GAUTENG PROVINCE
AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1/2022)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.

2. This template is current as of April 2022. It is the responsibility of the EAP to ascertain whether subsequent versions of the template have been published or produced by the competent authority.

3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.

4. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at https://eia.gauteng.gov.za.**

5. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can be accessed at https://eia.gauteng.gov.za.**

6. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**

7. 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.

8. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.

9. An incomplete report may lead to an application for environmental authorisation or Waste Management License being refused.

10. Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorization or Waste Management License being refused.

11. The use of “not applicable” in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation or Waste Management License being refused.

12. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.

13. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.

14. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Ground floor, Umnotho House, 56 Eloff Street, Johannesburg

Administrative Unit telephone number: (011) 240 3051/3052
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:						
File Reference Number:						
Application Number:						
Date Received:						

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

N/A

Is a closure plan applicable for this application and has it been included in this report? No

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

The cattle feedlot development will not include a closure plan as the proponent does not foresee the decommissioning of the proposed development.

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

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

~~If no, state reasons for not attaching the list.~~

Have State Departments including the competent authority commented? No

If no, why?

The draft BA report was submitted alongside the application form. The period for comments will commence once the draft BAR has been circulated to all the Interested and Affected Parties.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

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

Proposed cattle feedlot on Portion 38 of the Farm Sterkfontein 424-IR, Meyerton, Gauteng Province.

Select the appropriate box

~~The application is for an upgrade of an existing development~~		The application is for a new development	X	~~Other, specify~~	

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

YES	~~NO~~

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

NWA: Section 21 (ACT NO. 36 of 1998), as amended.

The proposed development will utilise a stream to supply water for the cattle feedlot and use two boreholes for potable water. The activities related to the proposed development will trigger licensing in terms of the National Water Act, 1998. Application for the following activities will be required:

21 (a) Taking water from a water resource
21 (f): Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit.
21 (g): Disposing of waste in a manner which may detrimentally impact on a water resource.

Competent authority who administers such legislation will be the Department of Water and Sanitation.

If yes, have you applied for the authorisation(s)?	**YES**	~~NO~~
If yes, have you received approval(s)? (attach in appropriate appendix)	~~YES~~	**NO**

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended). **NEMA: Listing Notice 1 (NO. 327, 07 APRIL 2017)** **4 (i)** - The development and related operation of facilities or infrastructure for the concentration of animals [for the purpose of commercial production] in densities that exceed— (i) 20 square metres per large stock unit and	Provincial	07 April 2017

more than 500 units per facility. --- **8** - The development and related operation of hatcheries or agri-industrial facilities outside industrial complexes where the development footprint covers an area of 2 000 square metres or more --- **27** - The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation **NEMA: Listing Notice 3 (NO. 324, 07 APRIL 2017)** **12(c)(ii)** - The clearance of an area of 300 square metres or more of indigenous vegetation. (c) Gauteng (ii) Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans;		
National Water Act, 1998 (Act No. 36 of 1998) NWA: Section 21 (ACT NO. 36 of 1998), as amended 21 (a) Taking water from a water resource 21 (f): Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit. 21 (g): Disposing of waste in a manner which may detrimentally impact on a water resource.	Provincial	1998

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

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended). **NEMA: Listing Notice 1 (NO. 327, 07 APRIL 2017)** **4(i)** - The development and related operation of facilities or infrastructure for the concentration of animals [for the purpose of commercial production] in densities that exceed— (i) 20 square metres per large stock unit and more than 500 units per facility. --- **8** - The development and related operation of hatcheries or agri-industrial facilities outside industrial complexes where the development footprint covers an area of 2 000 square metres or more --- **27** - The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation **NEMA: Listing Notice 3 (NO. 324, 07 APRIL**	According to the National Environmental Management Act, 1998 (Act No. 107 of 1998) EIA Regulations, 2014, it is required to follow the process of a Basic Assessment Report due to activities triggered within Listing Notices 1 and 3. The BA process is being followed in accordance with EIA regulations in order to comply with the NEMA.

2017) **12(c)(ii)** - The clearance of an area of 300 square metres or more of indigenous vegetation. (c) Gauteng (ii) Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans;	
National Water Act, 1998 (Act No. 36 of 1998) **NWA: Section 21 (ACT NO. 36 o199)** as amended. 21 (a) Taking water from a water resource 21 (f): Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit. 21 (g): Disposing of waste in a manner which may detrimentally impact on a water resource.	According to Section 21 of the NWA (Act No. 36 of 1998) it is a requirement that a water use license (WUL) is obtained for listed activities. The proposed development triggers some of these activities and the process of obtaining a WUL is currently underway. Refer to F for proof of application process.

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment.

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

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

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

The proposed development is for an agricultural development of a new cattle feedlot covering an area of approximately 6 hectares on a farm of more than 100 hectares. The proposed site is situated approximately 25 km east of Meyerton and approximately 30 km south west of Heidelberg. The site falls under the Midvaal local Municipality within the Gauteng Province.

The proposed cattle feedlot will consist of the following facilities/infrastructure:

- Feedlot pens to accommodate 3000 cattle at 9 – 15 m^2 per animal;
- Handling facility with offload, on-load, handling, receiving and sorting areas at 2m^2 per animal;
- Manure lagoons and stockpile area;
- Reservoirs that can be used for dust suppression;
- Feed trough and aprons, water trough and shades;

Feedlot Water Management:

The supply of cool, clean, good-quality water is essential for high-density cattle production. The water requirement for cattle is calculated as: 50 litre per LSU per day: 50 litre x 3000 x 365 days =

54 750 000 m^3 / year.
Water provision for the cattle will be sourced from a nearby stream (54 750 000 m^3 / year) and potable water from two boreholes on site and will require 1 950 m^3 of water per year. The feedlot operational functions include only the buying, raising and selling of cattle, no slaughtering of animals will occur on site.

Drinking water will be supplied in a trough and placed off the ground. This ensures keeping the water clean and free of livestock secretions. Water abstracted from an allocated stream will satisfy the water supply need. The operational activities for the proposed feedlot facility will require authorisation in terms of Section 21 of the National Water Act. The proponent is in the proses of submitting a water use licenses application to the Department of Water and Sanitation (DWS) (refer to Appendix F).

Feedlot waste management:

Organic waste produced by the proposed development's operation will be a mixture of manure and soil, forming a biodegradable by-product. According to Font-Palma (2019), healthy feedlot cattle produce manure equivalent to 5-6% of their body weight per day. The proposed cattle feedlot production scheme aims to introduce new cattle every four months with a starting weight of 250 kg and an exit weight of 500 kg. Calculated as the average between the two weight classes, each Large Stock Unit (LSU) will produce 562.5 kg manure per month. The concentrated quantities of manure resulting from high-density livestock farming often lead to the proliferation of unwanted pest insects such as flies. To mitigate this, probiotics will be introduced into the livestock feed and will be sprayed onto the feedlots to limit the proliferation of unwanted pests.

The feedlots will be cleaned each month which involves the mechanical removal of manure. The collected waste will be transported to a temporary storage/drying area lined by an impenetrable material, preventing seepage into the ground. The dried manure will be used as fertiliser on the surrounding cultivated fields.

Mortalities will be immediately removed from the feedlot and will be donated to the local lion farms. Here the mortalities will be fed to the various carnivores.

Stormwater management:

A stormwater layout plan has been compiled and is attached (see Appendix C). The mentioned stormwater management plan will conform to industry best practice design. The stormwater network will redirect runoff from the feedlots into a two sedimentation ponds, trapping solid waste before entering the evaporation pond (waste lagoon). Both the sedimentation pond and waste lagoon will be lined by a clay material, preventing seepage. The accumulated solids within the sedimentation pond will be cleaned when it reaches its capacity. Waste from the sedimentation pond will be transported to the manure storage area to dry out and eventually used as fertiliser. The water within the evaporation pond (waste lagoon) will dry naturally and eventually be used as fertiliser in the surrounding cultivated fields.

Dimensions of the sedimentation dams are as follows:
Temporary manure storage area: 50 m x 29 m = 1 000m^2.
Sedimentation dams (x2): 50 m x 50 m x 3.2 m deep. Volume = 8 000m^3.

The proposed cattle feedlot will be an agricultural development within an area zoned for Agriculture. The surrounding land use is mainly agriculture and therefore the proposed activity is in line with the land use zoning. The proposed area for the cattle feedlot is ideal for this purpose as it is slightly sloped which is good for waste run-off management and will reduce the effect of visual impacts to neighbouring residents.

Provide a description of the alternatives considered

No.	**Alternative type**, either alternative: site on property,	**Description**

	properties, activity, design, technology, energy, operational or other (provide details of “other”)	
1	Proposal	The study area has undulating topography with a few surrounding hills, rising above the average topography. A general slope from north to south is prevalent as Suikerbosrand River is located approximately 4km south of the project site. Two tributaries form the southern and eastern boundary of the farm, which drains towards the south. The hills to the west and southwest of the project area screens most of the zone of visual impact (ZVI) in that direction, but expansive views are potentially possible towards the north, east and south. This can be attributed to the site’s relatively elevated location and the descending topography along the tributaries.
2	Alternative 1	The applicant could consider diversified livestock farming such as raising other types of livestock such as sheep, goats, pigs or poultry alongside cattle to provide a more diverse income stream and optimise land use. The alternative has been deemed not feasible as the applicant prefers to only raise cattle and has a client list expecting to purchase cattle and not other livestock. **For the reasons just mentioned this alternative will not be investigated further.**
3	Alternative 2	The feedlot design could be a monoslope which features a single-sloped roof over the cattle pens, providing shade and protection from the elements. This alternative has been assessed and it was decided by the EAP, contractors and applicant that an open-air feedlot would be the optimal design. This consists of a simple approach where cattle are set up in an open area with adequate shade structures. **For the reasons just mentioned this alternative will not be investigated further.**
4	Alternative 3	Alternative locations on the property have been assessed (refer to the map below). The preferred option (option 2) has been chosen according to careful evaluation of the specialists’ opinions and recommendations regarding the best suitable options in terms of site sensitivity and environmental impact. **For the reasons just mentioned this alternative will not be investigated further.** 
5	Alternative 5	Grass-fed beef production could be an option which focus on cattle on pasture and utilization of rotational grazing systems. This approach emphasizes natural forage consumption and avoids intensive confinement of feedlots. It is the preferred choice of the applicant to continue with the cattle

		feedlot due to limited grazing pastures for the preferred amount of livestock production. **For the reasons just mentioned this alternative will not be investigated further.**

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

N/A

4. PHYSICAL SIZE OF THE ACTIVITY

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

	Size of the activity:
Proposed activity ***(Total environmental (landscaping, parking, etc.) and the building footprint)***	6 ha
Alternatives:	
Alternative 1 (if any)	N/A
	Ha/ m^2

~~or, for linear activities:~~

	~~**Length of the activity:**~~
Proposed activity	~~N/A~~
Alternatives:	
Alternative 1 (if any)	N/A
	~~m/km~~

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

	Size of the site/servitude:
Proposed activity	N/A
Alternatives:	
Alternative 1 (if any)	N/A
	~~Ha/m^2~~

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?	YES	~~NO~~
If NO, what is the distance over which a new access road will be built		~~m~~

Describe the type of access road planned:

N/A

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

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?	~~YES~~	~~NO~~
If NO, what is the distance over which a new access road will be built		~~m~~

Describe the type of access road planned:

N/A

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

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

Section A 6-8 has been duplicated	**No**	~~Number of times~~

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

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

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
  - A4 size for activities with development footprint of 10sqm to 5 hectares;
  - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
  - A2 size for activities with development footprint of >20 hectares to 50 hectares);
  - A1 size for activities with development footprint of >50 hectares);

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

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

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix B**.** It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

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

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

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

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

Section B has been duplicated for sections of the route	**0**	times

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

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

Section B has been duplicated for location/route alternatives	**0**	time s	(complete only when appropriate)

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

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

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

Section B - Section of Route	~~N/A~~	(complete only when appropriate for above)
Section B – Location/route Alternative No.	~~N/A~~	(complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description: (Including Physical Address and Farm name, portion etc.)	The proposed establishment of the cattle feedlot is situated on Portion 38 of the Farm Sterkfontein 424-IR and falls within the town of Meyerton, Gauteng Province. The development is surrounded by similar agricultural activities and due to the nature of the proposed development, it will blend in.

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Proposal:	**Latitude (S):**	**Longitude (E):**
	26°37'9.90" S	28°10'36.18" E

~~**In the case of linear activities:**~~		
~~**Alternative:**~~	~~**Latitude (S):**~~	~~**Longitude (E):**~~
~~• Starting point of the activity~~	~~0~~	~~0~~
~~• Middle point of the activity~~	~~0~~	~~0~~
~~• End point of the activity~~	~~0~~	~~0~~

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

Addendum of route alternatives attached	~~N/A~~

The 21 digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	0	1	R	0	0	0	0	0	0	0	0	0	4	2	4	0	0	0	3	8
~~**ALT. 1**~~																					
~~**ALT. 2**~~																					

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

~~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~~

4. LOCATION IN LANDSCAPE

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

~~Ridgeline~~	~~Plateau~~	**Side slope of hill/ridge**	~~Valley~~	~~Plain~~	~~Undulating plain/low hills~~	~~River front~~

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

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

b) are any caves located on the site(s) | ~~YES~~ | NO

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

~~Latitude (S):~~	~~Longitude (E):~~
~~0~~	~~0~~

c) are any caves located within a 300m radius of the site(s) | ~~YES~~ | NO

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

~~Latitude (S):~~	~~Longitude (E):~~
~~0~~	~~0~~

d) are any sinkholes located within a 300m radius of the site(s) | ~~YES~~ | NO

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

~~Latitude (S):~~	~~Longitude (E):~~
~~0~~	~~0~~

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)? | ~~YES~~ | NO

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

7. GROUNDCOVER

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

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

Natural veld - good condition % = 5	Natural veld with scattered aliens % = 15	Natural veld with heavy alien infestation % = 45	~~Veld dominated by alien species % = 0~~	~~Landscaped (vegetation) % = 0~~
~~Sport field % = 0~~	Cultivated land % = 30	~~Paved surface (hard landscaping) % = 0~~	Building or other structure % = 5	~~Bare soil % = 0~~

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

Are there any rare or endangered flora or fauna species (including red list species) present on the site. | ~~YES~~ | NO

If YES, specify and explain:

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.	~~YES~~	**NO**

If YES, specify and explain:

N/A

Are there any special or sensitive habitats or other natural features present on the site?	~~YES~~	NO

If YES, specify and explain:

N/A

Was a specialist consulted to assist with completing this section	**YES**	~~NO~~

If yes complete specialist details

Name of the specialist:	Mokgatla J. Molepo (Pr. Sci. Nat)		
Qualification(s) of the specialist:	Principal Ecologist MSc Zoology - Nelson Mandela University SACNASP- Professional Advisory Committee (Reg No. 009509) British Ecological Society - BES (Reg No. 1010709) Member of Birds and Renewable Energy Specialist Group (BARESG) Member of Gauteng Wetland Forum Zoological Society of Southern Africa (ZSSA) (Memb. No. 691)		
Postal address:	317 Albertus St, La Montagne, Pretoria,		
Postal code:	0184		
Telephone:	081 410 3763	Cell:	076 559 7692
E-mail:	mokgatlajm@gmail.com	Fax:	-

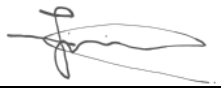
Are any further specialist studies recommended by the specialist?	**YES**	~~NO~~

If YES, specify:	Wetland delineation assessment.

If YES, is such a report(s) attached?	**YES**	~~NO~~

If YES list the specialist reports attached below

Wetland delineation report

Signature of specialist (Mader van den Berg):		Date:	05/07/2023
Signature of specialist (Lloyd Rossouw):		Date:	19/07/2023
Signature of specialist (Mokgatla Molepo):		Date:	02/08/2023

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

8. LAND USE CHARACTER OF SURROUNDING AREA

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

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

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

NORTH

1	1	5	1	1
1	1	5	7	7
7	7	5	7	7
7	7	1	7	7
1	1	1	1	1

WEST EAST

SOUTH

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

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

Have specialist reports been attached	YES	~~NO~~

If yes indicate the type of reports below

1. Phase one Heritage Assessment	2. Terrestrial Ecology Assessment
3. Wetland Delineation Assessment	4. Visual Impact Assessment

9. SOCIO-ECONOMIC CONTEXT

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

Socio-Economic Characteristics:

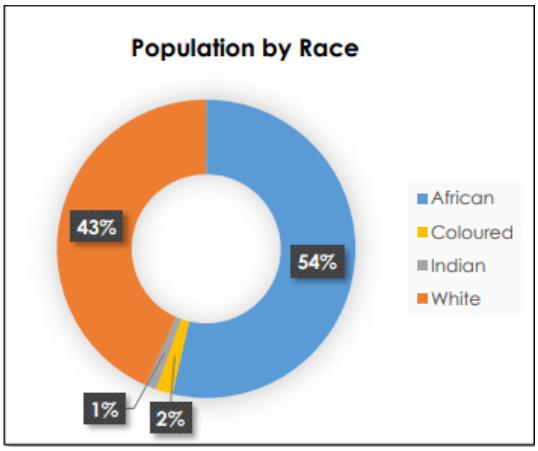
This section describes the socio-economic profile for the region within which the proposed development will take place. The Socio-economic environment is defined within this section with specific reference to social, cultural and heritage related aspects.

Locality and setting

The development of the Cattle feedlot is situated within Meyerton which falls under Midvaal Local Municipality (MLM). MLM is considered a Category B municipality. It comprises 15 wards and is one of three local municipalities which constitute the Sedibeng District Municipality. The other two are the Emfuleni Local Municipality and the Lesedi Local Municipality.

Municipal population statistics

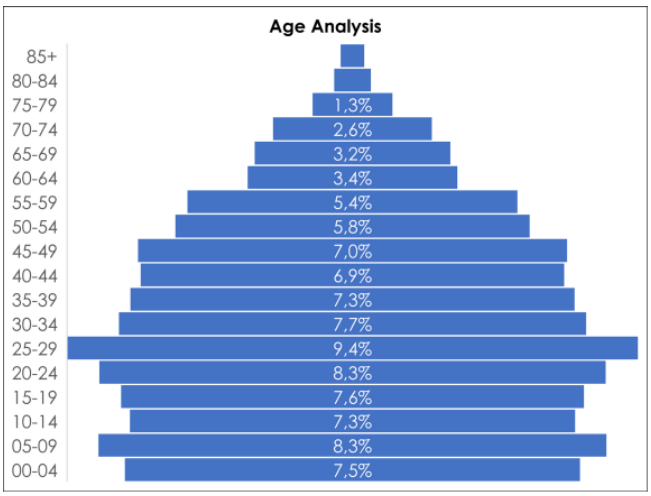
As of 2016, Midvaal has a population of 111 612, from a base of 95 301 in 2011. The number of households has also grown significantly from a base of 29 964 to 38 046 as of 2016. The racial profile of the Midvaal population is largely dominated by African black and white populations, together making up more than 90% of the population.



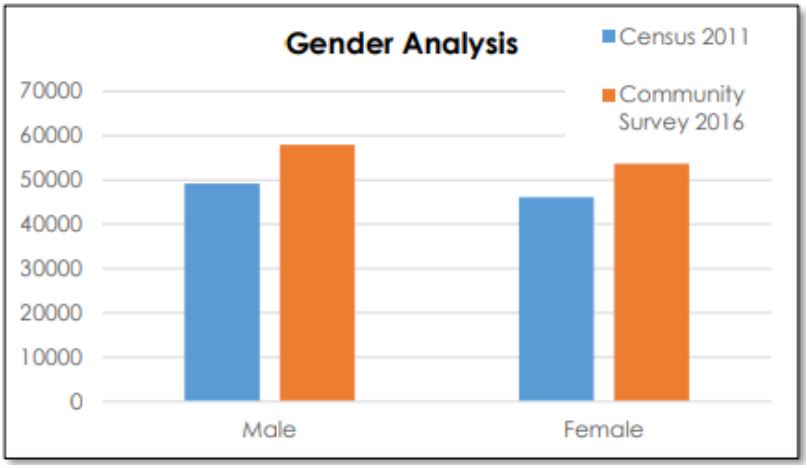
Racial Profile of Midvaal Population (StatsSA Community Survey 2016).

Age and gender composition

The age profile of the population falls largely within the youth group which is approximately 58% of the total population. In addition, approximately 70% of the population falls within the working age group (people aged between 15 and 64). The gender profile of Midvaal marginally favors males over females; 52% of the population is male and only 48% is female (as per 2016). This is consistent with the profile as per 2016 with less than 1% shift in profile since 2011.



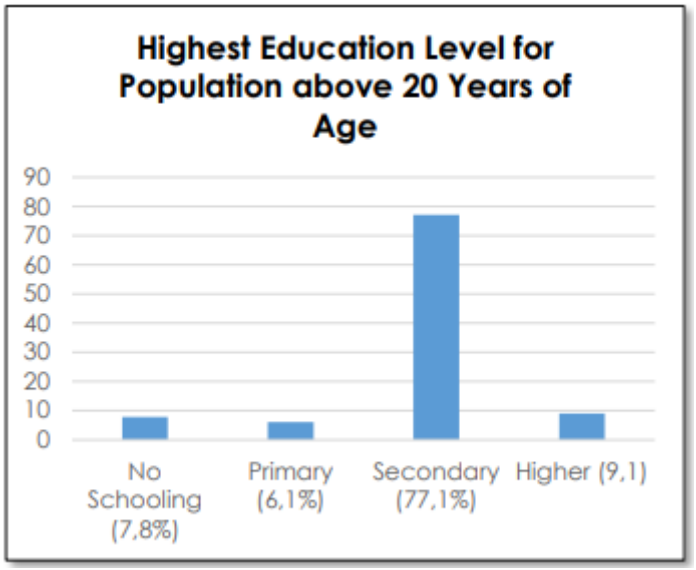
Midvaal Age Profile (Source: Community Survey 2016).



Gender Profile of Midvaal (Stats SA Census 2011 & Community Survey 2016)

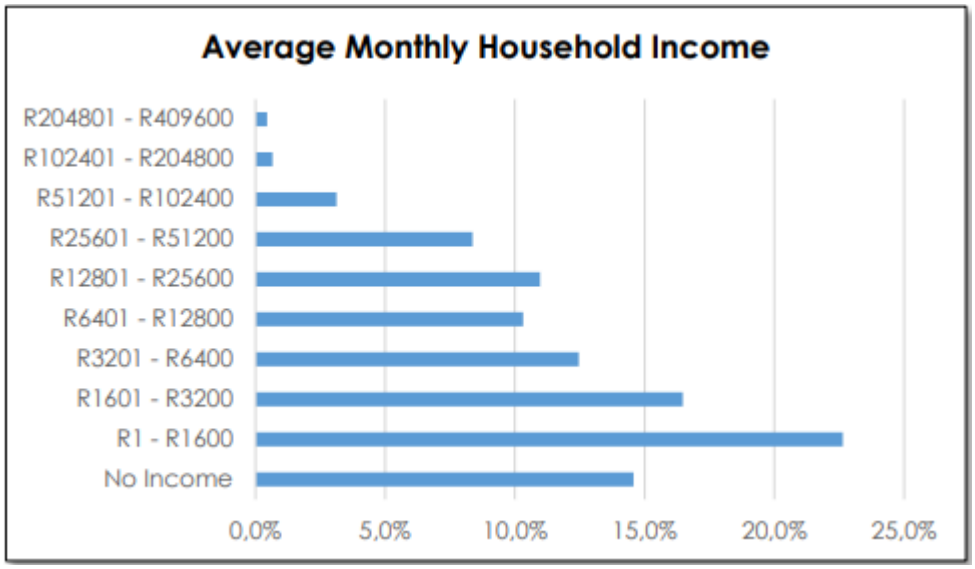
Educational and employment demographics

The educational profile of the Midvaal area is biased largely towards those who have had some form of secondary education and upwards, amounting to 82% of the total population, with 9.1% of the population having attended higher learning.



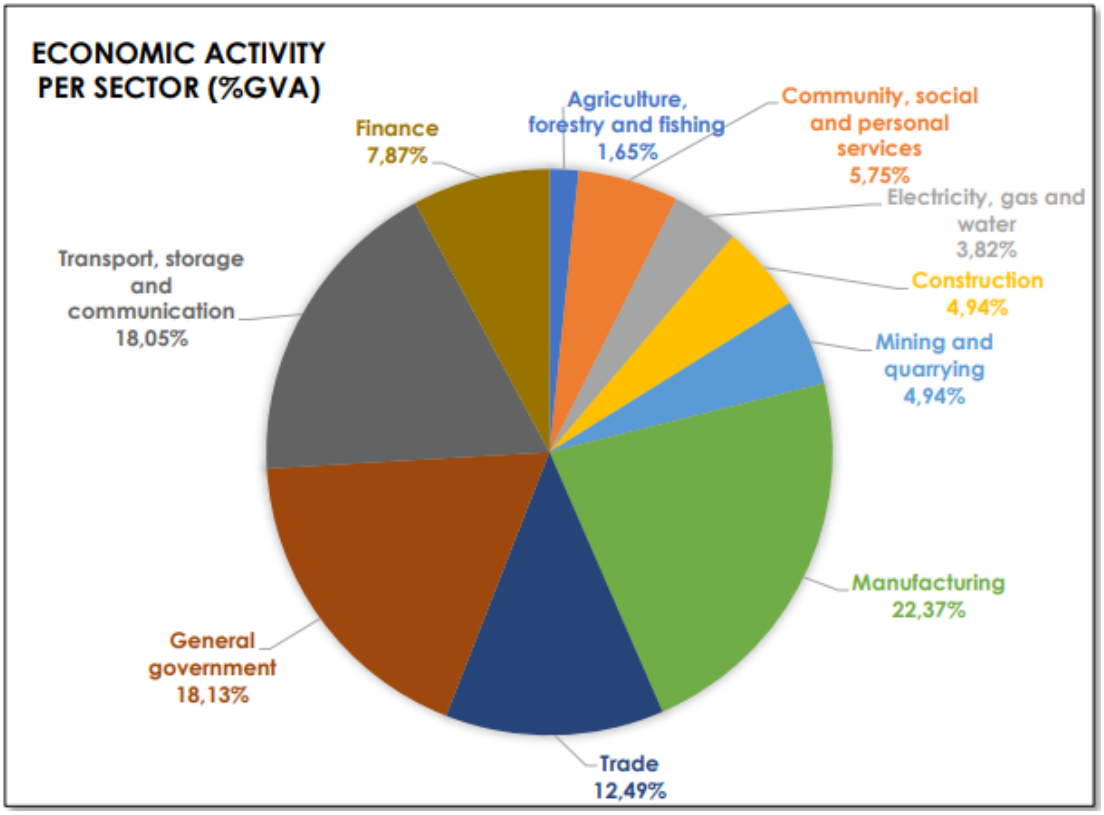
Educational Profile of Midvaal (Stats SA Community Survey 2016).

There is a broad distribution of income across the households in Midvaal with the largest portion of householdings within the R21 350–R42 698 per annum bracket. Significantly, 13,9% of all households earn no income.



Educational Profile of Midvaal (Stats SA Census 2011).

Economic characteristics



Economic activity by sector (Midvaal Economic Analysis 2021).

As seen in the figure above, the pillars of the local economy are manufacturing, general government, transport, storage and communication, and trade. These sectors contribute cumulatively 71.04% of Gross Value Added (GVA) to the local economy. In terms of average sectoral growth, Midvaal's strongest sectors included mining and quarrying (6,88%), construction (5,31%) and transport and logistics (4,43%). Midvaal has mainly agricultural and rural/township land with important natural structures and conservation areas. The manufacturing sector is the best-performing sector and has a relatively high comparative advantage. Agricultural activities could be increased significantly by promoting the efficient use of vast arable land, this sector could further stimulate other high growth. Industrialization remains a key intervention to transition the Midvaal economy towards higher value-added activities and technological innovation, particularly for advanced manufacturing activities.

10. CULTURAL/HISTORICAL FEATURES

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

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

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50m in length;

(c) any development or other activity which will change the character of a site-

(i) exceeding 5 000 m2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources
authority;
(d) the re-zoning of a site exceeding 10 000 m2 in extent; or
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

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

If YES, explain:

N/A

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

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

A Phase 1 Heritage Impact Assessment was carried out for a proposed new cattle feedlot development on farm Sterkfontein 424 IR near Meyerton, Gauteng Province. The study area is situated on sloping terrain where palaeontologically insignificant Witwatersrand Supergroup rocks are entirely capped by well-developed, and geologically recent soils. Exposed sections indicate homogenous and culturally sterile soil profiles with no potential for Quaternary vertebrate fossils preservation. There is also no above ground evidence of *in situ* Stone Age archaeological material distributed as surface scatters on the landscape, prehistoric structures, graves or historically significant buildings older than 60 years within the boundaries of the study area. The proposed development will directly affect a well-developed, unconsolidated soil overburden, not considered to be paleontologically sensitive. The site is regarded as of low archaeological significance and is assigned a rating of Generally Protected C. As far as the archaeological and palaeontological heritage is concerned, the proposed development may proceed with no additional heritage assessments necessary, provided that all excavation activities are restricted to within the boundaries of the demarcated area. In the unlikely event that anomalous objects or structures are uncovered within the soil overburden during the construction or operational phase of the project, a heritage specialist must be called in to confirm their validity and record the finds. Finds should not be washed or cleaned in any way and in situ material must be kept in place and protected from further damage by covering it with light but rigid object until further confirmation by the heritage specialist.

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**

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

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?	**YES**	~~NO~~
If yes, has any comments been received from the local authority?	~~YES~~	**NO**

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

N/A

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

This is the draft report and local authority is yet to send comments.

3. CONSULTATION WITH OTHER STAKEHOLDERS

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

Has any comment been received from stakeholders?	~~YES~~	**NO**

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

N/A

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

No stakeholders have been identified for the proposed development.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be

captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

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

Appendix 3 – Proof of newspaper advertisements

Appendix 4 –Communications to and from interested and affected parties

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

Section D has been duplicated for alternatives	**0**	Times	(complete only when appropriate)

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

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES**	~~NO~~
If yes, what estimated quantity will be produced per month?	2 .05 m^3	
How will the construction solid waste be disposed of (describe)?		

- On the construction site, waste materials are usually separated into different categories to facilitate recycling and proper disposal. Common categories include wood, metal, concrete, plastics, and general debris.
- Many construction materials, such as metal, concrete, wood, and cardboard, can be recycled. Recycling these materials reduces the amount of waste going to landfills and conserves natural resources.
- Some materials, like salvaged wood and metal, can be reused in future construction projects. Reusing materials reduces the demand for new resources.
- Materials that cannot be recycled or reused are typically sent to a landfill. However, efforts are made to minimize the amount of waste sent to landfills due to environmental concerns.
- Implement a waste management plan that outline how waste will be handled, recycled, and disposed of.

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

The nearest registered landfill site, Henley / Midvaal Dumping Site.

Will the activity produce solid waste during its operational phase?	**YES**	~~NO~~
If yes, what estimated quantity will be produced per month?	7.9m^3	

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

Organic waste produced by the proposed development's operation will be a mixture of manure and soil, forming a biodegradable by-product. According to Font-Palma (2019), healthy feedlot cattle produce manure equivalent to 5-6% of their body weight per day. The proposed cattle feedlot production scheme aims to introduce new cattle every four months with a starting weight of 250 kg and an exit weight of 500 kg. Calculated as the average between the two weight classes, each LSU will produce 562.5 kg manure per month. The concentrated quantities of manure resulting from high-density livestock farming often lead to the proliferation of unwanted pest insects such as flies. To mitigate this, probiotics will be introduced into the livestock feed and will be sprayed onto the feedlots to limit the proliferation of unwanted pests.

The feedlots will be cleaned each month which involves the mechanical removal of manure. The collected waste will be transported to a temporary storage/drying area lined by an impenetrable material, preventing seepage into the ground. Manure stockpiles will be covered with a 50% shade net until dry. The dried manure will be used as fertiliser on the surrounding cultivated fields.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?	~~YES~~	**NO**

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

The nearest registered landfill site, Henley / Midvaal Dumping Site.

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	~~YES~~	**NO**

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?	~~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.

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

General waste such as feed bags, plastic and other common household waste items will likely be disposed of into the municipal waste stream. Recycling is an option the proponent might consider, however typically feedlot operations don't generate much general waste compared to industrial developments. Feedlot operations do typically produce relatively large volumes of manure and other organic waste in the form of animal excretions.

In the context of South African environmental law, manure produced in cattle feedlots may be considered waste under certain circumstances. The National Environmental Management: Waste Act, 2008 (NEMWA) defines waste as "any substance, whether or not that substance can be reduced, re-used, recycled and recovered—(a) that is surplus, unwanted, rejected, discarded, abandoned or disposed of; or (b) which the generator has no further use of for the purposes of production, re-use or consumption."

If manure generated in cattle feedlots meets the criteria of being surplus, unwanted, discarded, or having no further use for the purposes of production, re-use, or consumption, it can be classified as waste under NEMWA. However, it is important to note that the classification of manure as waste may depend on various factors, including the management practices, the scale of the feedlot operation, and the intended use or disposal of the manure.

The solid waste on this site planned to be a mixture of manure and soil forming a biodegradable by-product. This product will temporarily be stored in the designated storage facilities from where it will be used as fertilizer on cultivated lands. The temporary storage facility for the manure will be properly managed to limit its footprint area and mitigate the odour as far as possible.

In order to harness the economic value of manure, to enhance the health of cattle and to reduce the generation of dust, the manure-soil mixture can be removed from the feedlot pens, and thus has necessitated the establishment of a temporary manure storage facility.

Any medical waste as a result of veterinarian activity on site, such as medicine bottles and syringes, can be dispatched to a medical waste facility in Gauteng.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	~~YES~~	**NO**
If yes, what estimated quantity will be produced per month?	~~m^3~~	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?	~~YES~~	~~NO~~

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

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

N/A

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

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

~~If yes, provide the particulars of the facility:~~

~~Facility name:~~ ~~N/A~~

~~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:

Waste water will be the mixture of water runoff and manure which will be diverted to sedimentation dams where sedimentation will occur and thereafter to the temporary storage area for it to dry and be transported to be distributed to the surrounding crop fields.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	~~YES~~	**NO**
If yes, what estimated quantity will be produced per month?	~~m^3~~	
If yes, has the municipality confirmed that sufficient capacity exists for treating / disposing of the domestic effluent to be generated by this activity(ies)?	~~YES~~	**NO**

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

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

Domestic sewage will be produced by staff using the toilet facilities installed at the office at the feed storage area. A septic tank will be installed with a French drain overflow system where the effluent will be disposed of. External waste removal companies will be appointed to pump out the septic tank as required.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	~~YES~~	**NO**
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:

The emissions released during the operational phase is typical to emissions produced and released during the operational phases of cattle feedlot activities, which is considered to be under the threshold and will not trigger activities which would require licensing in terms of NEM:AQA.

2. WATER USE

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

~~municipal~~	~~Directly from water board~~	**groundwater**	**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:	23 850 m^3

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?	**YES**	~~NO~~

If yes, list the permits required

The proponent is in the proses of submitting a water use licenses application to the DWS. The following activities have been applied for:

21 (a) Taking water from a water resource
21 (f): Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit.
21 (g): Disposing of waste in a manner which may detrimentally impact on a water resource.
Refer to appendix F for proof of application and progress.

If yes, have you applied for the water use permit(s)?	**YES**	~~NO~~
If yes, have you received approval(s)? (attached in appropriate appendix)	~~YES~~	**NO**

3. POWER SUPPLY

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

Renewable energy source: Solar

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

N/A

4. ENERGY EFFICIENCY

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

The proponent intends to utilise any renewable power generation on his farm. However, considering the small amount if energy a typical cattle feedlot utilises, it would be the most sustainable and optimal option.

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

N/A

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

As this is the draft BAR, no issues have been raised so far. Comments received during the public participation period will be addressed and incorporated into the final BAR.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)
(A full response must be provided in the Comments and Response Report that must be attached to this report):

N/A

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

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

Management and risk assessment plays a key role in the proponent's business. Managing the risks must be integrated into day-to-day business-related processes to ensure that both operational and strategic decisions are risk-based. The risk management system provides a framework to identify both threats and opportunities. The system then compensates and initiates resources that are allocated to treat the risks. It is required to review the risks as an ongoing process and then proceed to review the efficacy of the controls.

The risk assessment comprises quantifying the magnitude of potential impacts and the likelihood of these impacts to occur. The Consequence (C) and Likelihood (L) matrix combine the qualitative and or semi-quantitative ratings of consequence and the likelihood that a specific consequence will occur to calculate a risk score and risk rating (Equation 1). Essentially, the greater the probability of an adverse impact occurring, the greater the risk level associated with it will be.

C = Overall consequence
L = Likelihood of occurrence

Equation 1: Calculation of environmental significance.

$$Environmental\ Significance = C \times L$$

Determination of consequence:

Consequence analysis is a combination of quantitative and qualitative information, and the outcome can be positive or negative. Several factors can be used to determine consequence. For the purpose of determining the environmental significance in terms of consequence, the following factors were chosen: **Severity/Intensity, Duration and Extent/Spatial Scale**. Each factor is assigned a rating between **1 to 5**, as described in the tables below.

Determination of intensity:

Intensity relates to the nature of the event, aspect or impact to the environment and describes how intense a given aspect's impact on the biophysical and socio-economic environment will be.

Table 1: Rating criteria describing the intensity of a given aspect.

Type of criteria	Rating				
	1	2	3	4	5

Quantitative	0-20%	21-40%	41-60%	61-80%	81-100%
Qualitative	Insignificant / Non-harmful	Small / Potentially harmful	Significant / Harmful	Great / Very harmful	Disastrous Extremely harmful
Social/ Community response	Acceptable / I&AP satisfied	Slightly tolerable / Possible objections	Intolerable/ Sporadic complaints	Unacceptable / Widespread complaints	Totally unacceptable / Possible legal action
Irreversibility	Very low cost to mitigate/ High potential to mitigate impacts to level of insignificance / Easily reversible	Low cost to mitigate	Substantial cost to mitigate / Potential to mitigate impacts / Potential to reverse impact	High cost to mitigate	Prohibitive cost to mitigate / Little or no mechanism to mitigate impact Irreversible
Biophysical (Air quality, water quantity and quality, waste production, fauna and flora)	Insignificant change / deterioration or disturbance	Medium change / deterioration or disturbance	Significant change / deterioration or disturbance	Very significant change / deterioration or disturbance	Disastrous change / deterioration or disturbance

Determination of duration:

Duration refers to the amount of time the receiving environment will be exposed to a given aspect, risk or impact, given the absence of intervention/mitigation.

Table 2: Rating criteria for determination of duration

Rating	Description
1: Low	1 Month
2: Low-Medium	1 – 3 Months
3: Medium	More than 3 Months
4: Medium-High	5 – 10 Years
5: High	More than 10 Years

Determination of extent/spatial scale:

Extent refers to the spatial influence of an impact, be it contained to the immediate surroundings (site), extending to the surrounding area, regional (will have an impact on the region), national (will have an impact on a national scale) or international (impact across international borders).

Table 3: Rating criteria for the determination of extent/spatial scale

Rating	Description
1: Low	Immediate, fully contained area (site)
2: Low-Medium	Surrounding area
3: Medium	Regional
4: Medium-High	National
5: High	International

Determination of overall consequence:

The overall consequence is determined by calculating the sum of all impact factors described above and those summarised below, divided by the total number of impact factors (three) (Equation 2).
I = Intensity
D = Duration
E = Extent

n = number of factors

Equation 2: Calculation of overall consequence.

$$Overal\ Consequence = \frac{\sum(I+D+E)}{n}$$

Determination of likelihood:

Likelihood refers to the probability of a given aspect/impact to occur given that no mitigation measures are implemented.

Table 4: Rating Criteria for the determination of likelihood.

Rating	Description
1: Low	< 30% chance of occurrence
2: Low-Medium	30% - 50% chance of occurrence
3: Medium	50% - 70% chance of occurrence
4: Medium-High	70 – 90% chance of occurrence
5: High	>90% of occurrence

Determination of overall environmental significance:

Quantitative analysis of the overall environmental significance:

The overall environmental significance is determined by multiplying the overall consequence (C) by the likelihood of occurrence (L) (Equation 1). The rationale of the overall environmental significance relates to identifying and quantifying the sum of environmental impacts arising from the proposed development and the recommendation of appropriate mitigation measures.

Table 5: Environmental significance evaluation score sheet.

Aspect Specific Environmental significance	Low	Low-Medium	Medium	Medium-High	High
Overall Consequence x Overall Likelihood (Equation 1)	1-5	6-10	11-15	16-20	21-25

Qualitative description or magnitude of the environmental significance:

The qualitative description of environmental significance attempts to provide an indication of the nature and or magnitude associated with the proposed development. It also guides the prioritisation and decision-making process related to this event, aspect or impact.

Table 6: Rating criteria for impact significance.

Significance	Low	Low-Medium	Medium	Medium-High	High
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect. Acceptable.	Impact is of low order and therefore likely to have little real effect. Acceptable.	Impact is real, and potentially substantial in relation to other impacts. Can pose a risk to the company	Impact is real and substantial in relation to other impacts. Pose a risk to the company and environment. Unacceptable	Impact is of the highest order possible. Unacceptable. Fatal flaw.

Action Required	Maintain current management measures. Where possible improve.	Maintain current management measures. Implement monitoring and evaluate to determine potential increase in risk. Where possible improve	Implement monitoring. Investigate mitigation measures and improve management measures to reduce risk, where possible.	Improve management measures to reduce risk.	Implement significant mitigation measures or implement alternatives.	

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

Proposal

Potential impacts:	**Significance rating of impacts (positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact** and **mitigation not being implemented**
Habitat loss	Negative	Limit the amount of construction sites that are worked on simultaneously and consult an ecologist with regards to sustainable rehabilitation of the disturbed areas. The construction phase should be completed as soon as possible without causing any unnecessary environmental damage. Rehabilitation measures must be implemented in areas where the soil surface was disturbed.	Low	Medium-Low
Invasive plant species	Negative	Topsoil must be stockpiled and kept clean from alien vegetation. Equipment used should be regularly washed to avoid transporting invasive species. No exotic flora may be introduced for landscaping purposes. Native species, and preferably species naturally occurring in the area should be used. Inspections followed by the clearance of exotics should be conducted on a yearly basis.	Low	Medium-Low
Artefacts and fossils	Negative	The impact on palaenotological, archaeological or historically significant resources within the development footprint is considered very low. However, if any such resources are unearthed, the relevant authorities should be notified. The impact on palaenotological, archaeological or historically	Low	Low

		significant resources within the development footprint is considered very low. However, if any such resources are unearthed, the relevant authorities should be notified.		
Surface and ground water quality	Negative	Chemical toilets must be available during construction and trap containers containing any oil, grease or other industrial substance must be treated and discharged at a recognized facility. A comprehensive stormwater network should be implemented. Stormwater channels should be lined with clay. The sedimentation pond, evaporation pond and the temporary storage/drying area should be connected to the stormwater network and be lined with concrete. Regular inspection of the stormwater network should be conducted. The sedimentation pond should be cleaned once it reaches 70% capacity.	Low	Medium
Construction of infrastructure	Negative	Construction debris should be removed regularly and not allowed to pile up. A designated construction waste area should be placed. All domestic waste and construction debris should be removed to a designated waste landfill site. Native trees can be planted around the feedlot to obscure direct visual impact. All operational activities should strictly be concentrated on the proposed site. Rehabilitation of all open spaces after construction.	Low	Medium-Low
Air quality	Negative	Watering bare surfaces and excavations to promote dust suppression, enforce speed limit of 30km/h and optimization of working schedule to reduce vehicle mobilization. Introduction of probiotics in livestock feed and drinking water to accelerate the organic compound breakdown and limit fly population. Manure stockpiles may not stand unutilized for more than four months. Feedlot layout should be placed downwind from the populated areas. The sedimentation pond should be cleaned once at 80% capacity. The introduction of composting bacteria in the sedimentation pond accelerates the breakdown of organic compounds.	Low	Medium-Low
Noise and	Negative	Working schedule for activities	Low	Medium-Low

vibrations		with high noise levels will be limited to 08:00 AM to 17:00 PM, machinery should be serviced regularly during the construction stage. Equipment should be regularly serviced. Native trees can be planted around the feedlots to act as sound barriers. Regular inspection and maintenance of equipment must be undertaken to ensure that all components function optimally.		
General solid waste	Negative	*Reduce, reuse* and *recycle* strategies need to be implemented. Waste receptacles must be made available, and all waste shall be adequately stored and removed. Waste that can easily be dispersed by wind should be appropriately discarded in bins with lids. Waste should be regularly removed from the site. General waste should be transported to a designated waste storage area and may not be burned. Waste should be transported to a registered landfill site. Construction waste should also be removed from the site and not pile up. Construction debris should be removed to a registered landfill site.	Low	Medium-Low
Organic waste (manure)	Negative	The new feedlots will only start to generate organic waste (manure) once the competent authority approves the project, and the construction thereof has been completed. Therefore, the construction phase does not generate any impacts related to manure production. During the operational phase a comprehensive stormwater management network should be implemented and regularly inspected for faults. The stormwater channels should be lined with clay to prevent seepage. The sedimentation pond, evaporation pond and the temporary storage/drying area should be lined with concrete. Dried manure should not be unutilized for more than four months.	Medium-Low	Medium
Job creation and the influx of job seekers	Positive	Construction creates job opportunities which can include the training of local youth. Routine maintenance of housing and associated infrastructure creates job opportunities for the local businesses.	Medium-Low	Medium

		Housing provision for growing local community.		

Alternative 1 *(REPEAT THIS TABLE FOR EACH ALTERNATIVE)*

Potential impacts:	~~**Significance rating of impacts (positive or negative):**~~	~~**Proposed mitigation:**~~	~~**Significance rating of impacts after mitigation:**~~	~~**Risk of the impact** and **mitigation not being implemented**~~
No Alternatives to assess				

No Go

Potential impacts:	**Significance rating of impacts (positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact** and **mitigation not being implemented**
The cattle feedlot will not provide additional food security to South Africa.	negative	Promote and support sustainable agricultural practices in the region, which can benefit both the environment and the local community. Encourage the use of cover crops, crop rotation, and responsible grazing management	N/A	N/A
Socio-economic benefits such as job creation, skills development, and local economic growth will be lost.	negative	Engage with locals to educate them about the potential impacts of a feedlot and reasons behind the no-go decision. Explore opportunities for economic diversification in the area. This can include supporting alternative agricultural ventures or small-scale local businesses that can provide livelihoods without relying on the feedlot.	N/A	N/A
Economic revenue will be lost	negative	Alternative agricultural ventures could be explored to generate revenue and supplement income.	N/A	N/A
No vegetation will be removed and or disturbed.	positive	Positive impacts do not require mitigation.	N/A	N/A
No change/ alteration to the existing landscape.	positive	Positive impacts do not require mitigation.	N/A	N/A
No additional waste will end up in landfill sites and within the local municipal sewage treatment system.	positive	Positive impacts do not require mitigation.	N/A	N/A
The natural habitat of the environment will	positive	Positive impacts do not require mitigation.	N/A	N/A

remain largely intact.				

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

Terrestrial ecological report
Wetland delineation report
Visual impact assessment
Phase one heritage assessment

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

The following assumptions and limitations apply to the wetland assessment report:

- The wetland assessment is confined to a 50m buffer around the project boundary; and
- The wetland delineation as presented in this report is regarded as the best estimate of the wetland boundary based on the site conditions present at the time of assessment. Global Positioning System (GPS) technology is inherently inaccurate and some inaccuracies due to the use of handheld GPS instrumentation may occur.
- Survey was limited to a one-day survey and investigation.
- Identification of wetlands is guided by National Wetland Map 5 (NWM5) of National Biodiversity Assessment 2018 of SANBI.

The following limitations should be noted for the ecological assessment:

- The findings, results, observations, conclusions and recommendations provided in this report are based on the author's best scientific and professional knowledge as well as available information regarding the potential impacts of the proposed feedlot on the terrestrial environment;
- The assessment of impacts was based on the current state of the primary receiving environment;
- Only a single season survey was conducted for the respective studies;
- Night surveys were not performed due to safety and budgetary reasons;
- Despite these limitations, a comprehensive desktop study was conducted, in conjunction with the detailed results from the surveys, and as such there is a high level of confidence in the information provided.

The following limitations should be noted for the heritage impact assessment:

- Desktop studies rely solely on existing data, which may be incomplete, outdated, or unavailable. Critical data gaps can lead to incomplete or inaccurate assessments.
- Without an on-site investigation, there can be assumptions made about numerous environmental processes, such as erosion, pollution and sedimentation.
- Field assessments often reveal unexpected conditions that could not have been predicted through a desktop study due to the limited ability to capture distinctions from afar.

3. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

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

The proponent does not foresee that the cattle feedlot will be decommissioned and therefore, no closure plan is considered for the proposed development.

Proposal

~~Potential impacts:~~	~~Significance rating of impacts(positive or negative):~~	~~Proposed mitigation:~~	~~Significance rating of impacts after mitigation:~~	~~Risk of the impact~~ and ~~mitigation not being implemented~~
N/A				

Alternative 1

Potential impacts:	**Significance rating of impacts(positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact** and **mitigation not being implemented**
N/A				

Alternative 2

Potential impacts:	**Significance rating of impacts (positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact** and **mitigation not being implemented**
N/A				

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

N/A

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

N/A

4. CUMULATIVE IMPACTS

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

The overall cumulative impacts of most of the environmental impacts are considered to be negative in nature. The appropriate mitigation measures are listed within the EMPr (Appendix H) and should be implemented to keep the overall negative cumulative impacts on a low status.

The positive cumulative impacts arising from the proposed development are considered to be the creation of jobs, addressing national food security, economic growth, revenue increase and increase in property values. As these impacts are positive in nature, mitigation measures are still required to maintain the positive status of these impacts.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with

specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Proposal

Key findings:

Negative impacts:

Ecological impacts – the impacts arising from the proposed development include habitat loss, and invasive plant species. According to the specialist study conducted, the development site is in a transformed state which comprises of crop fields and heavy densities of alien invasive species. Due to these factors, the impacts are considered to be medium but could be reduced to a low impact risk if the appropriate mitigation measures are implemented. There were no protected species observed therefore no risks are associated with loss of protected species. The overall impacts are considered to be of a medium average risk although with the correct mitigation measures the impact status could be kept at a low impact.

Heritage – The impact and risks associated with the cultural and heritage theme is concluded to be low in terms of the findings of the specialist appointed. According to the specialist, the site is situated on homogenous and cultural sterile soil profiles with no potential for Quaternary vertebrate fossils preservation. No above ground evidence of i*n situ* Stone Age archaeological material distributed was observed, such as surface scatters on the landscape, prehistoric structures, graves or historically significant buildings older than 60 years within the boundaries of the study area.

Water resource – The proposed development poses a medium risk to surface and ground water resources during both the constructional and operational phases due to constructional waste and manure waste which can affect both surface and ground water resources if the applicable mitigation measures are not implemented. The impact and risk would be reduced to a low impact if mitigation measures are adhered to. The wetland specialist appointed stated that the remaining wetland habitat identified has lost its natural processes due to the high level of disturbance although a buffer zone has been created to protect the area. The development will be outside of the buffer zone and will therefore have a low impact.

Aesthetics – the alteration of the visual characteristics if the area and overall impact on the landscape appreciation are considered to be medium to high during the construction phase as there will be a lot of construction activities which will alter the natural landscape. During the operational phase of the development the natural features will be altered by the feedlot and associated infrastructure. According to the visual specialist appointed, the position of the proposed development has been chosen to minimise the impacts on the neighbouring farms and if the appropriate mitigation measures of the EMPr is implemented, these impacts can be kept at a low impact status.

Air quality and noise – Noise and air quality assessments are based upon the type of equipment being used during a specific activity and the degree of disturbance that will occur. Air quality is further impacted by emissions emanating from the proposed development. During the construction phase these impacts are generated by the construction vehicles and activities which generate noise and additional air emissions which should be properly mitigated by the measures listed within the EMPr. During the operational phase of the development, additional noise will be generated by the cattle in the feedlot and the additional emissions due to the production of manure. The emissions released by the manure are considered to be under the threshold and will not have a high impact although mitigation measures should be implemented to reduce the impacts of the noise generated by the cattle.

The impacts associated herewith are overall medium on average due to the noise and air emissions generated during the construction and operational phases. The impact and risk should be reduced to a low impact status if the mitigation measures listed in the EMPr are implemented.

Waste – The impact arising from the waste theme of the proposed development is negative in nature and refers to the type of waste being generated. These include general solid waste (construction and operational phase) and organic waste (manure) (operational phase). During

the construction phase, the medium impact can be reduced to a low impact status with easy mitigation measures listed in the EMPr. During the operational phase, the impact of organic waste is higher and strict mitigation measures, a stormwater management plan and waste management plan should be implemented to reduce the negative impacts during the operational phase of the development.

Positive impacts:

Socio-economic - Socio-economic impacts focus on the effects the development will have on the economic drivers in the surrounding area as well as emphasising the integration of economic development concerning the needs of the people. These include job creation, boosting local spending, skills training, ad addresses the national food security of South Africa. The proposed development provided the above mentioned benefits which is considered to be positive in nature.

Refer to Appendix A for sensitivity maps.

Alternative 1

No alternatives assessed.

~~Alternative 2~~

No-go (compulsory)

The no-go alternative assumes that the proposed project will not go ahead i.e., it is the option of not constructing the proposed development. This alternative would result in no environmental impacts on the site or surrounding local area. It provides the baseline against which other alternatives were compared. The following implications will occur if the "no go" alternative is implemented:

- No benefits will be derived from the implementation of an additional land-use.
- The cattle feedlot will not provide additional food security to South Africa.
- This will further enforce more food security related strain on the local communities.
- Socio-economic benefits such as job creation, skills development, and local economic growth will be lost.

Besides the above mentioned, the following benefits might occur if the no go alternative is implemented:

- No vegetation will be removed and or disturbed.
- The natural state of the land will remain largely intact.
- No change/ alteration to the existing landscape.
- No additional waste will end up in landfill sites.

While the no go alternative will not generate any negative environmental impacts, it will surely remove any socio-economic benefit the local community will receive. The no go alternative will also not aid the government in addressing food security, job creation and economic revenue. Therefore, the no go alternative is not considered the preferred alternative.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

- The overall cumulative impact associated with the archaeological aspect of the proposed development are negative due to the anthropogenic disturbances during mostly during the constructional phase. The proposed development will not generate any positive impacts towards the heritage aspect. The significance impact score was overall Low which can be attributed towards the location of the development which is

not near any areas of archaeological importance.

- According to the specialist reports the development site is already transformed by crop fields and dominated by alien invasive species. Due to the terrestrial ecological status of the site, the cumulative impacts regarding loss of habitat and protected species are low although due to the high density of invasive species the cumulative impacts are higher and mitigation measures should be adhered to in accordance with the EMPr to maintain a low impact.

- The overall cumulative impact generated by the proposed development on water resources prior to implementing mitigation measures is calculated to be of Medium order significance. Adequate mitigation measures will lower the overall environmental impact to a Low impact significance. The proposed development will not lead to any positive impacts associated regarding water resources aspect due to the disturbance of a natural functioning aquatic ecosystem. The overall impact of the proposed development is negative in nature, although the development would not occur close to a watercourse.

- A negative impact arises from the overall significant impact due to the proposed development altering the natural landscape features of the area. The significance impact ranges from Medium-high to – Low medium providing that the correct mitigation measures be implemented. There will be no positive impacts generated for the aesthetic aspect due to the alteration of the natural features of the area.

- Overall, the cumulative impact generated from the proposed development is of negative nature as a result of anthropogenic activities causing disturbance and pollution of the natural environment. No positive impacts are expected to arise from the proposed development. The significance impact is considered to be Medium to Low medium if the proper mitigation measures are adhered to during the operational phase.

- The overall cumulative impact generated from the proposed project is of positive nature due to the possible job opportunities, increasing local spending, food security for the growing local population, and economic growth, and addressing food security for the growing local population.

- Overall, the cumulative impact generated by the proposed project on the waste aspect of the environment is negative in nature. The main cause of this is rooted in the anthropogenic activity during the construction phase resulting in the increase of waste generated and the generation of manure during the operational phase of the proposed development. A comprehensive stormwater plan should be implemented to prevent concentrated organic waste (manure) from entering lower soil strata The overall significance of this development ranges from Low medium to Low which generates a negative impact associated with this development. Most of these impacts may be easily mitigated resulting in a Low-medium impact significance.

For alternative:

N/A

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

Considering the negative environmental impacts arising from the proposed development, the proposal is considered to be the most feasible option with the minimum number of impacts on all environmental aspects assessed and in accordance with the recommendations from the specialists.

7. SPATIAL DEVELOPMENT TOOLS

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

N/A

8. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).	YES	~~NO~~

~~If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):~~

N/A

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

Refer to Appendix H for the full Environmental Management Plan Report. Refer to the following specific important mitigation measures:

- Adequate notification should be done to people residing close to where construction activities are taking place especially if they are to be affected by them.
- No fences or gates that provide access to the site/construction campsite may be cut, lowered, removed or damaged in any way.
- Leave private gates as they are found (open or closed). Gates to adjacent properties or onto public roads must be closed at all times.
- Burning of any material is not permitted under any circumstances.
- All construction activities should be restricted to the authorised areas and no disturbance shall occur outside of these areas.
- Working schedule for the activities with high noise level will be arranged between 07:00 to 17:00.
- Periodically watering the bare surfaces and excavations during construction to keep the dust level down.
- Slowing down the vehicles, by enforcing speed limit of 30km/h, carrying the construction materials to reduce dust generation.
- Clearance of vegetation should be restricted to authorised development area.
- The waste management strategy on the construction site should be hinged on the waste hierarchy model of '*reduce, reuse and recycle*' waste in order to reduce the ultimate impact on the environment.
- All waste management strategies employed by the contractor should comply with environmental / waste management legislation.
- A comprehensive stormwater management plan should be implemented that ensures all runoff from the feedlots are channelled into the allocated treatment system.
- Protected species should be incorporated into the layout and design as far as possible.
- Localized habitat features such as nests, dens or burrow sites should be avoided as much as possible. In addition, care should be taken in working in

areas of active nesting, spawning, and feeding areas.

- No loose chance finds such as stone age artefacts (arrow heads, stone flake blades etc.) may be collected.
- The on-site environmental representative should consult the appointed ECO regarding any such discoveries.
- The contractor should identify all situations that can lead to emergency situations and provide response strategies. The situations should include fire, first aid and major chemical spill.
- Contact details of all departments/ service providers to be contacted in case of an emergency shall be made available to employees.
- Equipment for dealing with emergencies such as spill kits, firefighting equipment, first aid boxes etc. shall be made available and personnel properly trained in its use.

9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT

(as per notice 792 of 2012, or the updated version of this guideline)

The proposed activity will be located on a piece of vacant land, previously used for agricultural activities. This land is currently a high-density agricultural region and is outside of the urban edge of the town. The proposed development/activity is therefore permitted in terms of the property's existing land use rights.

The preferred layout plan was drafted and finalised following site visits by both the EAP and relevant specialists. It was concluded that on the preliminary visual observations, the new feedlots should be placed on disturbed veld. The proposed placement will have the least likelihood of producing adverse environmental impacts. Furthermore, the proposed placement of these structures is favoured given the site's topography, which is crucial for surface water drainage.

The support of national food security through the protection and productive use of high-value agriculture land, as identified and directed by DFFE, and ensuring that all relevant national and provincial sector departments and municipalities account for their use and management of high-value agricultural land is of high importance.

The proposed development falls within an agricultural area, therefore the development coincides with the approved structure plan of the Municipality. The proposed development will address and meet issues such as job creation, economic revenue and national food security and meet the needs identified within the local municipalities IDP.

The establishment of the feedlot will contribute to positive improvement of the socio-economic dimension of the local area through meeting the need for both local and job security and addressing national food security. Benefits arising from the expanded feedlot include job creation, improved socio-economic dimension, increase in economic revenue and addressing the national food security. The proposed development's placement was finalised after consultation with the proponent and specialists' input. The benefits arising from the operations of this activity outweigh the adverse environmental impacts. Therefore, the proposed activity should receive favourable consideration.

The Environmental Management Group (EMG) will undertake a comprehensive Public Participation Process to ensure that all concerns raised from adjacent

landowners and the public are adequately addressed. Inequality and food security can be addressed by the increase of livestock productivity which will be provided by the establishment of the cattle feedlot. After addressing all issues in terms of impacts identified during the impact assessment and implementing all the proposed mitigations, no rights of the surrounding landowners nor the surrounding environment will be negatively affected.

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

Inevitable

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)

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

EMPr attached	Yes

SECTION F: APPENDIXES

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

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

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

Appendix B: Photographs

Appendix C: Facility illustration(s)

~~Appendix D: Route position information~~

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

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

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