APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) FOR THE PROPOSED ESTABLISHMENT OF FUMANI ORCHARD PLANTATION ON THE FARM IRELAND 210 LT AT KA-DINGA VILLAGE WITHIN THE COLLINS CHABANE MUNICIPALITY, VHEMBE DISTRICT IN LIMPOPO PROVINCE

APPLICANT:
FUMANI ORCHARD PLANTATION

LEDET Ref no: 12/1/9/1-V416

NEAS Ref no: LIM/EIA/0001536/2022

SUBMISSION DATE:
June 2022

PROJECT INFORMATION

Document Name	Basic Assessment Report (BAR)
Report Status	Final
Document Class	Public
Project Title	Application for Environmental Authorisation for the proposed establishment of Fumani Orchard Plantation on the Farm IRELAND 210 LT at Ka-Dinga Village within the Collins Chabane Municipality, Vhembe District in Limpopo Province.
Purpose of this Report	The purpose of this BA Report is to: • Present the proposed project and the need for the project; • Describe the affected environment at a sufficient level of detail to facilitate informed decision-making; • Provide an overview of the BA Process being followed, including public consultation; • Assess the predicted positive and negative impacts of the project on the environment; • Provide recommendations to avoid or mitigate negative impacts and to enhance the positive benefits of the project; and • Provide an Environmental Management Programme (EMPr) for the proposed project. This BA Report is the FINAL Version submitted to LEDET for Environmental Authorisation.
Applicant Name	Fumani Orchard Plantation
Consultant Name	Biomental Services
LEDET Ref no.	12/1/9/1-V416
NEAS Ref no.	LIM/EIA/0001536/2022
Report Date	June 2022
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EXECUTIVE SUMMARY

a) Background

The study site is largely vacant land utilised for communal grazing of livestock (Cattles, goats, sheep).The site is situated 1.9 km eastward of the R81 road and traversed by D3647 road (an un-surfaced road) connecting with R81 road. The topography of the study area is relatively flat sloping down to a gentle valley bottom in which matangari drainage line runs (west to eastwards). The soil type is as a result of Soutpansberg group of sandstones and smaller amount of conglomerate, shale and mostly basalt. The study area consists of deep sands to shallower sandy litho-sols, with a few limited areas displaying B-horizons and soil property (Nesbitt, 2014).

b) Introduction

The proposed establishment entails the clearing of 10ha of indigenous vegetation for the establishment of Fumani Orchard Plantation at Ka-Dinga Village within the Jurisdiction of Collins Chabane Municipality, Limpopo Province. This activity has triggered listed activity 27 of GNR 327 in terms of Environmental Impact Assessment (EIA)Regulations 2014 as amended in April 2017 promulgated under the National Environmental Management Act,1998 (Act no 107 of 1998) as amended. GNR 983-Activity 27 *"The clearance of an area of 1 hector or more, but less than 20 hectors of indigenous vegetation"*

The project also aims at improving the socio-economic environment of the area through bringing about skills development and the creation of sustainable jobs in the neighbouring villages.

Biomental Services has been appointed by the applicant Mr Lawrence Tinyiko Chauke to provide professional environmental management services for the proposed project by compiling the Basic Assessment Report (BAR) that incorporates Environmental Management Plan (EMP) in terms of National Environmental Management Act, 1998 (Act No. 107 of 1998).

An application for Environmental Authorisation was lodged with the Limpopo Department of Economic Development, Environment and Tourism (LEDET) in terms of Environmental Impact Assessment (EIA) Regulations of 2014 as amended in April 2017 promulgated in terms of the National Environmental Management Act (Act 107 of 1998).

c) Legal Requirements and Legislative Process

A Basic Assessment (BA) process is required for the proposed development as it triggers listed activities defined under the National Environmental Management Act, Act No. 107 of 1998 (NEMA, 1998), as amended, in terms of the, Government Notice (GNR) 327 of 7 April 2017 of the Environmental Impact Assessment (EIA) Regulations. The BA process includes an environmental assessment with regards to the proposed development, and the aim is to identify potential impacts associated with the development and to recommend methods to avoid or reduce adverse impacts and promote positive impacts. The BA process is undertaken to provide the Competent Authority, in this case the Limpopo Department of Economic Development, Tourism and Environmental Affairs (LEDET), with information about environmental assessment outcome in order for the Department to make a decision on the Application for Environmental Authorisation for the proposed development. Relevant listed activities triggered by the proposed activities are described as follows:

Date of the relevant notice	**Activity No (s) (in terms of the relevant notice) e.g. 1(a)**	**Description of listed activity as per project description**
GNR 983 of 2014	**27**	The development will require clearance of an area of 10 hectares of indigenous vegetation.

d) Description of receiving environment

Biophysical environment of the receiving environment is described as follows:

i. Climate

The rainfall in this area usually varies between 300 and 400 mm in summer, while experiencing very dry winters. The area is characterized by cool, dry winters (May to August) and warm, wet summers (October to March), with April and September being transition months. Temperature ranges from 0.9 °C to 39.9 °C and the area is generally frost free. The mountains give rise to wind patterns that play an important role in determining local climates. These wind effects include wind erosion, aridification and air warming.

ii. Temperature

Average daily maximum and minimum summer temperatures (November to February) at the weather station range between 33°C and 20°C, while winter temperatures (May to August) range between 28°C and 7°C respectively. The high average temperatures are reflected by the fact that the minimum average daily summer temperature is a high 20°C and the minimum average daily winter temperature does not dip below 7°C.

iii. Topography

The topography of the general region and study area is flat to slightly undulating plains, with no distinctive ridges, valleys, ravines, or rocky outcrops. The soil type is because of Soutpansberg group of sandstones and smaller amount of conglomerate, shale and mostly basalt. The study area consists of deep sands to shallower sandy litho-sols, with a few limited areas displaying B-horizons and soil property (Nesbitt,2014).

iv. Vegetation

The study area and the surrounding area are found within the Savanna Biome, which is also known as the Bushveld Biome Savanna vegetation types (veldtypes) tend to have a mix of a lower grassy layer, middle shrub layer and an upper woody layer. The mix and ratio of the three layers varies from veldtype to veldtype within the Savanna Biome. The Savanna Biome is subdivided into six bioregions, namely, Central Bushveld; Mopane; Lowveld; Sub-Escarpment Savanna; Eastern Kalahari Bushveld; and Kalahari Duneveld.

The exact coordinates of the proposed development area are plotted to determine the vegetation unit(s), in which the development activities will take place. The data used, is that provided by Mucina and Rutherford (2006). A vegetation unit is defined by Mucina and Rutherford (2006) as a complex of plant communities ecologically and historically occupying habitat complexes at the landscape scale. According to Mucina and Rutherford (2006) their vegetation units are the obvious vegetation complexes that share some general ecological properties such as position on major ecological gradients and nutrient levels and appear similar in vegetation structure and especially in floristic composition.

V. Soil and Land Capability

The general soil pattern for the area is classified as non-arable grazing woodland / wildlife land and wilderness capability. The grazing capacity ranges from non-arable in the north to wilderness area in the south, with low grazing potential.

e) Anticipated Potential Environmental Impacts

The aim of the environmental assessment is to identify potential impacts associated with the development and to recommend methods to avoid or reduce adverse impacts and promote positive impacts. A summary of potential significant impacts that have been identified during the Basic Assessment process is as follows:

Summary of Potential Impacts	Significance Rating of Impacts Before Mitigation	Significance Rating of Impacts after Mitigation
Impact on soil (erosion and dust)	Medium	Low
Loss of vegetation and faunal habitat	Medium	Low
Introduction and increase in alien invasive vegetation	Medium	Low
Impact on wetland habitat	High	Low
Potential for pollution of water sources	Medium	Low
Waste generation	Medium	Low
Impact of air quality	Medium	Low
Impact of pests and disease transmission	Low	Low
Safety and security impacts	Medium	Low
Open trenches	High	Medium
Impact of increased traffic	Low	Low
Employment opportunities created	Medium (Positive)	Medium (Positive)

f) Specialist reports

The Specialists has been appointed to assess the site as discussed during the pre-consultation meeting with the competent authority (LEDET). The studies will assist with the development and understanding of the system processes and the potential impacts of the proposed development on both the biophysical and social environments. The following specialist has been conducted to augment this BAR:

- **Ecological Report**

MAX XOX (PTY)LTD T/A ENVIROMAX CONSULTANTS was appointed to commission with specialist ecological study in order to characterize the ecological features of the site and provide an assessment of the likely impacts associated with the construction and operation for the proposed establishment of

Fumani Orchard Plantation on the fauna and flora present at the site in accordance with the National Environmental Management Act (NEMA) 107 of 1998.

No species found in the study area is listed in the 2009 Red Data Listing (RDL) nor has any threat status. No Orange Data species or species of conservation concern were observed during field investigations.
According to the data for protected areas, no portions fall within a protected area, however the area is part of the Vhembe Biosphere Reserve.

According to B-GIS "Critical biodiversity areas (CBAs) are areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services", therefore the purpose of CBA's is simply to indicate spatially the location of critical or important areas for biodiversity in the landscape. According to the data for Critical Biodiversity Areas, the area of the proposed development site falls within the buffer of CBA type 1.

Based on the initial desktop data analysis the area of the proposed development site has a VERY HIGH SENSETIVITY RATING with a non-perennial stream that is part of the Shingwedzi catchment located southwest of the development site. However, site visits confirm that the proposed development site sensitivity status has changed due to impacts such as change in land use (Agriculture), overgrazing due to livestock farming, deforestation, uncontrolled veld fires, settlement development and desertification (See Figure 4 of report). Furthermore, the proposed development site is located more than 200m away from the river catchment buffer zone.

- **Heritage Impact Assessment**

Ndalama Heritage Consulting was appointed by Biomental Services on behalf of Tinyiko Lourence Chauke to conduct a survey and specialist input for the area of the proposed establishment of Fumani Orchard Plantation on Farm Ireland 210-MT, at Ka-Dinga Village within Collins Chabane Local Municipality of Vhembe District Municipality, Limpopo Province. The scope of the survey was to investigate for the presence of heritage or archaeological materials on the proposed development site. The findings are summarized as follows;

• No structures older than 60 years, graves or any palaeontological remains were identified.

• No heritage resources as described under Section 3 of the national heritage Resource Act (25 of 1999) were identified.

• Development can go ahead without any further mitigation. It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal materials be revealed on the sites during agricultural activities, such activities should be halted, and a cultural/archaeological heritage specialist notified in order for an investigation and evaluation of the finds to take place. From an archaeological and cultural heritage resources perspective, we recommend LIHRA to approve the project as planned without any further heritage mitigation.

g) Environmental Management Programme

An Environmental Management Programme (EMPr) shall be compiled for the for the establishment of Fumani Orchard Plantation, with the aim of serving as an applicable document to follow in order to manage and mitigate identified potential negative impacts associated with the project. Implementing effective mitigation measures will assist in reducing the potential impacts on the surrounding environment during both the construction and operational phases of the proposed development. With the implementation of the mitigation measures as suggested in the EMPr, i.e. the significance of most of the impacts associated with the proposed development will be reduced to Low.

h) Public Participation Process

The Public Participation Process was conducted in terms Chapter 6: Regulation 41(2); 42 and 43(1) of GNR 982 (04 December 2017) of the National Environmental Management Act 107 of 1998 and National Water Act No 36 of 1998. Public Participation is the cornerstone of the Environmental Impact Assessment process. These include the ongoing provision of sufficient information (in a transparent manner) to Interested and Affected Parties (I&APs).

Various Stakeholders and Interested and Affected Parties were identified during this process. These included the Councillor, Business sectors in the surrounding area and Government sectors as well as the general public. Two phases for the for the establishment of Fumani Orchard Plantation in Collins Chabane Local Municipality of Vhembe District, Limpopo Province were conducted and these included the circulation of the project notices and the Background Information Document (BID). The Draft BAR was made available for comments to the Stakeholders and Interested and Affected Parties.

A newspaper advertisement was placed in the local newspaper, Mirror on the 12 November 2021 in terms of Regulation 41(2) (c), 2017 of the National Environmental Management Act, 1998. Public Participation meeting was held on the 29 December 2021 at ka Dinga Village and the Report is submitted with the final BAR.

i) Statement form EAP

The proposed development should not result in impacts on the natural or social environment that are highly detrimental, nor result in undue risks to the natural environment. The nature and types of negative impacts do not outweigh the potential benefits of this project, provided that the short-term localised impacts of the construction phase are adequately mitigated. In this regard, an EMPr has been compiled and is attached to this report (see Appendix F). It is recommended that external bi-monthly EMPr monitoring takes place by an independent Environmental Control Officer (ECO) to ensure that the requirements of the EMPr are being correctly implemented, thus ensuring the protection of the surrounding environment during construction.

j) EAPs Recommendation

Based on the findings of the Basic Assessment process for proposed development, it is recommended that this project be authorised, subjected to the following conditions:

1. The EMPr of this proposed development must form part of the contractual agreement and be adhered to by both the contractors and the applicant.
2. The recommendations of the ecological and heritage specialists, including avoiding the disturbance of riparian vegetation, must be implemented.
3. The applicant must ensure compliance with the conditions of the Environmental Authorisation and EMPr during all the phases of the project.
4. A Water Use Licence must be obtained from the Department of Water and Sanitation (DWS) for the water usage associated with the facility operations; in case the facility necessitates borehole water.

It is the opinion of the EAP that the proposed development will comply with current relevant environmental legislation and that with the implementation of the mitigation measures suggested in this EMPr, there are no negative environmental impacts of high significance identified after mitigation. An ecological and heritage assessment was conducted to inform the BA to ensure that the proposed layout avoids areas of high sensitivity. Based on the above, it is therefore recommended that the proposed development be granted Environmental Authorisation.

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:	
	(For official use only)
NEAS Reference Number:	
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.

Chr 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

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.

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:-

Postal Address:	**Physical Address**:
Central Administration Office Environmental Impact Management P. O. Box 55464 **POLOKWANE** 0700	Central Administration Office Environmental Affairs Building 20 Hans Van Rensburg Street / 19 Biccard Street **POLOKWANE** 0699
Queries should be directed to the Central Administration Office: Environmental Impact Management:- **For attention:** Mr E. V. Maluleke **Mobile:** 082 947 7755 **Email:** malulekeev@ledet.gov.za	

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
	X	

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[1]:

The proposed development entails the establishment of an orchard plantation. The project entails planting, harvesting crop such as Spinach, Cabbage, Carrots, beetroots, Green papers, Chillies, Lucerne, Potatoes, Beans, Onions and tomatoes. Office block, storage facility and ablution facilities will be constructed on the same 10 Hectares of the Farm IRELAND 210 LT.

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.

[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.

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 Hartebeeshoek 94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Alternative:	**Latitude (S):**			**Longitude (E):**		
Alternative S1[2] (preferred or only site alternative)	23˚	3'	12.00"	30˚	41'	44.40"
Alternative S2 (if any)	°	'	"	°	'	"
Alternative S3 (if any)	°	'	"	°	'	"

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	°	'	"	°	'	"
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.

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

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:	**Size of the activity:**
Alternative A1[3] (preferred activity alternative)	100000m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

or,

for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

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

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

5. SITE ACCESS

Does ready access to the site exist?	**YES** **X**	**NO**
If NO, what is the distance over which a new access road will be built	m	

Describe the type of access road planned:

The site is situated 1.9 km eastward of the R81 road and traversed by D3647 road (an un-surfaced road) connecting with R81 road.The study area is situated 5km east of the town of Malamulele at Ka-Dinga Village within the Jurisdiction of Collins Chabane Local Municipality, Limpopo Province.

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

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.

11. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 1000,000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	R 500,000.00	
Will the activity contribute to service infrastructure?	YES **X**	NO
Is the activity a public amenity?	YES **X**	NO
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?	R 100 000,00	
What percentage of this will accrue to previously disadvantaged individuals?	70 %	
How many permanent new employment opportunities will be created during the operational phase of the activity?	5	
What is the expected current value of the employment opportunities during the first 10 years?	R	
What percentage of this will accrue to previously disadvantaged individuals?	70 %	

9(b) Need and desirability of the activity

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

NEED:			
i.	Was the relevant municipality involved in the application?	YES **X**	NO
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	YES **X**	NO
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 **X**	NO
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 **X**	NO
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES **X**	NO

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?	YES	NO **X**
vi.	Will the proposed land use / development set a precedent?	YES **X**	NO
vii.	Will any person's rights be affected by the proposed land use / development?	YES	NO **X**
viii.	Will the proposed land use / development compromise the "urban edge"?	YES	NO **X**
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		
	The environmental sensitivities present on site were determined and assessed within the ecological impact assessment undertaken for this project (Appendix D). The specialist identified all ecological sensitive areas on site that must be avoided by the proposed development as well as how to suitably develop within these areas so that the ecological integrity of the areas is maintained. Measures to avoid, remedy, mitigate and manage impacts are included within the compiled Environmental Management Programme (EMPr), included as Appendix F of the Report, which forms part of this BA Report. An EMPr (Appendix F) has been compiled for the proposed project to ensure that all potential negative impacts identified are suitably managed and mitigated, and potential positive impacts are enhanced. The impact on the sense of place is difficult to predict and would potentially be ambiguous. This is due to the subjective nature of perceptions regarding the relative attraction. The area where the project takes place has been developed into a gravel road.		

BENEFITS:			
i.	Will the land use / development have any benefits for society in general?	YES **X**	NO
ii.	Explain:		
	• The Project will create an income stream for the business that will be operated within the proposed area to Collins Chabane Local Municipality and the Limpopo Province and the beneficiaries of the		

	project as well as those of the municipalities within the Vhembe District Municipality. • Contribution of the business to the coffers of Tax of the Government of the Republic of SA. • Acceleration of infrastructural developments in the area and the other rural underdeveloped areas. • Communities will benefit from the selection, appointment of casual employment that will take place as a result of construction and operation phase of the project. This employment will be executed in line with the necessary skills required during construction, from the beginning to the completion of construction. Labor-force requirements include (builders, plumbers, construction engineers, electricians, various trades men, electrical fitters, carpenters, tile layers, pipe fitters etc.).		
iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES **X**	NO
iv.	Explain:		
	It must be noted that this is a small project with limited activities (i.e. cultivation only), and will not impact significantly on job creation and employment as it will only provide limited number of jobs for the members in Ka-Dinga Village. However, as some members of the village are currently unemployed, the project will have a significant positive impact on their livelihoods through income generation. The South African agricultural industry is one of the driving forces behind South Africa's economy and continues to make a valuable contribution to the country's economy. This is due to its agricultural and industrial investments, foreign exchange earnings, its high employment and linkages with major suppliers. The agricultural industry makes an important contribution to employment, particularly in rural areas, with direct employment opportunities observed in the agricultural industry.		

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	National & Provincial	27 November 1998

(NEMA), 1998 (Act No. 107 of 1998 as amended).		
NEMA Environmental Impact Assessment Regulations (December 2014), as in April 2017	National & Provincial	7 April 2017
National Water Act 36 of 1998	National & Provincial	26 August 1998
National Environmental Management Biodiversity Act 10 of 2004	National & Provincial	2004
National Heritage Resources Act 25 of 1999	National & Provincial	1999
National Development Plan	National & Provincial	2012

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

Legislation, policy of guideline	**Description of compliance**	
National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998 as amended).	An application for Environmental Authorisation for the proposed development was submitted in terms of GNR 326 of NEMA EIA Regulations, 24 July 2017, promulgated under NEMA.	
NEMA Environmental Impact Assessment Regulations, as amended, GNR 326	To promote integrated environmental management, contents of this BAR adhere to the requirements of the amended EIA Regulations. Environmental Management Programme (EMPr) that the project will adhere to if authorisation is received. The Public participation followed thus far in undertaking this assessment.	
National Water Act 36 of 1998	An application for the determination of the need for a Water Use Licence Application (WULA) will been lodged.	
National Environmental Management Biodiversity Act 10 of 2004	The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) as	

	amended (NEMBA) including all the pertinent legislation published in terms of this act was considered in undertaking this Basic Assessment process. This included the determination and assessment of the fauna and flora prevailing in the proposed project and the handling thereof in terms of NEMBA.	
National Heritage Resources Act 25 of 1999	A heritage specialist was appointed to assess the impact of the project on the archaeological resources	
National Development Plan	The South African Government through the Presidency has published a National Development Plan (NDP). The Plan aims to eliminate poverty and reduce inequality by 2030. The Plan has the target of developing people's capabilities to improve their lives through education and skills development, health care, better access to public transport, jobs, social protection, rising income, housing and basic services, and safety. It proposes to implement the following strategies to address the above goals: 1. Creating jobs and improving livelihoods; 2. Expanding infrastructure; 3. Transition to a low-carbon economy; 4. Transforming urban and rural spaces; 5. Improving education and training; 6. Providing quality health care; 7. Fighting corruption and enhancing accountability; 8. Transforming society and uniting the nation.	

	9. The proposed project is therefore aligned with the goals of the NDP as it will create jobs and improve livelihoods.	
IDP	The Integrated Development Plan (IDP) for both Vhembe District and Collins Chabane Local Municipality talks of creating jobs and improving livelihoods; expanding infrastructure; transforming urban and rural spaces, etc	

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	NO **X**
If yes, what estimated quantity will be produced per month?		m^3

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

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

Will the activity produce solid waste during its operational phase?	YES **X**	NO
If yes, what estimated quantity will be produced per month?		m^3

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

The waste that will be generally produced is organic waste which is bio-degradable waste options such as recycling, composting, anaerobic digestion, physical treatment methods such as rendering, and heat treatment options such as pyrolysis will be considered during the operation phase of the project. Where these waste options are not applicable or when there is excess general waste it will be disposed at designated sites especially the Municipal Landfill site. Waste collection will be day once a week and in accordance with the specifications of the EMPr.

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

Bio-degradable waste options such as recycling, composting, anaerobic digestion, physical treatment methods such as rendering, and heat treatment options such as pyrolysis will be considered during the operation phase of the project.

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
		X

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
		X

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 **X**
If yes, what estimated quantity will be produced per month?		m^3
Will the activity produce any effluent that will be treated and/or disposed of on site?	Yes	NO **X**

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 **X**

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:

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
	X

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

YES	NO

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?

YES	NO
	X

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

YES	NO

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:

Noise associated with normal construction activities can be anticipated during the refurbishment and construction phase. This would include noise generated by earth moving equipment and other general construction activities. Construction activities will, as far as practically possible, be limited to normal working hours (Monday to Friday, 7am to 5pm). During the operational phase, noise will be generated by the tractors on site as well as trucks that collect products from the farm. The noise from these sources will be limited and all measures will be taken to ensure that the vehicles are serviced on a regular basis in order to ensure that no unacceptable noise levels occur. Noise levels will be kept within legislated limits for the area, in accordance with the requirements of the relevant national and local noise control statutes.

12. WATER USE

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

municipal	water board	Groundwater	river, stream, dam or lake	other	the activity will not use water
		X			

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:

5000 Litres	

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

YES	NO
X	

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

13. ENERGY EFFICIENCY

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

Energy is needed to provide the infrastructure with lighting and electricity. Energy-saving light bulbs will be fitted in all buildings and all electronic devices will be switched off when not in use. The processing plant also requires energy. The plant will be switched off during times that it is not in use in order to save energy. Some of the energy requirements of the site will be provided by an on-site generator.

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

No alternative energy sources have been included due to the relatively small energy demand of the proposed project

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

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

YES	NO
X	

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:	Farm Ireland 210 LT
	(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:	Agricultural
	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	NO **X**
Must a building plan be submitted to the local authority?	YES	NO **X**

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	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
	X					

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

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

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

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	**X**	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	**X**	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?

The proposed activity will have little or no impact on the area since the area has been previously cleared for agricultural purposes and now it's lying idle and alien invasion can be noticed. The proposed activity will rather enhance the socio-economic value of the site.

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:	The proposed will have little or no impact on the area since the area has been previously used for construction of gravel road and now it is lying idle and alien invasion can be noticed. The proposed activity will rather enhance the socio-economic value of the site. Furthermore, the site is in a rural area.

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	NO **X**
Archaeological or palaeontological sites, on or close (within 20m) to the site?	Uncertain	
If YES, explain:		
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:	No heritage materials were recorded during survey and no further mitigation measures are required. From a heritage resources management point of view, there was no objection about the development, provided adequate consultation with the residents takes place and that a management plan is in place to ensure their safety. The discovery of previously undetected subterranean heritage remains on the terrain must be reported to the Limpopo Heritage Authority or the archaeologist and may require further mitigation measures.	
Will any building or structure older than 60 years be affected in any way?	YES	NO **X**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO **X**

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)**
Limpopo Department of Economic development, Environment and Tourism **Postal address:** Private Bag X9484 Polokwane 0700 **Tell:** 015 293 8342	Yes
Department of Water and Sanitation, Limpopo Regional Office **Postal address:** P.O Box 9506 Polokwane 0700 **Tell:** 015 290 1200	No

Department of Rural Development and Land Reform **Postal Address**: Private Bag X9312 Polokwane 0700 **Tell:** 015 230 5100	No
Department of Agriculture and Rural Development **Physical Address:** 67 Biccard St, Polokwane Central, Polokwane 0700 **Tell:** 015 294 3000	No
Cooperative Governance, Human Settlements and Traditional Affairs **Postal address:** Private Bag X9485, Polokwane 0700 **Tell:** 015 284 5000	No
Collins Chabane Local Municipality **Postal address:** Private Bag X9271, Malamulele 0982 **Tell:** 015 851 0110	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?	**YES**	**NO**
	X	

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

The only comment received was from LEDET.

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 community raised the issues of creation of the employment, where will the labour be sourced, critical vegetation which might be removed to give away for the project and also on the issue of impact Management.

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):

Employment: Labourers will be sourced from the local community. **Critical Vegetation:** The specialist was appointed to advice the on the critically endangered species. From the site investigation done already by the EAP, the project is not going to affect any of the endangered species. **Impacts Management:** The EMPr address all mitigation measure that should be implement by the Principal Contactor or any person acting on behalf of the Client. Refer to Appendix F

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)

Direct impacts:

No direct impact are expected from the planning and design phase of the activity.

Indirect impacts:

No indirect direct impact are expected from the planning and design phase of the activity.

Cumulative impacts:

No cumulative impact are expected from the planning and design phase of the activity.

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)

The following parameters were used to describe the impact/issues in this assessment:

A. Nature

A brief written statement of the environmental aspect being impacted upon by a particular action or activity.

B. Extent

The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact.

- **Site (1)** – Within the construction site.
- **Local (2)** – Within a radius of 2 km of the construction site.
- **Regional (3)** – the scale applies to impacts on a provincial level and parts of neighbouring provinces.
- **National (4)** – the scale applies to impacts that will affect the whole South Africa.

C. Duration

Indicates what the lifetime of the impact will be.

- **Short-term (1)** – less than 5 years.
- **Medium-term (2)** – between 5 and 15 years.
- **Long-term (3)** – between 15 and 30 years.
- **Permanent (4)** – over 30 years and resulting in a permanent and lasting change that will always be there.

D. Intensity

Describes whether an impact is destructive or benign.

- **Very High (4)** - Natural, cultural and social functions and processes are altered to extent that they permanently cease.
- **High (3)** - Natural, cultural and social functions and processes are altered to extent that they temporarily cease.
- **Moderate (2)** - Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way.
- **Low (1)** - Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected.

E. Probability

Describes the likelihood of an impact actually occurring.

- **Improbable (1)** - Likelihood of the impact materialising is very low.
- **Possible (2)** - The impact may occur.
- **High Probable (3) - Most likely that the impact will occur.**
- **Definite (4) - Impact will certainly occur.**

F. Cumulative

In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

G. Significance

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

Low impact (4 - 6 points)	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
Medium impact (7 - 9 points)	Mitigation is possible with additional design and construction inputs.
High impact (10 - 12 points)	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very High impact (13 - 16 points)	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity

	which results in a "very high impact" is likely to be a fatal flaw.
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact.
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse.

H. Degree of confidence or certainty

It is also necessary to state the degree of certainty or confidence with which one has predicted the significance of an impact. For this reason, a 'degree of certainty' scale has been provided to enable the reader to ascertain how certain we are of our assessment of significance:

- **Definite** – More than 90% sure of a particular fact. The use this one will need to have substantial supportive data.
- **Probable** – Over 70% sure of a particular fact, or of the likelihood of that impact occurring.
- **Possible** – Only over 40% sure of a particular fact or of the likelihood of an impact occurring.
- **Unsure** – Less than 40% sure of a particular fact or the likelihood of an impact occurring.

Alternative 1 (preferred alternative): for the proposed establishment of Fumani Orchard Plantation			
Potential impacts: Construction Phase	**Significant rating of impacts**	**Proposed Mitigation Measures**	**Significant rating of impacts after mitigation**
1. Topography			
Cut and fill operations will permanently alter the topography and local drainage patterns. Topography will be impacted at both proposed dam area and entire pipes	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3) Likelihood: Definitely (4) Certainty: Probable	Ensure that drainage patterns along the Orchard and rehabilitated areas are: Free draining and do not create pools; Dispersed into adjacent grasslands regularly to avoid concentration of water in such a manner that it may contribute to erosion. Tie into the adjacent terrain.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible
Rating	**Collective Rating= 10**	**Rating**	**Collective Rating= 7**
2. Soils			
During construction of the Fumani Orchard Plantation	Temporal: Short-term (1)	Physical demarcation of the working area ahead of construction must be	Temporal: Short-term (1)

vegetation will be cleared, and soils excavated. The movement, handling, and exposure of soils will result in an increased risk of soil erosion. The movement of vehicle traffic onsite will result in the compaction of soils. Soil compaction prevents the successful re-establishment of vegetation. During the construction phase inadequate waste management may result in soil pollution. During excavation the mixing of soil substrates, and soil type will result in a reduction of soil fertility.	Spatial: Localised (2) Significance: High (3) Likelihood: Definitely (4) Certainty: Probable	undertaken to ensure that construction remains within the area to be disturbed. Access routes to / from / around the site will be designated prior to start of work. Should any evidence of soil contamination be discovered, appropriate measures should be taken to remediate the soil. (See hydrocarbons in surface water above). The temporary by-pass road where the offices and storage will be constructed must be rehabilitated as per the methodology outlined in the EMP after construction. Compacted soil must be ripped and suitably ameliorated to ensure the successful establishment of vegetation. Care must be taken during excavation and vegetation clearing to ensure that clay soils and sandy / silty soils are stockpiled separately and returned to their former position during rehabilitation. The location of soil stockpiles will be identified prior to construction and will not be in a position where they are likely to be washed away.	Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible
Ratings	**Rating=10**	**Ratings**	**Rating =7**
3.	**Geology**		
During construction, concrete footings will be excavated to support the Orchard infrastructures. The maximum depth of the excavations is unlikely to exceed 1.5m.	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3)		Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1)

Consequently, these excavations will not extend to the bedrock underlying the surface soils and thus no impact will be created.	Likelihood: Definitely (4) Certainty: Probable		Likelihood: May occur (3) Certainty: Possible
Ratings	**=7**	**Rating**	**=6**
4.	**Culture/Heritage/Archaeology**		
No archaeological, paleontological site, artifacts or feature exist on the existing site. No historical/cultural site, artifacts or feature exist on the existing site.	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3) Likelihood: Definitely (4) Certainty: Probable	During excavations should any archaeological or cultural materials be unearthed, all construction will be cease immediately, and appropriate authorities will be notified. In the event that human remains are unearthed the SAPS will also be notified; and the project manager will notify SAHRA/LIHRA and obtain permission to continue construction, through a qualified archaeologist.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible
Ratings	**=10**	**Rating**	**=7**
5.	**Fauna and Flora**		
During the construction phase the primary impacts to terrestrial ecology will be experienced as a result of vegetation clearing and habitat destruction. Removal of vegetation during construction. Aquatic ecology will be impacted by the temporary by-pass road constructed through the water course. The increased turbidity may affect a range of water quality parameters, thereby affecting the breading and foraging patterns of aquatic fauna. In areas disturbed by construction it can be	Temporal: Short-term (1) Spatial: Localised (2) Significance: high (3) Likelihood: Definitely (4) Certainty: Possible	Ensure that all post construction rehabilitation is undertaken as per the attached EMP. Ensure that the influx, establishment and spread of all alien invasive species are monitored and prevented. Demarcate the construction areas intended for clearing prior to construction, mark all other areas as “No Go” areas. Once rehabilitated eliminate vehicle or livestock traffic over these areas. Rehabilitated areas are not be grazed for a period of at least 2 years. Ensure that only indigenous vegetation is utilised during rehabilitation.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Possible

expected that alien invasive species will rapidly establish.			
Ratings	**=10**	**Ratings**	**=7**
6.	**Ground Water**		
No impacts to ground water are expected from the construction phase.	Temporal: Short-term (2) Spatial: Localised (0) Significance: high (1) Likelihood: May occur (0) Certainty:	No impacts to ground water are expected from the construction phase.	Temporal: Short-term (1) Spatial: Localised (0) Significance: high (0) Likelihood: May occur (0) Certainty:
Ratings	**= 3**	**Ratings**	**= 1**
7.	**Surface Water**		
Oil and grease spills from construction vehicles may enter the construction site resulting in surface water contamination by a hazardous substance. Accidental spillage of sewage and chemicals from temporary ablution facilities may enter the construction site and result in surface water contamination. Incorrectly managed stormwater may carry loose soils and gravels from exposed areas into the construction site. This may result in an increase in turbidity and sediment deposition downstream of the river crossing site. Uncontrolled extraction of surface water from the	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3) Likelihood: Definitely (4) Certainty: Probable	**Hydrocarbons** No storage of hydrocarbon permitted at the construction site, with the exception of a single diesel bowser for generators used for lighting purposes. A temporary "bund" area constructed of soil / inert construction waste will be constructed and lined with a suitable liner. Frequent inspections of vehicles and machinery will be undertaken to identify oil leaks / spills. Leaking machinery will be removed off site for maintenance purposes. No maintenance of vehicles or machinery will be undertaken onsite. In the event of fuel or hydrocarbon spillage, soil will be removed to a designated area for bioremediation with suitably recognized product designed for this purpose.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible

construction site during the construction phase may result in reduced water quantity downstream of the abstraction point. Downstream water users include stock watering, which may be negatively impacted. The insufficient management of waste may result in pollution of surface water resources.		**Sanitation / Ablution Facilities** Proper sanitation facilities must be made available for contractors. The contractor, in consultation with the Environmental Manager, shall compile a surface water drainage plan prior to commencement with construction. At least 1 toilet per 15 workers will be provided. A licensed contractor will be utilized to provide and service temporary ablution facilities. **Water abstraction** All water pumped from the construction site should be measured and recorded. The general authorization volume of water abstraction may not be exceeded on a monthly basis as per the Water use License. **Waste Management Measures** Ensure that all waste generated on site is sorted into appropriate containers. Waste bins should be emptied regularly and should never overflow. Waste must be removed by a suitably licensed contractor and disposed of at a licensed facility. Building rubble utilized in the construction of the concrete supports must be comprised of inert material. No burning / incineration of waste is to take place on the site.	
Rating	**=10**	**Rating**	**=7**

8.	**Air Quality**		
The source of air quality impacts are: • Gases and fumes from construction vehicles; and • Fugitive dust emissions from vehicle traffic traversing gravel roads. Neither pose significant health impacts, however fugitive dust emissions will pose a significant nuisance dust factor for the community living near the proposed construction site.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: Unlikely (2) Certainty: Possible	All construction vehicles should be regularly serviced and maintained to ensure minimal exhaust fume pollution. No cooking fires will be permitted on site. Exposed soils (i.e. soil stockpiles, gravel access roads, material laydown area) will be regularly watered to reduce wind-blown dust.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (1) Certainty: Possible
Ratings	**=7**	**Ratings**	**=5**
9.	**Noise**		
The noise generated during the construction phase will predominantly result from vehicle activity on site, as well as the operation of heavy machinery and other associated noises. The noise of vehicles and machinery will be heard by the community in the area. The noise impact will be high due to the proximity of the community and associated infrastructure.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Probably	Contractors will be required to wear the appropriate Personal Protective Equipment (PPE) during the construction phase such as masks, protection glasses, ear plugs, gloves, safety boots, and overalls. Ensure that all contractors have appropriate induction and safety training and understand the dangers to which they will be exposed. Contractors should be appropriately trained as to safe working procedures prior to commencing with work. Construction activities are to be limited to day light working hours. No construction crews are to be accommodated onsite after hours,	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible

		except for a night watchman. Activities generating noise to be carried out between 6 am – 6 pm (Monday to Saturday) only. Local visitors/tourist to be informed/notified that excessive noise levels are expected.	
Ratings	**=8**	**Rating**	**=7**
10.	**Aesthetic**		
The aesthetic characteristics associated with the proposed construction at the proposed site will continue during the construction phase. External lighting will affect the night time character of the area for local communities.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Probably	Construction activities and associated infrastructure to be shielded/concealed as far as possible. Construction activities are to be limited to day light working hours. No construction crews are to be accommodated onsite after hours, except for a night watchman. Low level and frequency lighting are to be utilized wherever possible.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (1) Certainty: Possible
Ratings	**=8**	**Rating**	**=5**
11.	**Traffic**		
During the construction phase the most significant impacts will be as a result of construction vehicles and heavy machinery on site. Pedestrian movement may be impacted by the vehicles that access and exit the area.	Temporal: Short-term (1) Spatial: Localised (2) Significance: high (3) Likelihood: May occur (3) Certainty: Probably	Ensure that adequate path/road diversions for visitors/tourist/pedestrians are installed during the construction phase.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (2) Certainty: Possible
Ratings	**=9**	**Rating**	**=7**
12.	**Socio-Economic**		
Due to the size of the project only a marginal positive economic impact is anticipated during the	Temporal: Short-term (1) Spatial: Localised (2)	It is recommended that the appointed contractor liaise with the Chief and affected residents to resolve the encroachment issue.	Temporal: Short-term (1) Spatial: Localised (2)

construction phase. There would be no marginal short-term increase in employment in the area due to the socio-economic profile of the area.	Significance: high (3) Likelihood: Definitely (4) Certainty: Possible		Significance: Moderate (2) Likelihood: May occur (3) Certainty: Possible
Ratings	**=10**	**Rating**	**=8**
13.	**Health and Safety**		
Tourists/pedestrians utilize the surrounding facilities extensively. Construction activities (moving vehicles and machinery) pose a significant safety risk. During the construction phase numerous people will have access to the site and this creates a potential safety and security risk. Explosion and fire risks. Except for fuel and oil used in construction equipment, no combustible materials will be used; therefore, increased risk of fire and explosion would be unlikely. Significant risks to public health and safety are not anticipated.	Temporal: Short-term (1) Spatial: Localised (2) Significance: high (3) Likelihood: May occur (3) Certainty: Probably	SHE officer will be placed on the site to make sure there is compliance in terms Construction Regulations 2014 (as mended)	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (1) Certainty: Possible
Ratings	**=9**	**Ratings**	**=5**

Alternative 1 (preferred alternative): DECOMMISSIONING; CLOSURE & OPERATIONAL PHASE			
Potential impacts: Decommissioning; Closure and Operational Phase	**Significant rating of impacts**	**Proposed Mitigation Measures**	**Significant rating of impacts after mitigation**

1.	**Topography**		
No Impacts from this project phases			
Rating	**Collective Rating= 0**	**Rating**	**Collective Rating= 0**
2.	**Soils**		
No Impacts from this project phases			
Ratings	**Rating=0**	**Ratings**	**Rating =0**
3.	**Geology**		
No Impacts from this project phases			
Ratings	**=0**	**Rating**	**=0**
4.	**Culture/Heritage/Archaeology**		
No Impacts from this project phases			
Ratings	**=0**	**Rating**	**=0**
5.	**Fauna and Flora**		
No Impacts from this project phases			
Ratings	**=0**	**Ratings**	**=0**
6.	**Ground Water**		
No Impacts from this project phases			
Ratings	**= 0**	**Ratings**	**= 0**
7.	**Surface Water**		
No Impacts from this project phases			
Rating	**=0**	**Rating**	**=0**
8.	**Air Quality**		
No Impacts from this project phases			
Ratings	**=0**	**Ratings**	**=0**
9.	**Noise**		
No Impacts from this project phases			
Ratings	**=0**	**Rating**	**=0**

10.	**Aesthetic**		
No Impacts from this project phases			
Ratings	**=0**	**Rating**	**=0**
11.	**Traffic**		
No Impacts from this project phases			
Ratings	**=0**	**Rating**	**=0**
12.	**Socio-Economic**		
Ratings	**=0**	**Rating**	**=0**
13.	**Health and Safety**		
No Impacts from this project phases			
Ratings	**=0**	**Ratings**	**=0**

SAMMARY of Impacts and points allocated for the Alternative 1 (preferred alternative)

No.	Potential impacts: Construction Phase	Points:	
		Significant rating of impacts	Significant rating of impacts after mitigation
1	Topography	10	7
2	Soil	10	7
3	Geology	7	6
4	Culture/Heritage/Archaeology	10	7
5	Fauna and Flora	10	7
6	Ground Water	3	1
7	Surface Water	10	7
8	Air Quality	7	5
9	Noise	8	7
10	Aesthetics	8	5
11	Traffic	9	7
12	Socio-Economic	10	8
13	Health and Safety	9	5
	AVARAGE	**111**	**79**

No-go alternative (compulsory)

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	NO
	X	

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:

Based on the findings of the Basic Assessment process for the proposed farming enterprise, it is recommended that this project be authorised, subject to the following conditions:

1) The EMPr of this proposed development must form part of the contractual agreement and be adhered to by

both the contractors and the applicant.
2) The recommendations of the Heritage and Ecological specialists, including avoiding the riparian vegetation
3) The applicant must ensure compliance with the conditions of the Environmental Authorisation and EMPr during all the phases of the project.
4) A Water Use Licence must be obtained from the Department of Water and Sanitation (DWS) for the water usage associated with the farming operations.

Monthly monitoring and evaluation of Fumani Orchard Plantation construction site for environmental compliance; progressive rehabilitation of site when the activity has been completed and implementation of the environmental awareness plan and verification thereof. All the reasonable precautions will be taken into consideration to minimise the impact the construction site. The compliance with all legal requirements in relation to environmental management and conditions of the environmental authorisation (EA) issued by LEDET.

It is the opinion of the EAP that the proposed enterprise will comply with current relevant environmental legislation, and that with the implementation of the mitigation measures suggested in this BAR, there are no negative environmental impacts of high significance identified after mitigation.

An ecological assessment was conducted to inform the BA to ensure that the proposed layout avoids areas of high sensitivity. Based on the above, it is therefore recommended that the proposed development be granted Environmental Authorisation.

Is an EMPr attached?	YES **X**	NO

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

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Macebele T** 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:

Biomental Services
Name of company:

June 2022

Date: