	Description
No significance= <1	The impact is not substantial and does not require any mitigation action
Low = 1– 5	Low consequence, probably, minimal mitigation may be required.
Medium = 6 to 10	Medium consequence, probably, mitigation is advised / preferred. The impact is of importance and is therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
Medium–high = 11 to 15	Medium to high consequence, probably to very probable, mitigation is necessary. The impact is of major importance but through the implementation of the correct mitigation measures, the negative impacts will be reduced to acceptable levels.
High = 16 to 20	High consequence, probably / definite, mitigation is essential. The impact is of major importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

Mitigation

The impacts that are generated by the project activity can be minimised if measures are implemented in order to reduce the impacts. The mitigation measures ensure that the project activity considers the environment and the predicted impacts in order to minimise impacts and achieve sustainable development.

Determination of Significance with mitigation

Determination of significance with mitigation refers to the foreseeable significance of the impact after the successful implementation of the necessary mitigation measures. Significance with mitigation will be rated on the following scale:

Rating	Description
No significance:	The impact will be mitigated to the point where it is regarded as insubstantial.
Low	Low consequence, probably, the impact will be mitigated to the point where it is of limited importance.
Medium	Medium consequence, probably, the negative impact will remain of significance. However, taken within the overall context of the project, the persistent impact does not constitute a fatal flaw;
Medium–high	Medium to high consequence, probably to very probable, mitigation is necessary. The impact is of major importance but through the implementation of the correct mitigation measures, the negative impacts will be reduced to acceptable levels.
High	High consequence, probably / definite, mitigation is essential. The impact is of major importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.
Extreme	Very high consequence, definite, fatal flaw!

Potential Impacts that may result from the proposed activity during the Designing Phase

Impact	Aspect	Nature of Impact	Duration	Spatial Extent	Probability of Occurrence	Significance pre mitigation	Mitigation	Significance post mitigation
Environmental Legal and Policy compliance	Failure to adhere to existing policies and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	Direct	Long term	Local Area	Probable	High	The planning and design of Shopping complex and related project activities must comply with all relevant legislation and Policies. The project owner to ensure that identified plant species are translocated before any project activities commerce, and this should be done with authorization obtained from LEDET. The correct procedure to be adhered for the removal of the grave.	Low
Bulk Service	Insufficient capacity of municipal sewage works to treat sewage from the development	Direct	Long Term	Municipal	Likely	High	The municipality has insufficient capacity and therefore the client will have a waste treatment plant on	Low

							site. Furthermore, the DWS should be consulted in these regards to ensure compliance with the requirements for the water uses	
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Potential Impacts that may results from the proposed activity during Construction Phase

Impact	Aspect	Nature of Impact	Duration	Spatial Extent	Probability of Occurrence	Significance pre mitigation	Mitigation	Significance post mitigation
Construction Camp and all Construction activities	Siting of construction camp could lead to impact on the following environmental impacts: <ul style="list-style-type: none"> • Dust • Noise • Soil Erosion • Visual Pollution 	Direct	Short Term	Localised	Probable	High	The construction camp must be in an area that will not impact on the natural environment, not create a visual impact, noise hazard, and not create a traffic hazard <u>Dust:</u> Water spraying must be done before on site to suppress dust. <u>Noise</u> Construction time will be between 8:00 and 17:00 hours.	Low
	Soil Contamination	Direct	Short Term	Localised	Probable	High	Oil drip trays must be on site at all times where oil will be used. Cement mixing will not be done on the ground. A plastic seal	Low

							should be place on the ground before any cement mixing can be done.	
	The generation of dust, noise and visual impacts will create a nuisance factor in the area, particularly with regards to the surrounding residential areas.	Direct	Medium Term	Localised	Probable	High	Construction activities must account for reducing and controlling dust, noise and visual impact. <ul style="list-style-type: none"> Method Statement must be adhered to for measures to control and reduce noise, dust and visual impacts. 	Medium
	Waste Management All waste generated must be separated and stored in different waste lagoons/bins	Direct	Short	Localised	Definitely	High	Minimize the waste generated through the use of best technologies as well as recycling of waste.	Low
Impact on Indigenous Vegetation	Loss of indigenous vegetation Removal of top soil Removal of top and under vegetation layer	Direct	Permanent	Localised	Likely	High	Ensure open space accommodates the vegetation including a buffer surrounding the sensitive areas.	Low
	Changing habitat unit	Direct	Long Term	Localized	Probable	Medium	Construction activities must not impact on the areas to be protected as open space. These areas must be demarcated and classified as 'no-go' areas for the duration of the construction period.	Low

							<ul style="list-style-type: none"> • The ECO must ensure that these areas are protected and that all construction workers are made aware of this and the penalties that will be incurred should these areas be damaged. 	
	Loss of potential habitats for faunal and floral species of special concern	Direct	Permanent	Localized	Likely	High	<p>Ensure open space accommodates the vegetation including a buffer surrounding the sensitive areas.</p> <p>Ensure spring and summer site visits are conducted by a qualified botanist to identify plants of special concern.</p> <p>It is recommended that a suitable faunal specialist undertake a site visit to determine likelihood of any listed faunal species occurring on the site and to submit suitable management guidelines before construction commences.</p>	Low

							Ensure the Environmental Management Plan includes localities of these plants and if applicable animals, and measures to rescue, protect/remove them.	
Water Resource	Stormwater could potentially damage habitats housing listed faunal and/or plants species carefully channelled to avoid sensitive areas.	Direct	Permanent	Localized	Likely	High	Stormwater must be carefully channelled to avoid sensitive areas.	Low
	Construction activities might lead to surface and ground water contamination.	Direct	Medium Term	Localized	Probable	Medium	<p>Ensure careful planning to prevent surface and groundwater contamination.</p> <p>Ensure the construction camp is not located near the steep slopes that drain into any water resources.</p> <p>The ECO must ensure that method statements are written and adhered to for correct procedures to handle all hazardous</p>	Low

							<p>substances that could potentially contaminate soil and water.</p> <p>All construction workers are made aware of this and the penalties that will be incurred should these areas be damaged.</p>	
Surface Soil	Construction activities will lead to erosion, particularly on the steep slopes if these are denuded of vegetation and left uncovered for long periods of time.	Direct	Medium Term	Localized	Probable	Medium	<p>The ECO must ensure that method statements are written and adhered to for correct procedures to prevent and control erosion.</p> <p>All construction workers are made aware of this and the penalties that will be incurred should these areas be damaged.</p> <p>Stormwater outlets must be constructed as specified by the engineer in the design</p>	Low

							phase to ensure prevention of erosion at these outlets.	
Bulk Service	Insufficient capacity to treat sewage from the municipality may result in highly significant impacts on residents in close proximity to the sewerage works, or the residents who may experience potential damage to the reticulation systems services their households.	Direct	Permanent	Municipal	Likely	High	The municipality has a limited capacity at their sewer treatment plant; therefore the client has to develop a waste water treatment plant on site to reduce pressure and capacity of the municipality. Furthermore, Department of Water and Sanitation (DWS) should be consulted in this regard to ensure compliance with the requirements of water uses.	Low
	Insufficient potable water available to meet the demand of the proposed development.	Direct	Permanent	Municipal	Likely	High	The old sport field are a has less potable water area, therefore the people will have to ask for water at the neighbouring shops. The site is recommended to drill water borehole for water supply and a septic tank to the standard that will not contaminate the groundwater. Furthermore,	Low

							Department of Water and Sanitation (DWS) should be consulted in this regard to ensure compliance with the requirements of water uses.	
	Excavation of the hard rock in the central area of the site could lead to noise and delays in activities	Indirect	Medium Term	Localized	Probable	Medium	Excavation of the hard rock should be included in the planning stage. The ECO must ensure that method statements are written and adhered to for alerting neighbours regarding noise and dust issues related to excavating the hard rock. All construction workers are made aware of this and the penalties that will be incurred should these areas be damaged.	Low
Fire Hazard	An increased fire hazard during the construction is likely with the increase in activity in the area	Direct	Long Term	Localized	Unlikely	High	All measures to prevent fires must be included in the designing of the development and in the contractors' contract document.	

							A fire emergency plan must be developed and be known to all service providers.	
Cultural heritage and archaeology	Cultural heritage and archaeologically important artefacts will be lost during construction activities	Direct	Long Term	Localized	Unlikely	Medium	<p>All people employed on site must be made aware of possible cultural and archaeologically important artefacts and what process to follow if these are found or suspected.</p> <p>A method statement must be written and include but limited to training on chance find procedure</p>	Low

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)

Assuming all phases of the project adhere to the conditions stated in the EMPr (Appendix F) it is believed that the impacts associated with the proposed project will have no significant adverse long-term environmental impact on the surrounding environment.

Positive impacts associated with the project include:

- To meet the demand of the community by providing with accessible convenience shopping, fueling, accommodation etc. and a selection of fast food and other restaurant choices in one stop shop into their doorstep.
- Employment opportunities and skills development; and
- Contributing to the local economy and helping to retain valuable spend in the area.

It is perceived that these positive impacts will be long term and have sustainable benefits for the region. It must be ensured that the proposed development, in no way, hampers the health of any of the agricultural or ecological systems, or items of heritage significance which may be identified on and surrounding the site. Post-construction rehabilitation should ensure that the surrounding agricultural and natural environments are left in as good, if not better, state. In this regard, project owner must ensure that all construction related waste and hazardous materials are removed from the site and that rehabilitation of land is undertaken according to the requirements of the EMPr

Any alien plant / land management programmes that are implemented during the construction phase must be maintained during the construction defects liability period and operational phase of the project. Impacts on the surrounding natural environment have been mitigated to acceptable levels in the opinion of the EAP through careful upfront planning and design of the proposed layout.

No-go alternative (compulsory)

Should the site not be developed, it would have remained as the old sport group with old building that are used by some community members, to perform illegal activities.

The proposed shopping complex has some negative impact associated with the no -go option.:

1. Increased alien plant invasion - This impact is direct, long term, localized, is occurring and is of HIGH significance as the alien vegetation is outcompeting the remaining intact natural vegetation which also reduces the likelihood of remaining faunal habitats being viable. Mitigation would involve removal of the alien vegetation which would result in the impact have a LOW significance. The likelihood of the mitigation being implemented is low.
2. High demand for convenient shopping and leisure – If this area is not developed for the purposes of constructing the shopping complex development, the demand for convenience retail food, accommodation and fuel will remain very high and traffic to CBD will increase since the community will have to travel far to meet their needs. This is a direct impact, medium – long term, localized and is of high significance with a high probability of occurring. Mitigation measures would involve the development of that area so that it can serve both purposes of providing shopping convenience and providing accommodation to the truck drivers and the community and or tourist and reduce the environmental risks & threats through monitored management of the area.

Positive Impacts of the No – Go option includes:

There are no positive impacts that were identified since there already some environmental disturbances that have been inflicted by the previously sport ground activities.

Alternative B

N/A

Alternative C

N/A

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	NO
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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 proposed development should not result in impacts on the social environment that are highly detrimental, nor result in undue risks to the natural environment if proper mitigation measures are implemented. The nature and types of negative impacts do not outweigh the potential benefits of this project, provided that the short-term localized impacts of the construction phase are adequately mitigated. In this regard, an EMPr that shall be compiled would be attached to this report (**see Appendix F**), this must be implemented by the authorization holder / future landowners as well as their appointed project managers and contractors.

Should the project receive a positive decision on Environmental Authorization, the Environmental Assessment Practitioner (EAP) recommends that the following conditions be included in the Department’s decision, in order to ensure that the 10-15 unidentified graves on site have been exhumated and relocated to the nearest gravesite in the area.

During the construction phase, it is recommended that the Authorization Holder appoint a competent independent individual (Environmental Control Officer – ECO) to monitor and report on the contractor(s) compliance with the conditions contained within the Environmental Authorization & Environmental Management Programme (EMPr). Monitoring audits and reporting should take place on before construction phase begins and a closeout audit must be undertaken post rehabilitation of areas affected by construction activities. During the construction of petrol station, accommodation buildings as well as the shopping complex buildings it is the recommendation of the EAP that the Project Owner appoints a competent independent individual (Environmental Control Officer – ECO) to undertake a minimum of 3 (three) compliance audits during the construction phase of the project. These three site audits should at a minimum take place as follows:

- One audit prior to construction commencing to brief the contractor on the site-specific requirements, as well as the general requirements of the Environmental Approvals obtained for the development;

- One audit half way through the construction process to monitor compliance with the environmental approvals; and
- One close out audit immediately post rehabilitation of the construction footprint.

The EMPr for the development is to be implemented and audited on a regular basis during construction. The EMPr for the operational phase of the development is to be adopted by the applicant in terms of its buildings and landscapes maintenance policies and plans.

The area to be protected as open space must be protected during the construction phase and all landscaping must be 100% locally indigenous. Special care and erosion prevention measures must be taken when working in areas where naturally dispersive soils occur.

Final designs must take into account specialized recommendations made by the geotechnical engineers for sensitive areas which may be naturally prone to soil erosion.

All of the above recommendations have been incorporated into the EMPr where necessary (**Appendix F**) which must be approved and implemented for the construction phase of the project.

Provided that the above conditions form part of the conditions of approval, it is the opinion of the EAP that the Application should be granted a positive decision on Environmental Authorization for the proposed development.

Is an EMPr attached?

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

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Disego Moloto** declare that I –

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

Signature of the Environmental Assessment Practitioner:

Molshe Business Solution

Name of company:

25 July 2019

Date: