



Section 24G Environmental Authorisation Process for the construction and operation of a feedlot, located on Portion 95 of the Farm Groenkloof 464-JQ, Madibeng Local Municipality, North-West Province

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CORE Environmental Services

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EXECUTIVE SUMMARY

Bila Foods (Pty) Ltd is applying for Environmental Authorisation by means of undertaking a Section 24G Environmental Authorisation (EA) application process in terms of the National Environmental Management Act 107, of 1998, as the applicant commenced with the construction activities for the purposes of establishing a feedlot to accommodate 2400 cattle, 500 sheep and 500 goats within 120 camps/pens. During June of 2024, approximately 8Ha of vegetation was cleared and the applicant commenced with the construction of associated structures and infrastructure for the purpose of the feedlot. It must however be noted that from 2014 until 2021, prior to the applicant purchasing the property, the affected project area was used for agricultural activities (crop cultivation), and all indigenous vegetation was already removed.

The activities associated with the feedlot was undertaken without obtaining Environmental Authorisation as required in terms of the National Environmental Management Act 107, of 1998 (NEMA 107, of 1998) and for this reason, a Section 24G Environmental Authorisation process is submitted to apply for the rectification of the activities commenced with, by means of applying for Environmental Authorisation in terms of NEMA 107, of 1998. The total area to be used for the feedlot is 19Ha in extent and for this reason, the clearance of vegetation of approximately 19Ha of indigenous vegetation is included within the Section 24G Environmental Authorisation application.

It is noted that water will be abstracted from a groundwater resource located on the property. The water to be abstracted from the respective boreholes will require a Water Use License Application to be submitted to the Department of Water and Sanitation in accordance with Section 21 of the National Water Act 36 of 1998 (NWA, 1998). For this reason, application is also made for the water uses trigger in terms of Section 21 of the NWA of 1998.

Within the footprint of the feedlot, the following is proposed:

- 100 camps/pens with each camp accommodating approximately 24 cattle;
- Ten camps accommodating approximately 50 sheep each (total of 500 sheep);
- Ten camps accommodating approximately 50 goats each (total of 500 goats);
- Animal feed storage facility;
- Storeroom;
- Manure lagoon and stockpile area;
- Water purification plant (if required);
- Two water storage tanks (one for potable water and one for fire water storage)

The standing period for one cycle at a feedlot is about 100 – 120 days and therefore three cycles can be completed each year.

The construction and operation of the feedlot is likely to result in environmental and socio-economic impacts. The identified impact areas are listed below and discussed within Section 6.

- *Impact on soil*
- *Water resource;*
- *Biodiversity*
- *Stormwater Management;*
- *Air quality;*
- *Waste classification, storage and disposal;*
- *Health and Safety;*

- *Pests; and*
- *Socio-economic impact.*

The table below summarises the impacts identified and assessed for the construction and operational phases of the project:

TABLE 1: ENVIRONMENTAL IMPACT STATEMENT

IMPACT	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES
	CUMULATIVE IMPACT			
Construction phase impacts				
Erosion	Low	Very Low		N/A
Soil contamination	Low	Very Low		N/A
Clearance of additional vegetation	Medium	Low		N/A
Spreading Alien Invasive Plant Species	Low	Very Low		N/A
Dust generation	Low	Very Low		N/A
Noise generation	Low	Very Low		N/A
Waste generation	Low	Very Low		N/A
Traffic impact	Medium	Low		N/A
Health and Safety	Low	Very Low		N/A
Socio-economic Impact	Neutral	Medium (+)		N/A
Operational phase impact				
Impact on water availability	High	Low	High	Low
Ground- and surfacewater pollution	High	Low	Medium	Low
Spreading of alien invasive plant species	Medium	Low	Medium	Low
Positive impact on grassland biodiversity	Medium (+)	Medium (+)	Medium (+)	Medium (+)

Odour	Medium	Low	High	Low
Dust generation	Medium	Low	High	Low
Waste generation	High	Medium	High	Medium
Health and Safety	Medium	Low	Medium	Low
Traffic	Low	Very Low	Medium	Low
Pests	High	Medium	High	Medium
Socio-Economic impact	Neutral	High (+)	Neutral	High (+)

The assessment of the possible impacts associated with the establishment and operational activities, concluded that the impact on the surrounding environment is of high to medium significance prior to the implementation of mitigation measures. Recommendations have however been made to address the impacts which could affect the biophysical and socio-economic environment and when such recommendations are implemented, it is believed that the impacts associated with the operational activities, would be reduced to be of medium to low significance. Recommendations for the mitigation of impacts are included within Section 6 and the Draft Environmental Management Plan attached. The significance of the potential environmental (biophysical and social) impacts associated with the proposed project are discussed in detail under **Section 6**.

It is the opinion of the EAP that the EA for this project should be granted, and the proposed mitigation included as the conditions of the authorisation.

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ABBREVIATIONS

ABBREVIATIONS

BAR	Basic Assessment Report
BOD	Biochemical Oxygen Demand
CBA	Critical Biodiversity Area
CR	Critically Endangered
DEDECT	Department of Economic Development, Environment, Conservation and Tourism
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EAPASA	Environmental Assessment Practitioner Association South Africa
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EN	Endangered
ESA	Ecological Support Area
GNR	General Notice Regulation
I&AP	Interested and Affected Party
IBA	Important Bird Area
IDP	Integrated Development Plan
LC	Least Concern
NFEPA	National Freshwater Ecosystem Priority Areas
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMBA	National Environmental Management Biodiversity Act
NWA	National Water Act
PPP	Public Participation Process
SAHRA	South African Heritage Resources Agency
SACNASP	South African Council for National Scientific Professions
SDF	Spatial Development Framework
SDI	Spatial Development Initiative
TSS	Total Suspended Solids
VU	Vulnerable
WP	Well Protected
WUL	Water Use License

1. OVERVIEW OF THE PROJECT

1.1 Introduction

Bila Foods (Pty) Ltd is applying for Environmental Authorisation by means of undertaking a Section 24G Environmental Authorisation (EA) application process in terms of the National Environmental Management Act 107, of 1998, as the applicant commenced with the construction activities for the purposes of establishing a feedlot to accommodate 2400 cattle, 500 sheep and 500 goats within 120 camps/pens. During June of 2024, approximately 8Ha of vegetation was cleared and the applicant commenced with the construction of associated structures and infrastructure for the purpose of the feedlot. It must however be noted that from 2014 until 2021, prior to the applicant purchasing the property, the affected project area was used for agricultural activities (crop cultivation), and all indigenous vegetation was already removed.

The activities associated with the feedlot was undertaken without obtaining Environmental Authorisation as required in terms of the National Environmental Management Act 107, of 1998 (NEMA 107, of 1998) and for this reason, a Section 24G Environmental Authorisation process is submitted to apply for the rectification of the activities commenced with, by means of applying for Environmental Authorisation in terms of NEMA 107, of 1998. The total area to be used for the feedlot is 19Ha in extent and for this reason, the clearance of vegetation of approximately 19Ha of indigenous vegetation is included within the Section 24G Environmental Authorisation application.

As for the water proposed to be used during the operation of the activities, it is noted that water will be abstracted from a groundwater resource located on the property. The water to be abstracted from the respective boreholes will require a Water Use License Application to be submitted to the Department of Water and Sanitation in accordance with Section 21 of the National Water Act 36 of 1998 (NWA, 1998). For this reason, application is also made for the water uses trigger in terms of Section 21 of the NWA of 1998.

Bila Foods (Pty) Ltd subsequently appointed **Core Environmental Services** to apply for the EA and WUL by means of conducting a Section 24G Environmental Authorisation Process in accordance with the NEMA 107 of 1998 as well as a Water Use Licensing process in accordance with the NWA 36 of 1998.

1.2 Location

The site is located on portion 95 of the farm Groenkloof 464-JQ, approximately 8km east of Mooinooi, within the Madibeng Local Municipality, North-West Province

Coordinates:
25°45'31.72"S,
27°38'46.14"E

Please refer to the locality map below, Figure 1.

LOCALITY MAP - SECTION 24G ENVIRONMENTAL AUTHORISATION PROCESS FOR THE ESTABLISHMENT OF A FEEDLOT, PORTION 95 OF THE FARM GROENKLOOF 464-JQ, NEAR MOOINOOI, NORTH-WEST PROVINCE

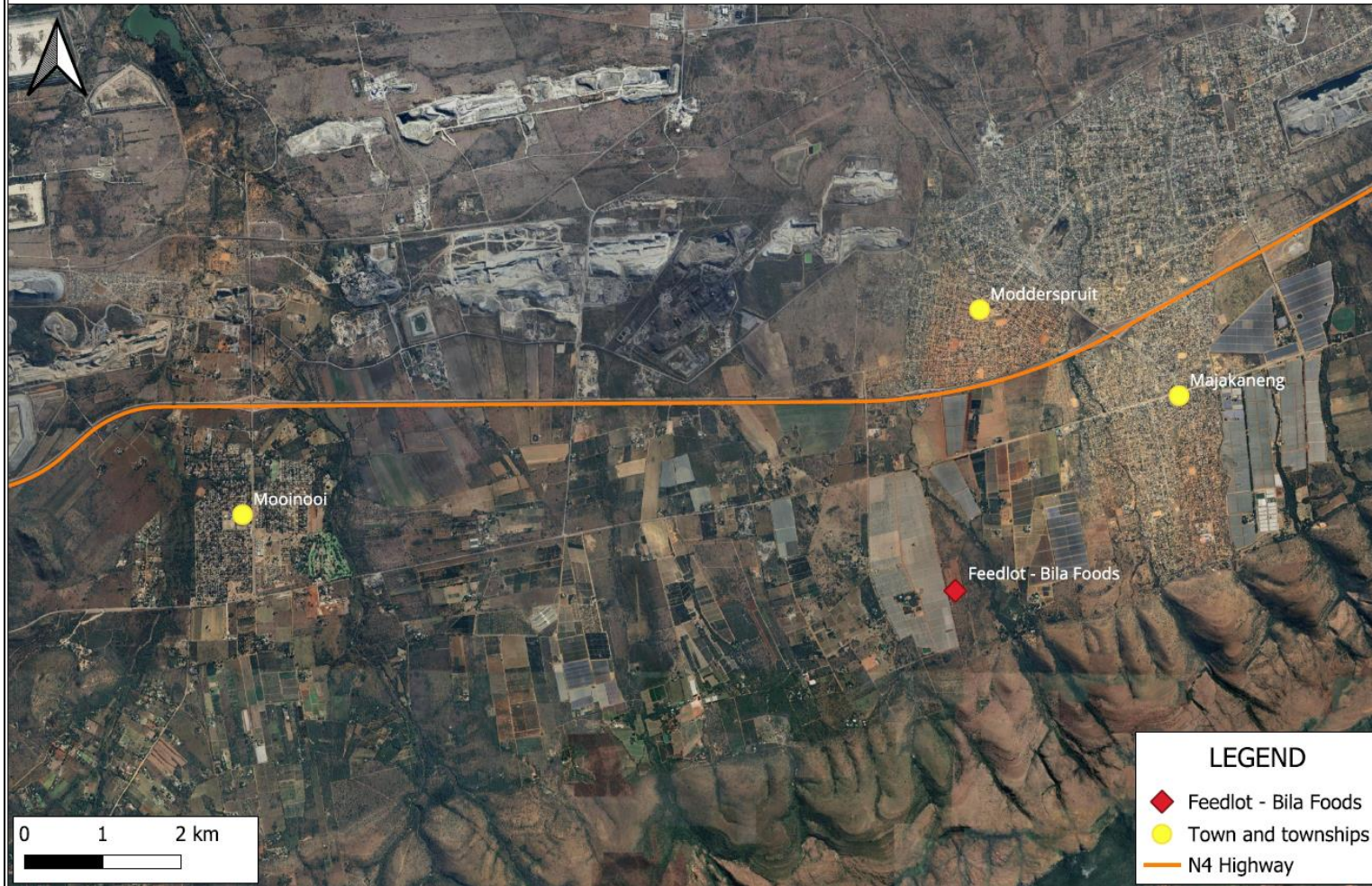


FIGURE 1: LOCALITY MAP – BILA FOODS FEEDLOT ON PORTION 95 OF THE FARM GROENKLOOF 464-JQ, NEAR MOOINOOI, NORTH-WEST PROVINCE

1.3 Details of the EAP

Ms. Anne-Mari Hitge is an Environmental Specialist, who started her studies at the North-West University (NWU) and completed her Bachelor of Science: Environmental Management at the University of South Africa (UNISA) in 2007. Ms. Hitge is registered with the Environmental Assessment Practitioners Association of South Africa (EAPASA Reg No: 2020/602) as well as the South African Council for Natural Scientific Professionals as a Certificated Natural Scientist (Reg. No 300067/15). In addition to her qualification, she completed short courses in soil classification and wetland delineations (Terrasoil Science), Geographic Information Systems (University of KwaZulu-Natal), and Environmental Impact Assessments (NWU).

1.4 Policy Legal and Administrative Framework

1.4.1 National Environmental Management Act 107, 1998

In accordance with GNR326 of 2017, the following listed activities were applicable for the activities which commenced during June of 2024, and for this reason a Section 24G Environmental Authorisation application is submitted for the approval of the following listed activities:

TABLE 1: LISTED ACTIVITIES APPLIED FOR IN TERMS OF SECTION 24G, NEMA 107, OF 1998

Activity applied for in terms of GNR327, GNR325, and/or GNR324 of 2017	Description of the activity undertaken or to be undertaken
<p><u>GNR327, 2017: Activity 4:</u></p> <p><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 20 m² per large stock unit.</i></p>	<p>The applicant, Bila Foods (Pty) Ltd, is have commenced with the construction of structures and infrastructure for the operation of a feedlot, which would ultimately accommodate 2400 cattle, 500 sheep and 500 goats on an area of approximately 19Ha in extent.</p>
<p><u>GNR327, 2017: Activity 27:</u></p> <p><i>The clearance of an area of 1Ha or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for (i) the undertaking of a linear activity, (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i></p>	<p>The applicant, Bila Foods (Pty) Ltd, commenced with the clearance of approximately 8Ha indigenous vegetation during June 2024. Ultimately, the applicant will be clearing approximately 19Ha of indigenous vegetation for the purpose of the feedlot.</p>

<p><u>GNR324, 2017: Activity 12:</u></p> <p><i>The clearance of an area of 300m² or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan, within (h) North-West Province: (iv) within Critical Biodiversity Areas as identified in systematic biodiversity plans adopted by the competent authority.</i></p>	<p>The project site is located within an area classified as a Critical Biodiversity Area in terms of the systematic biodiversity plans adopted by the competent authority, and the applicant commenced with the clearing of vegetation of approximately 8Ha. It must however be noted that the project area has been used for agricultural purposes for a number of years, prior to Bila Foods taking ownership of Portion 95 of the farm Groenkloof 464-JQ.</p> <p>The total area to be cleared of vegetation equates to approximately 19HA.</p>
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As the above activities have already commenced, Environmental Authorisation is applied for by means of conducting a Section 24G Environmental Authorisation application process in accordance with GNR982, of 2014 (as amended).

Other national, provincial or local legislation applicable to the proposed project, is indicated in Table 2, below.

TABLE 2: LEGISLATION APPLICABLE TO THE PROJECT

Applicable legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments considered	Project application and type (permit / licence / authorisation / comment)
<p>The Constitution of South Africa, Act No. 108 of 1996</p>	<p>Bila Foods (Pty) Ltd will be required to adhere to the Environmental Management Programme (EMPr) requirements to ensure that social and environmental management considerations are considered and implemented.</p> <p>As per Section 25 the Constitution, a public participation process (PPP) was and will continue to be undertaken, as this is an essential mechanism for informing stakeholders of their rights and obligations in terms of the project.</p>
<p>National Environmental Management Act, 1998 (Act No. 107 of 1998)</p>	<p>Environmental Authorisation was however not applied for prior to the construction and operation of the feedlot and therefore a Section 24G rectification process is undertaken to obtain Environmental Authorisation for the above listed activities in accordance with NEMA 107, of 1998.</p>

National Environmental Management: Waste Act (Act 59 of 2008) (as amended)	The applicant will be required to adhere to the conditions stipulated within the National Environmental Management Waste Act, 2008, by means of effective management of all different kinds of waste to be generated at the site during the construction and operational phases of the feedlot, to ensure the protection of the surrounding environment.
National Environmental Management: Air Quality Act (Act No 39 of 2004)	The applicant of the feedlot will be responsible for the protection of air quality during the construction and operational phases of the project, by ensuring that dust and odour generation and is minimised through the implementation of mitigation measures to address such impacts.
National Water Act, 1998 (Act No. 36 of 1998)	<p>Water is a scarce resource and must subsequently be managed and protected in accordance with the National Water Act 36 of 1998.</p> <p>It is also noted that water is currently being abstracted from a borehole located on the property and the additional water required for the project will also be abstracted from groundwater resources. For this reason, an application is made in terms of Section 21 of the National Water Act 36 of 1998.</p>
National Biodiversity Act, 2004 (Act no 10 of 2004)	<p>The act provides for the management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources, the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resource; the establishment and functions of a South African National Biodiversity Institute; and for matters connected therewith.</p> <p>The National Biodiversity Act, 2004, must therefore be considered to ensure that the impact on the biodiversity is minimised, especially with the area being classified as a Critical Biodiversity Area in terms of systematic biodiversity plans adopted by the competent authority.</p>

Protected Areas Act (No 57 of 2003)	<p>The Act provides for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes.</p> <p>The Magaliesberg Biosphere has two core zones, the Cradle of Humankind World Heritage Site and the Magaliesberg Protected Environment. These areas are mostly conservation areas, protected by legislation within the environmental legal framework of the country.</p> <p>The Protected Areas Act is applicable to the project as the Magaliesberg Protected Environment is located approximately 1km south of the project development area. It is therefore imperative to ensure that development does not affect areas within the Magaliesberg Protected Environment.</p>
National Heritage Resources Act (No 25 of 1999)	<p>This Act was promulgated to ensure the protection of heritage resources surrounding the study area and those to be possibly uncovered during the development phase. A Heritage Impact Assessment was undertaken for the development area and the findings of the Specialist Assessment is summarised in Section 4.7 of the Section 24G Environmental Authorisation Application.</p>
Animal Health Act, 2002 (Act No. 7 of 2002)	<p>This act is central to managing and preventing diseases in animals, ensuring biosecurity measures are followed to protect animal health.</p>
Animal Matters Protection Act, 1993 (Act No. 42 of 1993)	<p>This Act makes provision for the regulation pertaining to the humane treatment of animals. It must therefore be ensured that an animal presented for slaughter must be handled humanely during loading, transportation, off-loading, housing, immobilisation, and killing.</p>
National Norms and Standards for the Disposal of Waste to Landfill (August 2013, GG No. 36784 GN No. 636)	<p>Waste is evaluated in terms of the Norms and Standards for the Assessment of Waste for Landfill Disposal set in terms of Section 7(1) of the NEM: WA. According to Section 4 (2) (iii): non-infectious animal carcasses may only be disposed of at a Class B waste disposal facility or at one designed in accordance with the requirements for a G:L:B+ waste disposal facility, as specified in the Department of Water Affairs and Forestry (DWAF) Minimum Requirements for Waste Disposal by Landfill (2nd Edition, 1998).</p> <p>Section 5 (1) u: indicates that infectious animal carcasses and animal waste are prohibited and/or restricted from landfills with immediate effect, implying that treatment is needed before disposal at Class B.</p>

Animal Diseases Act, 1984 (Act No. 35 of 1984) of	This act provides the framework for controlling diseases which can have an impact on cattle. This framework must be applied at the feedlot to ensure that the probability of an outbreak of possible diseases is minimised.
Environmental Guidelines for Beef Cattle Feedlots in South Africa, 2006	<p>During 2006, a set of environmental management guidelines for the South African Feedlot Association (SAFA) was drafted. Since then, environmental legislation and legislation linked directly to environmental management has changed substantially. It was therefore critical to re-address the guidelines to ensure for the effective management of beef cattle feedlots.</p> <p>The applicant must therefore also consider these guidelines drafted for beef cattle feedlots.</p>
Occupational Health and Safety Act (No 85 of 1993)	This Act makes provision for the protection of workers on site through the provision of Personal Protective Equipment (PPE), training and other health and safety related amenities.
Madibeng Local Municipality Integrated Development Plan (IDP)	<p>One of the primary objectives of the IDP are local economic development and one of the identified key strategies identified to enhance economic development, is the establishment of effective and efficient agricultural produce market platforms.</p> <p>This project is therefore in line with the IDP for Madibeng Local Municipality in fostering economic growth through effective agricultural produce.</p>

1.5 Description of the project.

Bila Foods (Pty) Ltd commenced with the establishment of a feedlot which will ultimately affect an area of approximately 19Ha in extent. A cattle feedlot consists of weaned calves in a confined space, where grazing is replaced with an *ad lib* feed mixture until the cattle grow to a suitable age and condition to be sent for slaughter and consumption as beef and hides.

Within the footprint of the feedlot, the following is proposed:

- 100 camps/pens with each camp accommodating approximately 24 cattle;
- Ten camps accommodating approximately 50 sheep each (total of 500 sheep);
- Ten camps accommodating approximately 50 goats each (total of 500 goats);
- Animal feed storage facility;
- Storeroom;
- Manure lagoon and stockpile area;
- Water purification plant (if required);
- Two water storage tanks (one for potable water and one for fire water storage)

The standing period for one cycle at a feedlot is about 100 – 120 days and therefore three cycles can be completed each year.

Feedlot Pad:

An interface layer will be constructed to protect soils from intrusion by hazardous substances, pothole formation and run-off enhancement. This feedlot pad will require earthworks and importation of gravel fill, which is spread and compacted to a slope of maximum 2.5% - 3%. A scarper will be used to regularly scrape the excess dung.

Sedimentation Pond:

The design of the sedimentation pond includes a two-tier system with a settlement and spill-over area. These ponds will be lined to prevent seepage, and water will evaporate, leaving a sludge will be removed from this pond on a regular basis and transported off-site.

Water Demand and Supply:

As for the water required for the operation of the feedlot, it is noted that the volume of water consumed by feedlot cattle depends on environmental factors (e.g. ambient temperature and humidity), drinking water temperature, water quality, ration composition (nature of food and dry matter content), feed intake, size of the animal, rate and composition of gain, frequency of watering and individual variation between animals.

The water demand for cattle within a feedlot is calculated as approximately 75 litres per cow per day. The water demand for sheep and goats is estimated to be 10 litres per head per day. For this reason, it is calculated that the total water demand for the feedlot equates to approximately 190m³/day. There are four boreholes on site, however, currently, only one borehole is being used for the operation (BH4). This borehole delivers 76m³/day at a recommended abstraction rate of 1.8l/s. If all three of the other boreholes are also used, an additional 142m³/day would be available for the operations of the feedlot which implies that the demand of water would be met. Water abstracted from the boreholes could require treatment and following such, water will be stored within water storage tanks on site.

Waste Management:

Most of the waste associated with the operations of the feedlot includes the management of manure on site. Cattle manure contains important plant nutrients such as nitrates, phosphorous, magnesium and calcium. However, when these nutrients accumulate in water or in the soil solution in quantities that are beyond what crops can absorb naturally, the remainder then becomes a major source of pollution.

Manure is therefore proposed to be removed from the holding pens regularly and stockpiled on an impermeable covered area from where it will be collected for off-site reuse as fertiliser.

Any carcasses at the feedlot will also have to be disposed of. It is recommended that carcasses are transported offsite to a registered facility that would be able to accommodate such.

1.6 Need and Desirability

According to the recently released Organisation for Economic Development (OECD) Agricultural Outlook 2019-2028, meat production is expected to continue to grow as it is expected that by 2050, more than 25% of the world population will live on the African continent. The food market in East and Southern Africa will more than triple by 2040.

Given the natural resource base of South Africa, livestock production is one of the most important farming practices in the country. Of the approximately 80 % of the land surface being utilised for agriculture, almost 70 % is mainly suitable for raising livestock. However, the South African natural pastures are subjected to droughts and cannot support the production of an additional 1.6mil cattle per annum.

The analysis on the value chain in general shows that the South African cattle and sheep industries have been growing in nominal terms when considering their contribution towards the total gross value of agricultural production. With approximately 40-50% of the national herd in the hands of communal and smallholder farmers, the sector can become a dynamic driver of inclusive growth, rural development, employment, and wealth creation for more than 1 million house-holds involved in livestock production, largely in the poorest and most neglected regions of the country. South Africa is estimated to be exporting approximately 4000 tons of red meat a month to 40 countries which includes China, India and the United Arab Emirates. South Africa currently exports 4% of its beef production and 1 % of its mutton and lamb production. (Challenges and opportunities for SA's red meat producers | Farmer's Weekly (farmersweekly.co.za). In South Africa, the feedlot sector is the major contributor to the national beef market value chain as between 65% and 75% of slaughtered cattle are from feedlots.

The South African red meat industry has the potential to grow by more than 20% above a “business as usual” scenario, adding more than R 12 billion in real terms to South Africa’s agricultural GDP per annum by 2030. (Red Meat Industry Strategy 2030 – RMIS)

From the information above, it is noted that the establishment of the feedlot is definitely required and desired to aim in meeting the expected demand within the red meat industry.

Furthermore, the construction and operation of the feedlot is expected to have a significant positive impact on the local economy. It will create direct and indirect employment opportunities, from construction workers during the construction of the facility, to permanent employment for feedlot staff (logistics, retail, and management). Furthermore, the facility will support local farmers by providing a reliable and accessible market for their livestock, thereby enhancing agricultural sustainability in the region.

This scale of operation is intended to enhance the local and international meat supply chain, support regional agriculture, and create numerous job opportunities within the surrounding local community.

2 PUBLIC PARTICIPATION PROCESS

The purpose of this chapter is to provide an outline of the public participation process (PPP) to date and the way forward with respect to the Section 24G Environmental process.

Consultation with the public forms an integral component of the EA process. This process enables Interested and Affected Parties (I&APs) (e.g. directly affected landowners, national-, provincial- and local authorities, and local communities etc.) to raise their issues and concerns regarding the proposed activities, which they feel should be addressed in the 24G Environmental Rectification process. The PPP has thus been structured such as to provide I&APs with an opportunity to gain more knowledge about the proposed project, to provide input through the review of documents/reports, and to voice any issues or concerns at various stages throughout the 24G Environmental Authorisation process.

I&APs were identified during the public participation phase of the project. All the parties identified as an I&AP (surrounding landowners, relevant departments, stakeholders, local and district authorities) have automatically been registered in the I&APs database for the project. The registered I&AP list is attached as **Annexure C.1**.

In effort to engage potential stakeholders, different communication methods were used to inform them about the project and how to get involved in the BA process. These methods include:

- Distributing English Background Information Documents (BIDs) to all registered I&APs, proof of which is attached in **Annexure C.2**;
- Placement of media advert in a local newspaper (The Lowvelder) on **18 July 2024** (see **Annexure C.3**).
- Placing of a notice at the proposed site took place on **23 July 2024** (see **Annexure C.4**);

The draft Section 24G Report will be made available for public review during January to February 2025.

To date, the following comments have been received:

TABLE 3: COMMENT AND RESPONSE – BILA FOODS FEEDLOT

COMMENT RECEIVED	RESPONSE PROVIDED
<p><u>Chris Venter (25 July 2024):</u></p> <p>As a nearby neighbour (Portion 45 of farm Groenkloof 464-JQ, approximately 800m from the applicant), I hereby raise my concerns over the next points:</p> <ol style="list-style-type: none"> 1. We use our borehole water for human consumption and already experience a drop in the water quality and a drop in the water level. 2. Applicant must apply for a water use license and must keep the above in mind 3. Areas where livestock going to be kept must be cleaned regularly and properly to prevent drain water from reaching the water table. 4. Quality of borehole water must be checked at least once a month. 5. Proper and enough fly catchers must be installed and maintained monthly. We already experience an increase in flies, and I have at any time got 10 fly catchers on our property. 6. Sanitation for small, manure, flies etc. must take place at least every 3 months to disinfect the area. 7. Manure must be removed constantly and a proper disposal of it must take place. 8. Dust can also be a point of source problem and an action plan to address that must be in place. 9. Safekeeping is obviously a must as guards and fencing must be in place. <p>In principle, we do not object to application but above-mentioned concerns must be in place and reflect in their daily work processes.</p>	<p><u>Response by EAP- 27 July 2024:</u></p> <p>Thankyou for your email, I will be including your contact details within our stakeholder and I&AP database for this project in order to ensure that you will be receiving all correspondences with regards to the application process being undertaken.</p> <p>All of your concerns will be noted and addressed within the Draft Report of which you will also receive a copy for review once it is made available.</p> <p>In addition to this, please note that an application for a Water Use License is being undertaken and a Geo-Hydrological Assessment is undertaken as part of this process. The findings will also be shared with all I&AP's as soon as the information is available.</p> <p>Trust that you will find the above in order.</p>

I need a written confirmation of receipt of this letter and that points mentioned must be included in the application documents and be approved of.

Mr. Marius Bornman (24 July 2024):

Good day Anne-Mari
Hope you are well,

As per public participation process advertised in newspaper, I would like to register as an Affected Party. The section in question has already been cleared, prior to this advert. Is this not against regulation? The issue will be that Bila foods will be utilising this land for livestock and a slaughterhouse. I am staying right behind the area.

We will share the underground water of which is not very strong, one cow drinks a minimum of 50L of water per day. Part 95 is not 150ha as stated in the add. Bila is buying farmland all around the area which all may total 150ha. Water to be used in the slaughterhouse and what regulation will be in place for the removal of the blood and faeces. These will ensure Bad smells and bacteria in the area. This area is too small to cater for the amount of cattle they are putting there. It is clear that the go ahead was already given as works on the property is underway and the butchery is already open further down the R104.

These are my and my neighbour's concern.

Please advise on any further developments please.

Response by EAP (24 July 2024):

Good Morning Mr. Bornman

Thank you for your email. Your comment will be recorded within the EIA process to be undertaken.

In order to provide some clarification, please note the following:

Bila Foods are currently undertaking two Environmental Authorisation processes.

1. Proposed abattoir:

The one EIA process is for the proposed abattoir and this activity has not yet commenced. This abattoir is proposed to be located on portion 55 of the farm Groenkloof 464-JQ. This abattoir is proposed adjacent and north of Road R104 on an area of 8Ha which was previously used for cultivation purposes. (On the area where the small butchery is currently operating). As part of this process, a Water Use License Application will also be undertaken and a Geo-Hydrological Assessment will form part of the assessment to determine the availability of groundwater. An engineering team is currently working on designs for the treatment of effluent water from the abattoir and following the treatment of the effluent water, water will be used for irrigation. In order to mitigate all other negative impacts associated with a proposed abattoir, the Environmental Impact Assessment is

Thank you and Regards

undertaken, and an Environmental Management Plan will be compiled to effectively ensure that negative impacts are minimised. (Please see attached BID and Locality Map for the abattoir)

2. Feedlot:

The clearance activities and some of the structures for the feedlot have already commenced and therefore this process is not undertaken as a normal EIA process, but rather a Section 24G Environmental Rectification process. The feedlot is proposed on a different location than what is proposed for the abattoir. (Portion 95 of Groenkloof 464-JQ). Approximately 8Ha of this area has already been cleared. The applicant is however proposing to utilise more than 8Ha for the feedlot, however, the total area to be utilised will be determined following the outcome of specialist assessments (Terrestrial Biodiversity and Heritage Assessment as a minimum requirement). The feedlot is proposed on portion 95 of Groenkloof 464-JQ and although this property is large, the area which would be feasible for the feedlot will be restricted by topography and sensitive environments. The extent of the area will therefore be clarified following the specialist assessments. It must

be noted that a Water Use License Application is currently being undertaken for this project as well and this application will include a Geo-Hydrological Assessment, which will consider the availability of groundwater as well as surrounding groundwater being utilised. (Please see attached BID and locality map for the feedlot)

I hope and trust that the above will provide some clarification.

	<p>For both of the above EIA and Water Use Licensing processes, we have only now commenced with the initial public participation phase while specialists are in the process of being appointed to undertake their assessments. More detail of the respective projects will be provided in two separate reports which will be distributed and available for public review, once all assessments have been completed.</p> <p>Should you require any additional information, please feel free to contact me.</p> <p>Please also note that I have included you on the stakeholder and interested and affected party database and you will be received all future correspondence pertaining to the above projects.</p>
<p><u>Cornelius van Wyk (26 July 2024):</u> <i>Farm Owner Elandskraal</i></p> <p>Please register me as an I&AP for this application for Section 24G - Feeding lot for 2500 Cattle/sheep/goats by Bila Foods Pty Ltd. Please provide the following:</p> <ol style="list-style-type: none"> 1. Proof of your registration on the EWULA system for this particular project, as well as info in regarding the different water uses that will be applied for e.g. Borehole and Natural Spring Water/Rivers. The Groenkloof 464JQ farm is within a water scarce area of the Magaliesberg Biosphere. Portion 95 falls within the Buffer and full CORE Biosphere area. No damming of water from a 	<p><u>Response by EAP- 27 July 2024:</u></p> <p><i>We acknowledge receipt of your email and comments and we have registered you on the I&AP database in order for you to receive all further correspondence with regards to the EA and WUL Applications to be undertaken.</i></p> <ol style="list-style-type: none"> 1. The Water Use Licensing process have only commenced recently, and a Geo-Hydrological Specialist is in the process of being appointed to undertake a Geo-Hydrological Assessment for the proposed abstraction from the groundwater resource. As soon as this study is completed and more information is provided regarding the groundwater yield and the availability (which will take other

spring is allowed - the Modderspruit or any other spring on Portion 95 - as this water comes from the Magaliesberg Biosphere catchment area and flows down to the Modderspruit and Majakaneng township a mere 1km North of this property. For some it is their only source of fresh water due to lack of proper water & sanitation provided to these townships by the Madibeng Municipality. Excessive usage of borehole water for 2500 animals might also deplete the water levels of the few boreholes that were provided to the townships below this farm. This portion of land is mainly situated in the Magaliesberg CORE area and not suited for major Commercial farming with animals needing a lot of water - especially where the available water for other existing Citrus and Vegetable and Flower farmers with water rights that had to be registered prior to January 2002 and limited water for normal residential usage is concerned.

2. Copies of the specialist studies for the WULA, specifically the geohydrologic study is required and also for all Waste licenses.
3. EIA is required for impact on environment with relevant rules & regulations for a feeding lot to keep cattle pens clean and hygienic and how waste of animals will be disposed of, thus, proper investigations and reports by DEDECT, DFFE, Dept Land use and Dept Health & Sanitation on the proposed feeding lot is also required.
4. The applicant's history/experience of running a feeding lot is required. Feedlots can present environmental issues, including Air and Water Pollution as well as Excess dust, due to the large numbers of animals they contain. A steer can

groundwater users into consideration), the pre-application phase will be submitted in the E-WULAAS. Proof will then be attached to the Draft Section 24G Report which will be distributed to all Stakeholders and I&AP's.

Your comment above regarding the water availability is noted, thank you. As mentioned, a Geo-Hydrological Assessment will be undertaken to determine the water availability while taking other surrounding water users into consideration. The assessment will be made available within the Draft Section 24G Report which will be made available for public review.

2. Your comment is noted, and all specialist assessments will be attached to the Draft Section 24G Report which will be made available for public review.
3. Your comment is noted and all of the above information will be provided within the Draft S24G Report which will be made available for public review.
4. The applicant will ensure that competent staff members are employed for the operation of the feedlot. The comment regarding the impacts to be considered is noted and will be addressed within the EIA process.

produce 30kg (65 pounds) of manure per day (roughly a ton per year), and about 90 percent of that is water weight as well as the Air Pollution not to be forgotten. Rainy weather can turn the pen into mud mixed with manure. Pens need built up areas so animals can get out of the worst of the mud. Preventing heat and cold stress. (reference – feedlots in SA <https://safeedlot.co.za/wp-content/uploads/2019/02/Environmental-Guidelines-for-Beef-Cattle3.pdf>).

5. A Proper registered EAP has to be appointed to report on the impact on the Magaliesberg Biosphere, existing adjacent farming and tourism activities such as Guesthouses, Wedding venues and Hiking trails in the Biosphere area (noise, smell and dust pollution). If not all animals are going to be kept in the feeding pens the whole time, proper fencing is required to make sure animals stay within the borders of portion 95. Over-grazing in the Magaliesberg CORE Biosphere area with scarce vegetation is also not allowed. Proper photos and location maps (Google Earth and ground level) and maps showing the Magaliesberg Biosphere areas and access roads to the feeding lot will be required.
6. The impact on the R104 and servitude roads on adjacent farms with heavy vehicles transporting animals and food for the feeding lot and removal of waste has to be investigated by SANRAL and Madibeng Traffic department and reported on. The R104 in front of that farm is non-existent, or very narrow and where any tar is left at all, it is full of huge potholes. This is due to a large Commercial Blueberry Farm next to portion 95 and the Chrome mines from Buffelspoort, Marikana and Mooinooi using the R104 to avoid the N4 toll road with toll fees and weighbridges. Furthermore, illegal Chrome wash plants and a

5. Your comment is noted and will also be considered and addressed within the EIA process.

6. It is noted that the R104 is currently not in a good/driveable condition. This aspect will also be considered within the S24G Report.

sand mine and brick making businesses in the area (all without proper licenses) are using the R104 illegally with no intervention from SANRAL or the Madibeng traffic department or any relevant authorities. The R104 was not designed for such heavy traffic with 34-ton trucks (18-wheelers) transporting goods. Existing Farmers in the area with 10-ton trucks have to transport their Citrus and Vegetables to the Factories, markets and packhouses via Mooinooi and the N4, as their trucks/bakkies can't use the R104 road at all anymore. Major additional transport costs for existing farmers and residents and tourists (longer route to travel via Mooinooi / Buffelspoort) to get to the N4 instead of using the R104 via Majakaneng to get to the N4. You need a 4x4 vehicle to drive the road from the Berry farm next to Portion 95, through Majakaneng to get access to the N4 highway to the factories and markets in Brits/Pretoria/Johannesburg and hope to not lose a tyre in the process.

7. The community is also aware of a planned application of an Abattoir by Bila Foods just North of this property to slaughter the animals. Even more heavy vehicles to transport the meat and more pressure on the availability of water to run an Abattoir in the Groenkloof 464 JQ and adjacent Buffelsfontein 465 JQ areas with underground water already being depleted by Chrome mines North of both of these two farms blasting open crucial underground water veins. That water dammed up by the chrome mines can't be used again as it is contaminated with heavy metals, Chrome 6 and Acids/Chemicals used in their washing and smelting processes.
8. Please confirm if Company enterprise number K2024330395, Bila Foods Pty Ltd, registered June 2024, with Mr Richard Fani Bila as the Director, is the

7. An EIA and WUL with associated Geo-Hydrological Assessment is currently in process for the proposed abattoir as well. It is proposed that only groundwater be used for the proposed abattoir and the findings of the Geo-Hydrological Assessment will provide more clarity on the availability of groundwater (taking other groundwater users into consideration).
8. We can confirm that the applicant for the Abattoir as well as the Feedlot is Bila Foods (Pty) Ltd. As for confirmation regarding the

correct details for the applicant (reference attached). The same Director of Bila Mining Pty Ltd that owns Portion 95 of Groenkloof 464 JQ and various other portions recently bought in Groenkloof 464JQ, Buffelsfontein 465JQ and Elandskraal 469JQ – majority of these properties for the use of open pit Chrome and Sand Mining.

owners of the other properties, this is unknown to Core Environmental Services. Core Environmental Services is currently undertaking the required EIA and WUL for the abattoir and feedlot respectively on portions 55 and 95 of the farm Groenkloof 464-JQ.

Ben van Wyk (26 July 2024):

Farm Owner Elandskraal

Please register me as an I&AP for this application for Section 24G - Feeding lot for 2500 Cattle/sheep/goats by Bila Foods Pty Ltd.

Please provide the following:

1. Proof of your registration on the EWULA system for this particular project, as well as info in regarding the different water uses that will be applied for e.g. Borehole and Natural Spring Water/Rivers. The Groenkloof 464JQ farm is within a water scarce area of the Magaliesberg Biosphere. Portion 95 falls within the Buffer and full CORE Biosphere area. No damming of water from a spring is allowed - the Modderspruit or any other spring on Portion 95 - as this water comes from the Magaliesberg Biosphere catchment area and flows down to the Modderspruit and Majakaneng township a mere 1km North of this property. For some it is their only source of fresh water due to lack of proper water & sanitation provided to these townships by the Madibeng Municipality. Excessive usage of borehole water for 2500 animals might also deplete the water levels of the few boreholes that were provided to the townships below

Response by EAP- 27 July 2024:

We acknowledge receipt of your email and comments and we have registered you on the I&AP database in order for you to receive all further correspondence with regards to the EA and WUL Applications to be undertaken.

1. The Water Use Licensing process have only commenced recently, and a Geo-Hydrological Specialist is in the process of being appointed to undertake a Geo-Hydrological Assessment for the proposed abstraction from the groundwater resource. As soon as this study is completed and more information is provided regarding the groundwater yield and the availability (which will take other groundwater users into consideration), the pre-application phase will be submitted in the E-WULAAS. Proof will then be attached to the Draft Section 24G Report which will be distributed to all Stakeholders and I&AP's.
Your comment above regarding the water availability is noted, thank you. As mentioned, a Geo-Hydrological Assessment will be undertaken to determine the water availability while taking other

this farm. This portion of land is mainly situated in the Magaliesberg CORE area and not suited for major Commercial farming with animals needing a lot of water - especially where the available water for other existing Citrus and Vegetable and Flower farmers with water rights that had to be registered prior to January 2002 and limited water for normal residential usage is concerned.

2. Copies of the specialist studies for the WULA, specifically the geohydrologic study is required and also for all Waste licenses.

3. EIA is required for impact on environment with relevant rules & regulations for a feeding lot to keep cattle pens clean and hygienic and how waste of animals will be disposed of, thus, proper investigations and reports by DEDECT, DFFE, Dept Land use and Dept Health & Sanitation on the proposed feeding lot is also required.

4. The applicant's history/experience of running a feeding lot is required. Feedlots can present environmental issues, including Air and Water Pollution as well as Excess dust, due to the large numbers of animals they contain. A steer can produce 30kg (65 pounds) of manure per day (roughly a ton per year), and about 90 percent of that is water weight as well as the Air Pollution not to be forgotten. Rainy weather can turn the pen into mud mixed with manure. Pens need built up areas so animals can get out of the worst of the mud. Preventing heat and cold stress. (reference – feedlots in SA <https://safeedlot.co.za/wp-content/uploads/2019/02/Environmental-Guidelines-for-Beef-Cattle3.pdf>).

surrounding water users into consideration. The assessment will be made available within the Draft Section 24G Report which will be made available for public review.

2. Your comment is noted, and all specialist assessments will be attached to the Draft Section 24G Report which will be made available for public review.

3. Your comment is noted and all of the above information will be provided within the Draft S24G Report which will be made available for public review.

4. The applicant will ensure that competent staff members are employed for the operation of the feedlot. The comment regarding the impacts to be considered is noted and will be addressed within the EIA process.

5. A Proper registered EAP has to be appointed to report on the impact on the Magaliesberg Biosphere, existing adjacent farming and tourism activities such as Guesthouses, Wedding venues and Hiking trails in the Biosphere area (noise, smell and dust pollution). If not all animals are going to be kept in the feeding pens the whole time, proper fencing is required to make sure animals stay within the borders of portion 95. Over-grazing in the Magaliesberg CORE Biosphere area with scarce vegetation is also not allowed. Proper photos and location maps (Google Earth and ground level) and maps showing the Magaliesberg Biosphere areas and access roads to the feeding lot will be required.

6. The impact on the R104 and servitude roads on adjacent farms with heavy vehicles transporting animals and food for the feeding lot and removal of waste has to be investigated by SANRAL and Madibeng Traffic department and reported on. The R104 in front of that farm is non-existent, or very narrow and where any tar is left at all, it is full of huge potholes. This is due to a large Commercial Blueberry Farm next to portion 95 and the Chrome mines from Buffelspoort, Marikana and Mooinooi using the R104 to avoid the N4 toll road with toll fees and weighbridges. Furthermore, illegal Chrome wash plants and a sand mine and brick making businesses in the area (all without proper licenses) are using the R104 illegally with no intervention from SANRAL or the Madibeng traffic department or any relevant authorities. The R104 was not designed for such heavy traffic with 34-ton trucks (18-wheelers) transporting goods. Existing Farmers in the area with 10-ton trucks have to transport their Citrus and Vegetables to the Factories, markets and packhouses via Mooinooi and the N4, as their trucks/bakkies can't use the R104 road at all anymore.

5. Your comment is noted and will also be considered and addressed within the EIA process.

6. It is noted that the R104 is currently not in a good/driveable condition. This aspect will also be considered within the S24G Report.

Major additional transport costs for existing farmers and residents and tourists (longer route to travel via Mooinooi / Buffelspoort) to get to the N4 instead of using the R104 via Majakaneng to get to the N4. You need a 4x4 vehicle to drive the road from the Berry farm next to Portion 95, through Majakaneng to get access to the N4 highway to the factories and markets in Brits/Pretoria/Johannesburg and hope to not lose a tyre in the process.

7. The community is also aware of a planned application of an Abattoir by Bila Foods just North of this property to slaughter the animals. Even more heavy vehicles to transport the meat and more pressure on the availability of water to run an Abattoir in the Groenkloof 464 JQ and adjacent Buffelsfontein 465 JQ areas with underground water already being depleted by Chrome mines North of both of these two farms blasting open crucial underground water veins. That water dammed up by the chrome mines can't be used again as it is contaminated with heavy metals, Chrome 6 and Acids/Chemicals used in their washing and smelting processes.
8. Please confirm if Company enterprise number K2024330395, Bila Foods Pty Ltd, registered June 2024, with Mr Richard Fani Bila as the Director, is the correct details for the applicant (reference attached). The same Director of Bila Mining Pty Ltd that owns Portion 95 of Groenkloof 464 JQ and various other portions recently bought in Groenkloof 464JQ, Buffelsfontein 465JQ and Elandskraal 469JQ – majority of these properties for the use of open pit Chrome and Sand Mining.

7. An EIA and WUL with associated Geo-Hydrological Assessment is currently in process for the proposed abattoir as well. It is proposed that only groundwater be used for the proposed abattoir and the findings of the Geo-Hydrological Assessment will provide more clarity on the availability of groundwater (taking other groundwater users into consideration).
8. We can confirm that the applicant for the Abattoir as well as the Feedlot is Bila Foods (Pty) Ltd. As for confirmation regarding the owners of the other properties, this is unknown to Core Environmental Services. Core Environmental Services is currently undertaking the required EIA and WUL for the abattoir and feedlot respectively on portions 55 and 95 of the farm Groenkloof 464-JQ.

Mr & Ms. Venter (1 December 2024):

Thanks for draft report.

As effective party registrar the following aspects.

1. The feedlot and abattoir assessment docs are one document and only some aspects are covered for the feedlot.
2. Although electricity supply can be seen as a separate issue, if no back up system is in place bad odours can very easily become very high.
3. Blood, according to me, is a hazardous substance and must be clarified as such. (high risk).
4. Effluent odours can sometimes be overwhelming and therefore a fragrance can be sprayed constantly around ponds.

Response by EAP (7 December 2024):

At the onset it must be noted that some of the comments are related to the application submitted for the abattoir and not for the feedlot. However, as some of the comments relates to the feedlot, the comments have also been included within this report. Comments and response associated with the feedlot, is underlined.

1. The feedlot and abattoir are following different environmental regulatory processes in terms of NEMA, 107 of 1998 and therefore the documents are separated. The Draft BA Report for the red meat abattoir was recently circulated for review and the Section 24G Report for the Feedlot will be circulated shortly.
2. Comment is noted. The client will be making use of solar panels on the roof as an additional means of electricity supply.
3. This is noted and therefore the abattoir is designed according to standards. Blood will be collected and transported off-site.
4. Animal waste is the contents which is the root cause of bad odours. The water which will be going to the ponds is only water which is used for the cleaning of the abattoir. However, it must be noted that most of the animal waste is collected prior to water going to the

5. All waste especially animal carcasses and offal waste to be dispose at class B stay the generators responsibility and accountability for the correct dispose and kept of all docs.

6. Burial area for condemned meat must be provided.

7. Which incinerator and where is going to be used for condemned meat and or carcasses?

8. Suggest that the effluent ponds must be big enough to accommodate at least 3 days of slaughter wastewater.

9. Please supply me with participation of the slaughtering plant (surrounding landowners and newspapers).

10. The climate maximum temperatures nowadays average of 35. (therefore, the big concern of lack of power the escalation of bad odours\ flies are a high risk).

ponds. Blood is collected within the abattoir and fats and rumen is collected in a sump before it goes to the ponds. In normal circumstances, the ponds do not produce any odours.

5. Noted and agreed. The applicant must keep proof of where any waste is disposed.

6. No burial will be on site. This is normally the main cause of bad odour. All condemned meat will be refrigerated and then removed from site where it can be disposed of.

7. There will not be any incineration on site. All condemned products will be transported off-site to a facility that can accommodate and dispose of such waste.

8. The effluent ponds have been designed by a qualified engineer, specialising in abattoir management. The ponds have been designed to accommodate the volume of wastewater according to standards.

9. The Newspaper advert and BID and Stakeholder and IAP list was provided within Appendix C of the Report. For ease of reference, please see the link again to the Draft BA Report which was made available for review:

<http://www.coreenviro.co.za/publicparticipation.html>.

11. Heaps of waste materials on site for extended periods can be problematic and if not address the biggening can be a massive problem.

12. Impact on water resources Point 7.1.2 Mitigating measurements a [separate store for oil products and separate store for oil Tello from carcasses].

13. Impact associated with the operations of the feedlot not clearly explained.

14. Point 7.2.2. Health and odour impact of holding bins and abattoir surfaces not washed \ clean constantly need mitigating factor, Clean daily after every slaughter and maintenance plan.

15. I see the Effluent Ponds and Feedlot on the Environmental Impact Statement Summaries as a separate Impact.

10. Comment is noted. The client will be making use of solar panels on the roof as an additional means of electricity supply.

11. The only waste to be stored outside an enclosed facility, would be the temporary storage of manure. Manure from the lairages will be collected and stored temporarily on a lined surface and then be removed from site where it can be used as fertiliser. All waste will be removed from site.

12. Section 7.1.2 refers to construction impacts. As for the operation, as explained all waste will collected and transported off-site. A sump will collect all fats prior to water being diverted to the effluent ponds.

13. The feedlot is a separate process, and all impacts associated with the feedlot will be addressed within the Section 24G Environmental Report which is still to be shared with all Interested and Affected Parties.

14. Thank you for your comment. This aspect has been included within the Environmental Management Plan (Appendix E) of the Report distributed for review. It will be stated more clearly in the EMP to be submitted to the Competent Authority for consideration.

15. Correct, the reports are separated as explained.

Mr. Marius Bornman (5 December 2024):

Email content:

Good Day Anne-Mari

Please find attached my input as a registered affected Party.

I do believe that Billa will not be stopped, I also already feel the impact It has on me as a resident and Neighbour to the Feedlot.

Flies and odour from the feedlot, and it is now an additional cost to me to give my pets some relief from the flies. Waste stockpiling should not be allowed and may reduce the impact. From tranquil and peace full living to animal noise, odour and flies.

Please let me know what my approach should be for Billa to buy me out (as I am willing to sell to avoid these living conditions he caused).

Formal letter attached to email:

FEEDLOT

As per the Environmental Management Act, 2004 including (No 107 Of 1998) (NEMA)

First of all, I would like to know if all licenses were issued and obtained by Billa as the feedlot is already in operation. I do see the applications that were made in the

document. Government Notices R. 543, R.544, R.545 and R.546 of the National

Environmental Management Act (107/1998): Environmental Impact Assessment

Regulations 2010 (Gazette No. 33306).

-AIR POLOTION

-WATER

-SOIL

-WASTE

-Impact on Neighbouring residents

We have already been seeing an increase in insect(flies) population that in the first month has a great impact on our domestic animals and inside our homes. The odour is also building up. Waste stockpiles should not be allowed in this area as it is too close to the residents. This shows that the environmental impact study was not done with efficiency as the environmental act states at least 100m from your neighbours fence, this lot is right next to the fence. National Health Act of 1977.

Electricity – We have an ESKOM problem running 3 years now. As per ESKOM, the line is overloaded and we have daily supply interruptions which we still have to pay for. With the additional housing, feedlot and abattoir of Bila, we will have more interruptions and less electricity supply unless they include solar power.

Water – This is not a strong water area in terms of borehole rate L/min. Cows each consumes at least 50L of water per day, with the plan of 2000 = 100 000L of water per day, where will that leave us residents.

Run offs - Soil, this is coarse and sand soil which has a high penetration rate, thus not the best suitable for waste runoff.

The Lot is next to a Spring that runs when it rains.

We have the right to a clean, safe and healthy environment – Environmental Management Act, 2004 Part 2, 4.

This feedlot is impacting us. For Bila having a feedlot is not the problem, the issue is that it is too close to us contravening the law and our rights. Best to buy me out and the issue is sorted, Under the Law of Delict and Law of Neighbours.

3 CONSIDERATION OF ALTERNATIVES

The EIA process requires the developer to identify and investigate/assess feasible and reasonable alternatives. The project alternatives range from the location where the activity is proposed, type of activity to be undertaken, design of the activity, technology to be used in the activity to the option of not implementing the activity (No-Go Alternative).

The assessment of the alternatives is a complicated and multi-faceted issue, which is essential to the success of this application and ultimately to the proper, responsible and sustainable operation of the proposed project.

3.1 Alternative Selection

3.1.1 Location alternatives

No other locality alternatives could be investigated as the application is for a S24G Environmental Authorisation application of which construction for the feedlot have already commenced and is largely complete. As the feedlot has been constructed on an area which were already transformed by previous agricultural activities, investigating other locality alternatives would have only been considered if the site was found to be highly sensitive from an environmental and social perspective.

As the site was previously transformed and used for agricultural activities, no other location alternatives were considered.

3.1.2 Alternatives in terms of the size of the operation

Initially, the applicant proposed to establish and operate a feedlot of a much larger size (approximately 120Ha). However, following the site assessments, Ecological Assessment, Heritage Assessment and Geo-Hydrological Assessment, alternatives to the size of the feedlot was investigated to accommodate the sensitivity of the Critical Biodiversity Area (CBA), the Magaliesberg Natural Area and Protected Environment and also to ensure that the number of cattle to be accommodated, will meet the volume of groundwater which is available to be abstracted sustainably.

For this reason, the size of the feedlot was significantly reduced to only affect the area which has already been disturbed by previous agricultural activities, totalling an area of approximately 19Ha and restricting the feedlot to a carrying capacity of 2400 cattle, 500 sheep and 500 goats.

3.1.3 Layout Alternatives

The layout of the proposed feedlot had to make provision for the space which is required for cattle (per head). The number of camps is therefore regulated by the fact that 14m² per head of cattle is required. At first, provision was only made for 48 camps to be established. However, this would have resulted

to cattle having only approximately 6m² of space per head. The number of camps were therefore increased to 100 camps for cattle with each camp being approximately 500m² in size. It is proposed that each camp accommodate approximately 24 cattle, thus providing each head of cattle with approximately 20m² of space which is sufficient in terms of Environmental Guidelines (*Environmental Guidelines for Beef Cattle Feedlots in South Africa*).

The layout of the feedlot had to be revised to accommodate the recommendations stipulated within the Environmental Guidelines.

3.1.4 No-Go alternative

The no-go alternative would be to not authorise the application for environmental authorisation and water use license application for the construction and operation of the feedlot. Should this alternative be favourable, all structures and infrastructure which have already been constructed, would have to be removed and the area would have to be rehabilitated.

Following the assessment of the site and the proposed activities undertaken, the positive socio-economic impacts associated with the construction and operation of the feedlot were found to outweigh the negative impacts associated with the project. It is believed that the negative impacts associated with the operation of the feedlot, can be mitigated to have a reduced significance on the surrounding environment and for this reason, the no-go alternative was not further investigated.

4 DESCRIPTION OF THE AFFECTED ENVIRONMENT

The description of the affected environment below draws on existing knowledge from published data, previous studies, specialist investigations, and site visits to the area.

4.1 Topography

The topography of the larger area between Mooinooi and Majakaneng is approximately 1,200 meters. The Magaliesberg is located towards the south of the larger project area and is approximately 1600m above mean sea level. The Magaliesberg is located approximately 3km south of the project site. Please refer to Figure 2 below indicating the topography of the general project area.

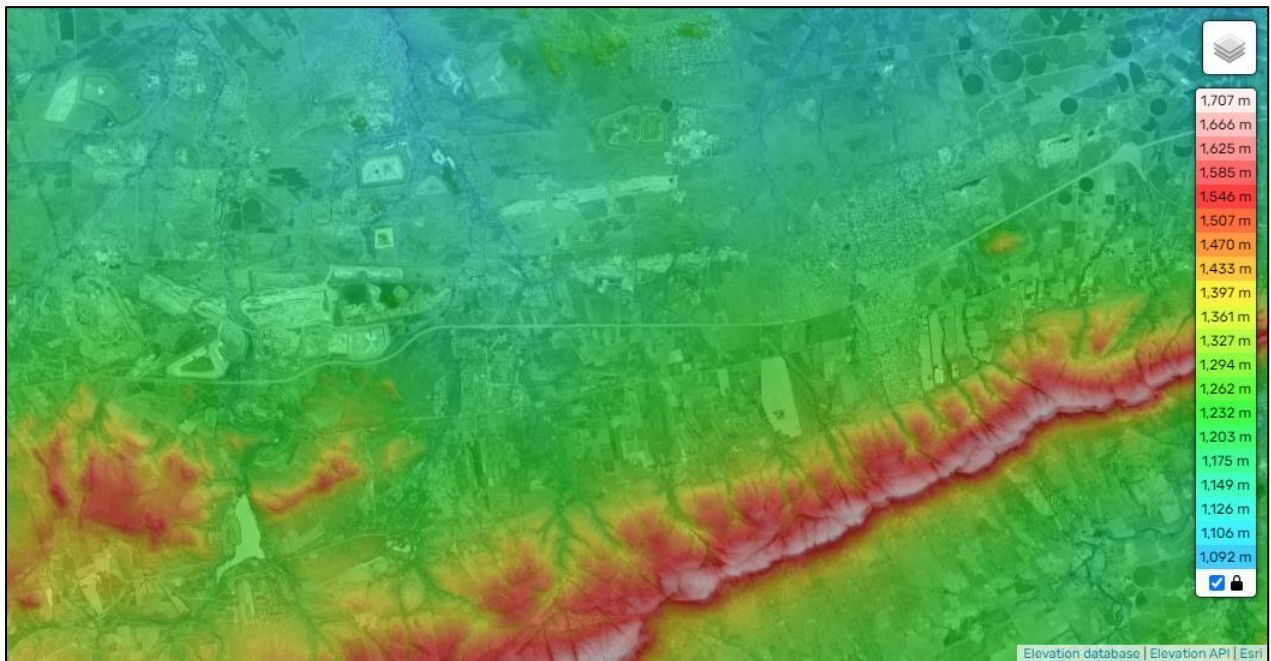


FIGURE 2: TOPOGRAPHY OF THE LARGER AREA WITHIN WHICH THE ABATTOIR IS PROPOSED

Source: <https://en-za.topographic-map.com/map-zl6x3q/Mooinooi/?center=-25.71591%2C27.5218&base=5&lock=12%2C1092%2C1707>

The topography of the area where feedlot is located, is relatively flat, sloping very slightly towards the north of the project site.

In terms of topography, the project site is suitable for the feedlot development.

4.2 Climate

The North-West Province has a climate that varies based on altitude and geographical location. The local area is characterized by warm to hot climatic conditions, with a mean maximum temperature of 28°C in January and 20°C in June.

The site is situated in a semi-arid region with a summer rainfall pattern. The area receives an annual average rainfall of approximately 650mm, with most of the precipitation occurring between October and March. Winter rainfall is minimal to nearly non-existent, with the lowest average rainfall of about 3mm during the month of July.

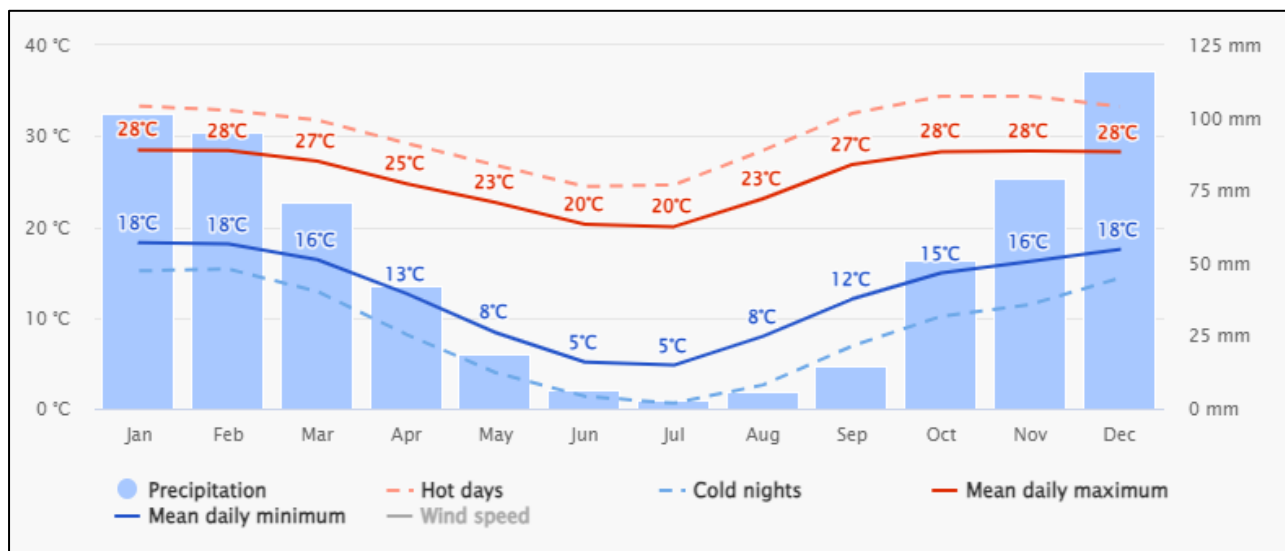


FIGURE 3: CLIMATE GRAPH FOR MOOINOOI, LOCATED NEAR BILA FEEDLOT

Graph source:

https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/mooinooi_south-africa_974331

As for the wind speed and direction within the project area, it is noted that stronger winds are experienced from December to April while calm winds are experienced between June and October. Wind direction is mostly from the South-South-West (SSW) towards the North-North-East (NNE).

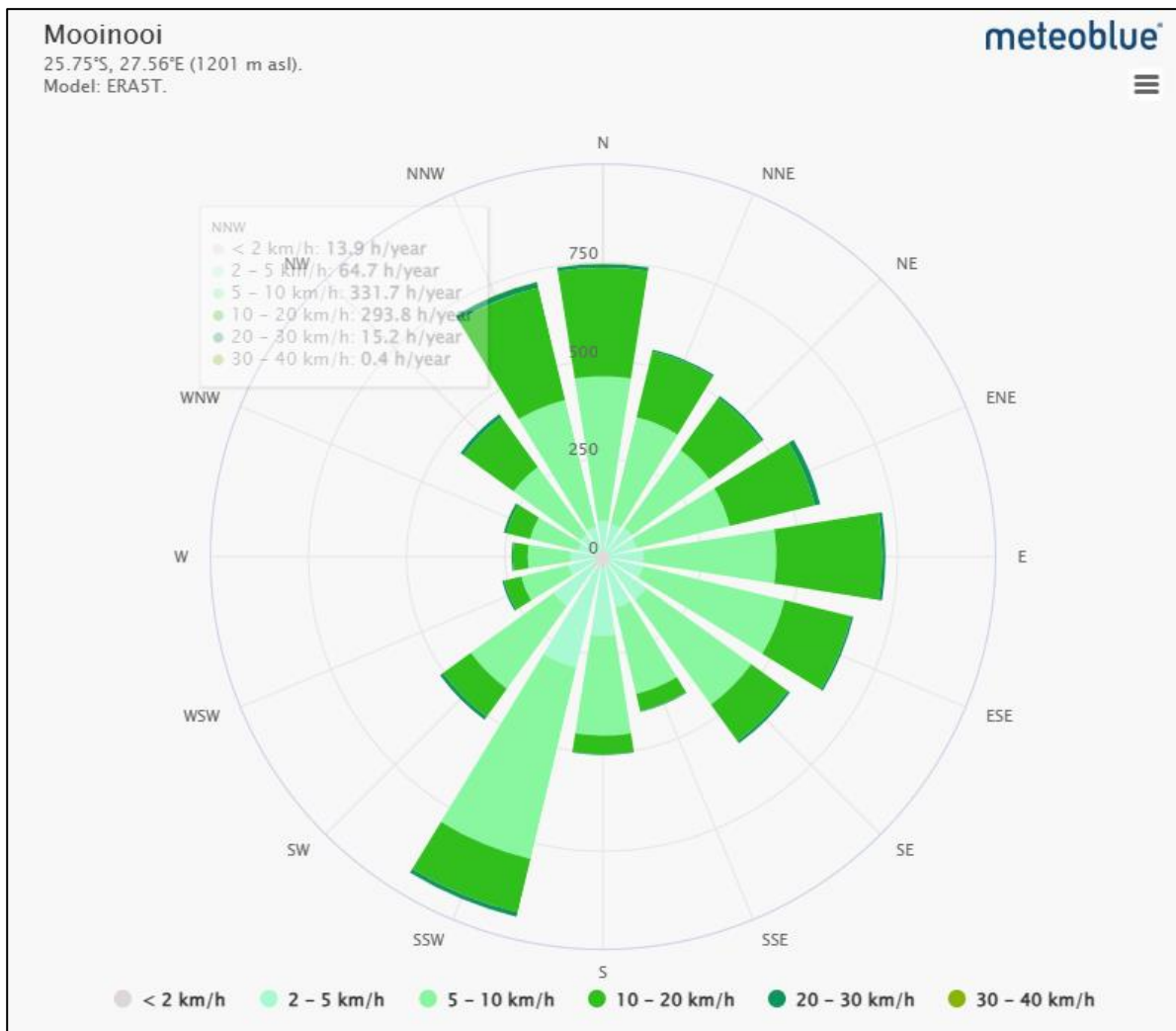


FIGURE 4: WINDROSE OF MOOINOOI, NORTH-WEST PROVINCE

Map Source:

https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/mooinooi_south-africa_974331

4.3 Terrestrial Ecology.

The study area is located within the Magaliesberg Biosphere which consists of three biomes and various habitats. This unique and varied geology and topography provides a multitude of habitats and ecological niches and micro-climates that support a vast array of biodiversity across the Magaliesberg landscape.

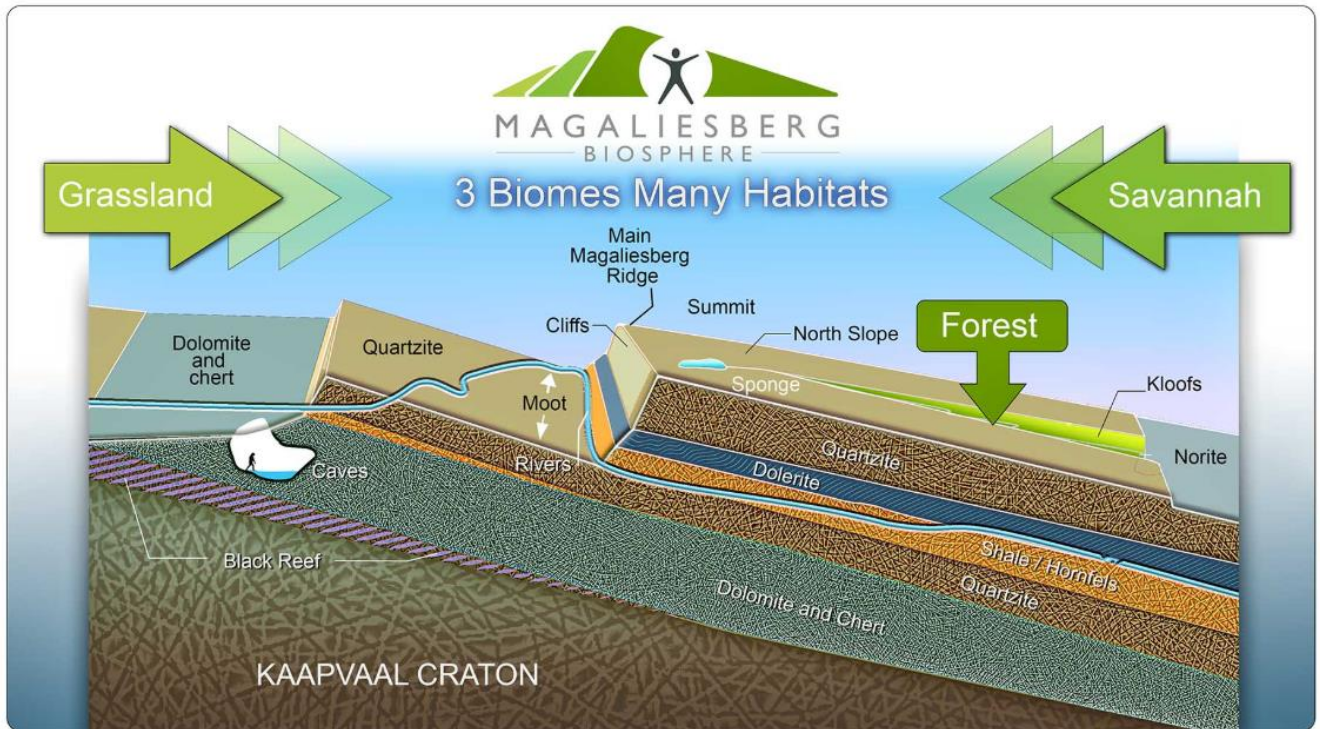


FIGURE 5: VISUAL REPRESENTATION OF THE MAGALIESBERG BIOSPHERE
 Map Source: <https://magaliesbergbiosphere.org.za/geology-topography/>

The feedlot site is however located within the Savanna Biome of the North-West Province and is characterized by a mix of grassland and scattered trees. The landscape features generally comprise of open to closed often thorny savanna dominated by various species *Acacia*, with grasses dominating the herbaceous layer.

The regional veld type is classified by Acocks (1953) as Moot Plains Bushveld (SVcb5) and as Central Bushveld (SVcb1) by Low & Rebelo (1998). This ecosystem is rated as vulnerable as approximately 28% of the vegetation type have been transformed by cultivation and urban built-up areas (Mucina & Rutherford, 2006). This vegetation type is found predominantly in the North-West Province and parts of Gauteng, extending from the rocky outcrops near Rustenburg to the surrounding bushveld regions.

Important taxa associated with this vegetation type is listed in Table 4:

TABLE 4: IMPORTANT TAXA ASSOCIATED WITH THE MOOT PLAINS BUSHVELD

Trees and Shrubs
Scientific Name
<i>Acacia nilotica</i>
<i>Acacia tortilis subsp heteracantha</i>
<i>Searsia lancea</i>
<i>Buddleja saligna</i>
<i>Eucleu undulata</i>
<i>Olea eruopaea subsp Africana</i>
<i>Grewia occidentalis</i>
<i>Gymnosporia polyacantha</i>
<i>Mystroxyton aethiopicum subsp burkeanum</i>

<i>Aptosimum elongatum</i>
<i>Felicia fascicularis</i>
<i>Lantana rugosa</i>
<i>Teucrium trifidum</i>
<i>Kalanchoe paniculata</i>
Woody and Herbaceous Climber
Scientific Name
<i>Jasminum breviflorum</i>
<i>Lotononis bainesii</i>
Graminoids
Scientific Name
<i>Heteropogon contortus</i>
<i>Setaria sphacelate</i>
<i>Themeda triandra</i>
<i>Aristida congesta</i>
<i>Chloris virgata</i>
<i>Cynodon dactylon</i>
<i>Sporobolus nitens</i>
<i>Tragus racemosus</i>
Herbs
<i>Achyroopsis avicukaris</i>
<i>Corchorus asplenifolius</i>
<i>Evolvulus alsinoides,</i>
<i>Helichrysum nudifolium</i>
<i>Helichrysum undulatum</i>
<i>Hermannia depressa</i>
<i>Osteospermum muricatum</i>
<i>Phyllanthus maderaspatensis</i>

Based on the North-West Biodiversity Plan (NWBP, 2015) the project area falls within a Critical Biodiversity Area (CBA). Please refer to Figure 4 below

A CBA is an area that must remain in good ecological condition in order to meet biodiversity targets for ecosystem types, species of special concern or ecological processes. CBAs can meet biodiversity targets for terrestrial or aquatic features, or both. Together with protected areas, the portfolio of CBAs identified in a biodiversity plan must collectively meet biodiversity targets for representation of ecosystem types and species of special concern and may also meet biodiversity targets for some ecological processes. It is however noted that the larger portion of the project area where the feedlot has been constructed, were previously used for agricultural activities (crop farming), since 1964. The project area was therefore already completely disturbed by previous agricultural activities. Please refer to Figure 5 (aerial images of the project site for the year 2016 as well as 2020)

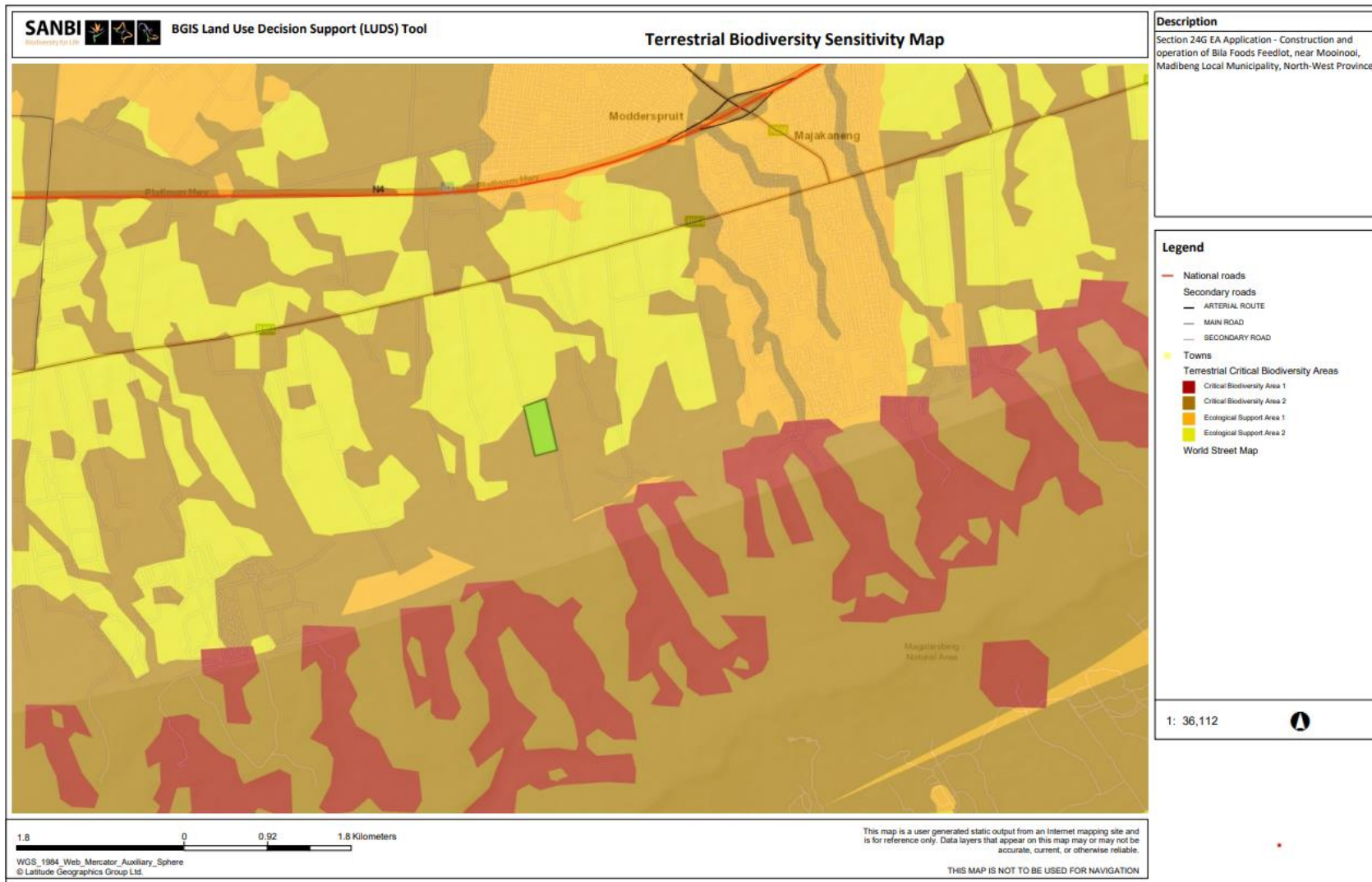


FIGURE 6: TERRESTRIAL ECOLOGICAL SENSITIVITY OF THE PROJECT AREA ACCORDING TO THE NORTH-WEST BIODIVERSITY PLAN (2015)

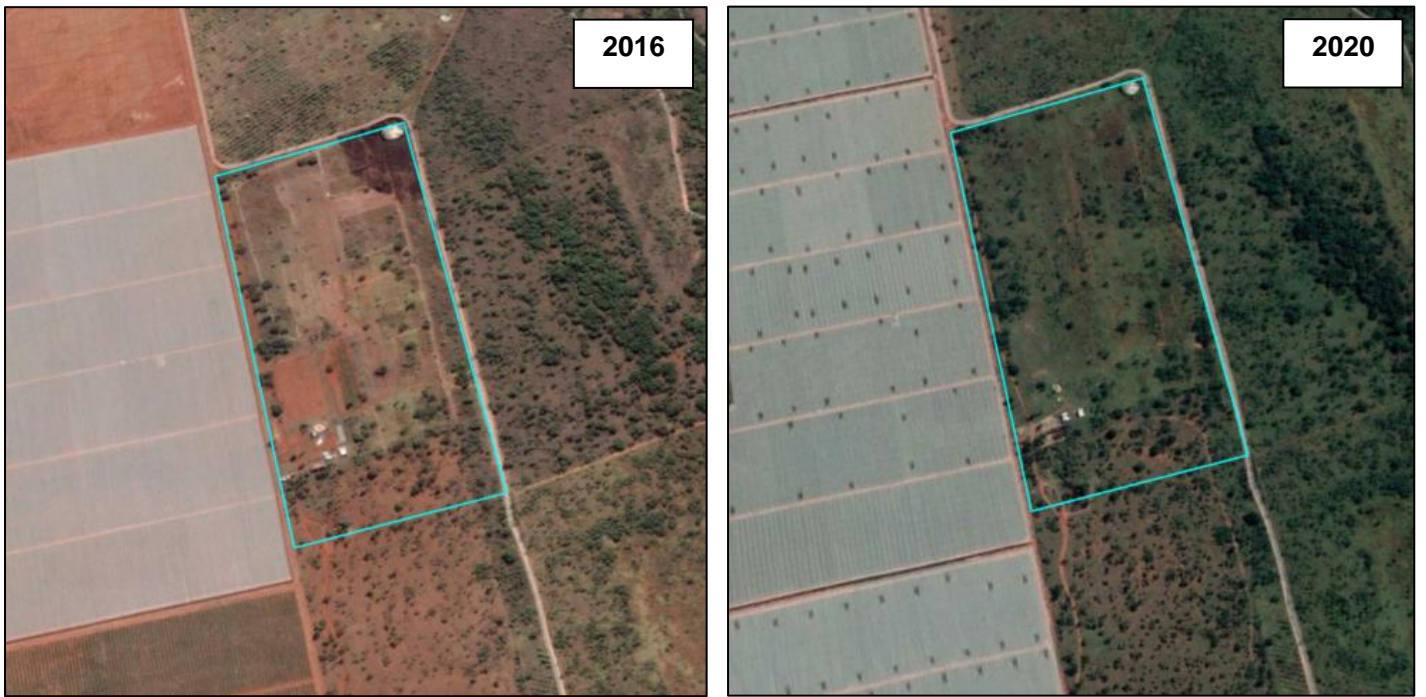


FIGURE 7: AERIAL IMAGES DEMONSTRATING THE PROJECT AREA AND TRANSFORMATION IN 2016 UP TO 2020/2021

4.4 Surface and Groundwater

The project area falls within the Limpopo Water Management Area. The nearest surface water body from the project site is the Kareespruit which is located approximately 3.5km east of the project site. The Kareespruit originates within the Magaliesberg, located approximately 2km south of the feedlot project area and is noted as a National Freshwater Ecosystem Priority Area (NFEPA). Historic impacts recorded within the Sub-Quaternary Reach include: largescale agricultural activities, abstraction for irrigation, algal growth (nutrient input), low water crossings, alien invasive vegetation, mining and runoff from urban areas.

Approximately 22km north of the project area, the Kareespruit flows into the Crocodile River which flows into the Roodekoppies Dam located near Brits, North-West Province.

It is however noted that within the perimeter of the project site, there are no surface water resources or wetland areas identified.

4.5 Land use

As noted in Figure 7, the project site has been used for cultivation purposes prior to 2015, focussing mainly on crop cultivation. The surrounding land uses are also characterised by agricultural activities, with Nyami Berries cultivating berries directly adjacent and west of the feedlot.

The applicant, Bila Foods, is also currently in the planning phase of the development and operation of an abattoir which is proposed on portion 55 of the farm Groenkloof 464-JQ, approximately 1km to the north of the feedlot.

4.6 Geology and Soils.

About 2000 million years ago the mountain ranges of the Magaliesberg region were formed when massive intrusions of molten magma steadily formed a 65000 km² expanse of solid igneous rock over and between existing sedimentary layers. Under the weight of the magma, the sedimentary layers (made up of a base-layer of Black Reef, overlaid by semi-soluble dolomite and chert which was later topped by alternate layers of quartzite and shale) tilted upwards through the magma at the edges of the igneous intrusion to form a series of semi-concentric mountain ranges of tilted sedimentary layers at the southern perimeter of the igneous mass. Over millions of years of weathering and erosion, resistant quartzite and shale formed the ridges of the Magaliesberg, Witwatersberg and other smaller chains (Carruthers, 2015).

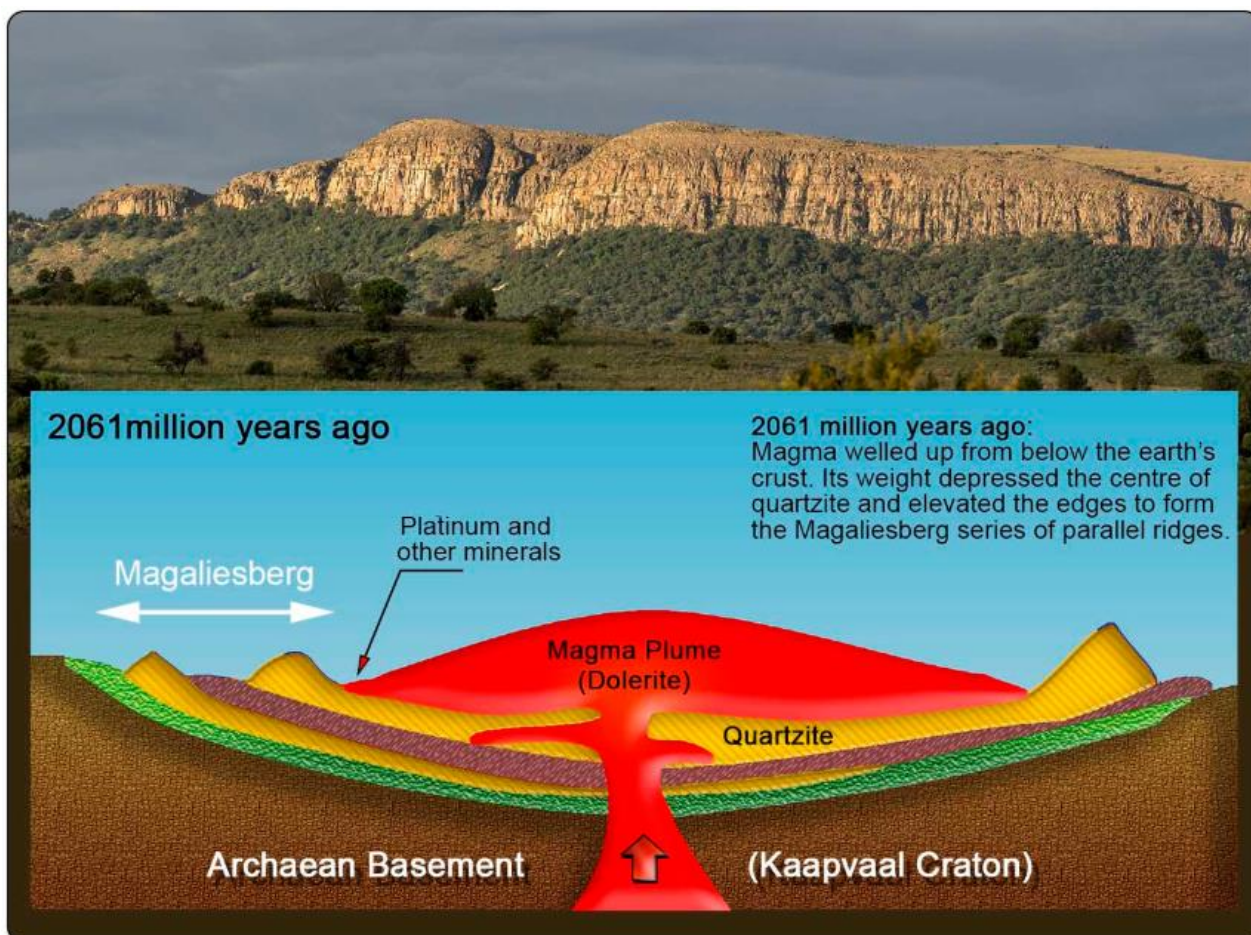


FIGURE 8: VISUAL REPRESENTATION OF THE MAGALIESBERG GEOLOGICAL PROFILE
 Map Source: <https://magaliesbergbiosphere.org.za/geology-topography/>

In terms of the published geological map sheet of South Africa, Council for Geoscience (2014), the area is underlain by mafic and ultramafic rocks of the Bushveld Igneous Complex, primarily composed of norite, pyroxenite, and anorthosite. These rock formations are part of the Critical Zone of the Bushveld Complex, known for its rich deposits of platinum group metals, chromite, and vanadium. The Bushveld Igneous Complex is one of the largest layered igneous intrusions in the world, and the Critical Zone is particularly significant for its mineral wealth.

The soils in the study area are typically shallow to moderately deep and are derived from the underlying mafic rocks. A topsoil horizon of approximately 0.2 to 0.4 meters thick is present throughout the site, consisting mainly of brown, sandy loam with scattered gravels. This topsoil is rich in organic material, supporting the grassland vegetation typical of the area. Below the topsoil, the subsoil consists of weathered norite and pyroxenite, which contribute to the soil's moderate fertility and good drainage characteristics.

The underlying bedrock is highly weathered near the surface, transitioning to more solid and less weathered norite and pyroxenite at greater depths. These rocks are known to have moderate to high clay content in their weathered state, which can affect the soil's physical properties, including its plasticity and permeability. The presence of these weathered rocks also influences the soil's structure and stability, which are important considerations for any potential development on the site.

4.7 Heritage.

The Magaliesberg Biosphere Reserve was proclaimed an international Biosphere Reserve by United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2015. To provide some background of the history of the Magaliesberg Biosphere, it is noted that the beginnings of transformation of the natural state date back to 1600AD with the stonewalled settlements of the Batswana people. They practiced agriculture and metal forging, which came with clearing of grassland for cultivation, woody biomass for fire, building material and other utilitarian goods, and the mining of surface and later, underground ore deposits. By the nineteenth century settlement and trade routes were established, and this time also saw the beginnings of successive invasions/settlement by Pedi, Ndebele and Voortrekker groups. It was also the time of missionary visits and scientific and hunting expeditions, by Voortrekker and European parties, where much of the mega fauna in the region was hunted to extinction (Carruthers, 2015).

The towns of Rustenburg and Pretoria were already established during the South African War of 1899 – 1902 and the railway between these towns opened in 1906. The pioneering discoveries of substantial mineral deposits began from 1865, when chrome was discovered north of the Magaliesberg in the bushveld complex, as well as small deposits of other minerals (silver and copper). Gold was discovered in 1875 in the Cradle of Humankind around Kromdraai. About a hundred years ago, the beginnings of political social engineering (apartheid) saw ancestral Tswana and Ndebele territories being declared 'tribal areas' in the north while all other land was owned by British and Boer farmers. So called 'Tribal Areas' later became the Homeland of Bophuthatswana, and the source of labour for the platinum mining industry which took off from 1920 (Carruthers, 2002).

Due to regulatory requirements stipulated within Section 38 of the NHRA, as well as the rich history of the surrounding project area, a Heritage Impact Assessment (HIA) was conducted by an independent heritage management consultant, to ensure that no artefacts, buildings or structures which could be of historical or cultural significance, is affected by the operation of the feedlot.

Although the larger portion of the project site has already been transformed by previous agricultural activities, approximately 10Ha of the project area has not yet been disturbed but is however proposed to be used for the activities associated with the feedlot. For this reason a Heritage Impact Assessment was undertaken to determine whether there are any artefacts or buildings within the project area and surrounding vicinity, which could be of cultural or historical significance.

The following conclusions could be made following the site assessment by the Heritage Specialist:

- The ruins of the farmhouse and outbuildings within the project site are of a recent nature and are not older than 60 years.
- No archaeological or heritage features were observed, and no graves were identified during the field survey.

4.8 Socio-Economic Environment

The Northwest Province has a population of about 4.1 million people, representing approximately 7% of South Africa's total population. Madibeng Local Municipality has an estimated population of 536,000 people as of 2020 and is expected to grow steadily over the next decade. The municipality contributes significantly to the Bojanala Platinum District Municipality, which is one of the economic hubs of the province due to its proximity to the mining sector.

Out of the total population, approximately 38% are youth (aged 15-34). The employment rate in Madibeng stands at 48%, with 37% unemployment and 15% economically inactive. The unemployment rate has been influenced by fluctuations in the mining industry, with youth unemployment particularly high, estimated at around 40% for those aged 15-24. A significant portion of the population, approximately 32%, lives below the lower-bound poverty line, with poverty levels having increased due to economic challenges and the impact of the COVID-19 pandemic.

Madibeng Local Municipality has a functional literacy rate of approximately 82%, reflecting the region's educational challenges. The matric pass rate has shown variability, typically around 75%, but saw a slight decline in 2020, likely due to disruptions caused by the pandemic. The municipality has a lower rate of university admissions compared to provincial averages, with around 30% of matriculants qualifying for degree studies.

Economically, Madibeng contributes around 10% to the provincial GDP, largely driven by the mining and agriculture sectors. The total size of the Madibeng economy in 2020 prices was estimated to be R20 billion. The municipality's economic growth has been modest, with an average growth rate of 1.5% between 1996 and 2019, but like many areas, it experienced a downturn in recent years, with growth slowing to 0.5% from 2014 to 2019.

5 METHODOLOGY OF ASSESSING THE SIGNIFICANCE OF IMPACTS

This section outlines the method used for assessing the significance of the potential environmental impacts.

For each impact, the **EXTENT** (spatial scale), **MAGNITUDE** and **DURATION** (time scale) would be described, as shown in Table 5. These criteria are then used to determine the **SIGNIFICANCE** of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The mitigation described in the Report represents the full range of plausible and pragmatic measures but does not necessarily imply that they would be implemented.

The following tables show the scale used to assess these variables and defines each of the rating categories.

TABLE 5: ASSESSMENT CRITERIA FOR THE EVALUATION OF IMPACTS

Criteria	Category	Description
Extent or spatial influence of impact	Regional	Beyond a 30km radius of the candidate site.
	Local	Within a 30km radius of the candidate site.
	Site-specific	On site or within 100 m of the candidate site.
Magnitude of impact (at the indicated spatial scale)	High	Natural and/ or social functions and/ or processes are <i>severely</i> altered
	Medium	Natural and/ or social functions and/ or processes are <i>notably</i> altered
	Low	Natural and/ or social functions and/ or processes are <i>slightly</i> altered
	Very low	Natural and/ or social functions and/ or processes are <i>negligibly</i> altered
	Zero	Natural and/ or social functions and/ or processes remain <i>unaltered</i>
Duration of impact	Long-term	More than 10 years after construction
	Medium-term	Up to 5 years after construction
	Construction-term	Up to 3 years

The **SIGNIFICANCE** of an impact is derived by considering magnitude, duration and extent of each impact. The criteria employed in arriving at the different significance ratings is shown in Table 6.

TABLE 6: DEFINITION OF SIGNIFICANCE RATINGS

Significance ratings	Level of criteria required
High	<ul style="list-style-type: none"> • High magnitude with a regional extent and long-term duration • High magnitude with either a regional extent and medium-term duration or a local extent and long-term duration • Medium magnitude with a regional extent and long-term duration
Medium	<ul style="list-style-type: none"> • High magnitude with a local extent and medium-term duration • High magnitude with a regional extent and construction period or a site-specific extent and long-term duration • High magnitude with either a local extent and construction period duration or a site-specific extent and medium-term duration • Medium magnitude with any combination of extent and duration except site specific and construction period or regional and long term • Low magnitude with a regional extent and long-term duration
Low	<ul style="list-style-type: none"> • High magnitude with a site-specific extent and construction period duration • Medium magnitude with a site-specific extent and construction period duration • Low magnitude with any combination of extent and duration except site specific and construction period or regional and long term • Very low magnitude with a regional extent and long-term duration
Very low	<ul style="list-style-type: none"> • Low magnitude with a site-specific extent and construction period duration • Very low magnitude with any combination of extent and duration except regional and long term
Neutral	<ul style="list-style-type: none"> • Zero magnitude with any combination of extent and duration

Once the significance of an impact has been determined, the **PROBABILITY** and **CONFIDENCE** of this impact are determined using the rating systems outlined in Table 7 and Table 8. The significance of an impact should always be considered in concert with the probability of that impact occurring. Lastly, the **REVERSIBILITY** of the impact is estimated using the rating system outlined in **Table 9**.

TABLE 7: DEFINITION OF PROBABILITY RATINGS

Probability ratings	Criteria
Definite	Estimated greater than 95 % chance of the impact occurring.
Probable	Estimated 5 to 95 % chance of the impact occurring.
Unlikely	Estimated less than 5 % chance of the impact occurring.

TABLE 8: DEFINITION OF CONFIDENCE RATINGS

Confidence ratings	Criteria
Certain	Wealth of information on and sound understanding of the environmental factors potentially influencing the impact.
Sure	Reasonable amount of useful information on and relatively sound understanding of the environmental factors potentially influencing the impact.
Unsure	Limited useful information on and understanding of the environmental factors potentially influencing this impact.

TABLE 9: DEFINITION OF REVERSIBILITY RATINGS

Reversibility ratings	Criteria
Irreversible	The activity will lead to an impact that is in all practical terms permanent.
Reversible	The impact is reversible within 2 years after the cause of the impact is removed.

6 ENVIRONMENTAL IMPACT ASSESSMENT

6.1 Construction Phase Impacts

A section of the feedlot has already been constructed, however, as for the remainder of the feedlot to still be constructed, the following aspects must be addressed:

- *Soil Pollution*
- *Impact on biodiversity*
- *Impact on water resources*
- *Generation of dust*
- *Generation of noise*
- *Generation of waste*
- *Impact on traffic*
- *Socio-economic impact*

Due to the temporary nature of the construction phase and the fact that most of the construction activities have already been completed, the cumulative impact was only assessed for the operational phase of the project and not for the impacts associated with the construction phase.

6.1.1 Impact on soil

Description of the potential impact

The construction of the feedlot could negatively impact soil through vegetation removal, increasing the risk of soil erosion as well as the loss of topsoil. Additionally, heavy machinery may compact the soil, reducing its water absorption and affecting plant growth. Accidental spills of hazardous substances like oil and fuel during refuelling or maintenance could lead to soil contamination, harming microbial processes and soil organisms which is essential for maintaining the health of soil.

Significance of the impact

During construction, soil could be impacted by the following:

- Erosion
- Contamination with the use and possible spillage of hazardous substances.

The slope of the proposed project area is relatively flat and for this reason the possibility of erosion occurring is low. The impact is subsequently classified to be of low significance prior to the implementation of mitigation measures.

Another factor impacting soil would be the possible spillage of hazardous substances. This impact is of medium magnitude, as natural functions and/or processes could be notably altered. The impact is however of site-specific extent and short duration and for this reason the impact is rated to be of low significance prior to the implementation of mitigation measures.

TABLE 10: IMPACT ON SOIL

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Erosion [NEGATIVE]	Medium	Site specific	Short term	Probable	Low	Very Low
Soil Contamination [NEGATIVE]	Medium	Site specific	Short term	Probable	Low	Very Low

Mitigation measures

- To minimise the possibility of erosion, it is recommended that no disturbed areas be left unattended. Disturbance and clearance of vegetative cover must be restricted to the proposed footprint.
- Measures to reduce the velocity of water, must be taken on areas prone to erosion.
- Should there be any spillage of hazardous substances during the establishment phase, soil must be removed up to a depth of 300mm and be disposed of at a registered hazardous waste disposal facility. Proof of such disposal must be kept on file.

6.1.2 Impact on Biodiversity

Description of the potential impact

A section of the vegetation (approximately 8Ha) has already been removed from site for the purposes of the feedlot. An additional 10Ha of vegetation is however still to be removed. An Ecological Assessment was undertaken to determine the ecological sensitivity of the site and it was found that the larger section of the project area was previously disturbed and used for agricultural practices, prior to the activities undertaken for the feedlot. The project area has therefore already been transformed. As for the vegetation still to be removed for the additional area required for the feedlot, it was noted that the biodiversity sensitivity was of low significance and therefore the aspect to rather be considered, is the spreading of alien invasive plant species during construction.

Significance of the Impact

Although it is acknowledged that the project site is located within a Critical Biodiversity Area (CBA) in terms of the North-West Biodiversity Plan (NWBP, 2015), it must be noted that the project area has been used for agricultural practises since 1964.

The possibility of the spreading of alien invasive plant species are however possible and due to the Magaliesberg Biosphere Protected Area, which is located within approximately 1km from the site, the

magnitude of the impact is regarded to be medium. The impact can however be mitigated to be of low significance following the implementation of mitigation measures.

TABLE 11: IMPACT ON BIODIVERSITY DURING CONSTRUCTION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Clearance of additional vegetation [NEGATIVE]	Medium	Site specific	Long term	Probable	Medium	Low
Spreading of alien invasive plant species [NEGATIVE]	Medium	Site specific	Short term	Probable	Low	Very Low

6.1.3 Air Quality (Dust)

Description of the potential impact

Vegetation will be removed, and soil will be disturbed during the construction phase of the project. Heavy moving vehicles will also be travelling on site, which could result to an increase in the generation of dust. During construction, dust could be generated, affecting adjacent landowners.

Significance of the impact

Nearby adjacent landowners could be affected by the generation of dust. The impacts associated with the generation of dust is however of short duration and therefore the significance of the impact is low. Mitigation measures must however be implemented to minimise the possibility of the impact occurring.

TABLE 12: DUST GENERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Dust generation [NEGATIVE]	Low	Site specific	Short term	Probable	Low	Very Low

Mitigation measures

- Areas may not be disturbed and left unattended for long periods of time.
- Heavy moving vehicles and other vehicles must adhere to a speed limit of 40km/h; and
- Recommendations included within the Environmental Management Plan must be adhered to.

6.1.4 Generation of noise

Description of the potential impact

During construction, construction activities and machinery could generate noise, affecting adjacent landowners/farm steads negatively.

Significance of the impact

Adjacent landowners/farm steads within a close proximity to the abattoir could be affected by the generation of noise during the construction phase, however, construction activities will be temporary and only occur during working hours. For this reason, the impact has been rated to be of low significance. Mitigation measures must however be implemented to further minimise the possibility of the impact occurring.

TABLE 13: NOISE GENERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Noise generation [NEGATIVE]	Low	Site specific	Short term	Probable	Low	Very Low

Mitigation measures

- Ensure that all construction equipment is well serviced as per the manufacture’s manual throughout the construction phase.;
- The requirements of the Noise Control Regulations (2013) must be adhered to.
- No loud music is allowed on site

6.1.5 Waste generation

Description of the potential impact

During construction, construction waste is generated by construction activities and personnel. Improper disposal of such waste could negatively impact the surrounding environment.

Significance of the impact

Waste generated during the construction phase include the following:

- Construction waste such as concrete, building rubble, hazardous substances.
- Domestic waste generated by construction workers on site.
- Effluent from temporary toilet / sanitation facilities

The improper disposal of such waste could result in surrounding environment to become polluted, and soil could be affected by hazardous substances. The magnitude of the impact is medium with a site-specific extent and short duration and therefore the impact is rated to be of low significance.

TABLE 14: WASTE GENERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Waste generation [NEGATIVE]	Medium	Site specific	Short term	Probable	Low	Very Low

Mitigation measures

- Ensure that sufficient sealable bins are provided on site during the construction phase and undertake daily litter patrols.
- Concrete mixing must take place on a lined surface.
- All hazardous substances must be stored within a bunded area.
- Recommendations included within the Environmental Management Programme must be adhered to.

6.1.5 Traffic Impact

Description of the potential impact

During the construction of the project, increased traffic volume from transporting materials and machinery may cause congestion and disruptions on local roads. This could lead to temporary road closures, lane restrictions, and heightened safety risks for both workers and the public. Additionally, the construction traffic may contribute to increased noise, air pollution, and accelerated wear and tear on road infrastructure. Effective traffic management and regular maintenance can help mitigate these impacts and ensure smoother construction operations.

Significance of the impacts

The increase in traffic volumes due to the transportation of materials and machinery during the construction phase, can lead to severe disruptions on local roads when considering the current condition of the R104 Provincial Road. These disruptions include congestion and could extend over a period of approximately 4 months. The increase in vehicular movement along the R104 during construction, could result to the further deterioration of the R104 Provincial Road and should the

Provincial Department of Public Works, Roads and Transport not address the current situation of the road, the impact could be of medium term.

For this reason, the impact has been assessed to be of medium magnitude prior to the implementation of mitigation measures.

TABLE 15: TRAFFIC IMPACT

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Traffic [NEGATIVE]	Medium	Site specific	Medium term	Probable	Medium	Low

Mitigation measures

- Traffic management plan must be drafted
- Road maintenance and repair to be undertaken by the DPWRT (it is noted that refurbishment of R104 infrastructure have commenced)
- Construction scheduling must be done to avoid peak traffic times
- Alternative roads to be utilised if possible
- Safety measures must be implemented.

7.1.6 Socio-economic Impact

Description of the potential impact

During construction, various temporary job opportunities will be created which will have a positive impact on the livelihoods of those employed.

In terms of safety and security, there is always risk associated when working with machinery and therefore it is essential that all workers comply with the Health and Safety Act 85 of 1993.

Significance of the impacts

Based on the methodology detailed in **Section 6**, the following ratings have been assigned to the ‘employment opportunities and impact associated with health and safety of employees respectively.

The job opportunities during the construction phase are short-lived and therefore the impact is only of medium (+) significance. In terms of the health and safety aspects of workforce, the significance of the impact has been rated to be of low significance due to the short construction timeframe. Mitigation measures must however be adhered to.

TABLE 16: SOCIO-ECONOMIC IMPACT

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Job Opportunities [POSITIVE]	Medium	Local	Short term	Definite	Neutral	Medium (+)
Health and Safety [NEGATIVE]	Medium	Site specific	Short term	Probable	Low	Very Low

Mitigation measures

The applicant and/or contractor must ensure that local residents receive preference for job opportunities where local labour might be required.

It is imperative that all personnel adhere to the Occupational Health and Safety Act 85 of 1998 and that no personnel enter any other surrounding properties.

6.2 Impacts associated with the operation of the feedlot

The following aspects must be addressed for the operation of the feedlot:

- *Water resource;*
- *Biodiversity*
- *Stormwater Management;*
- *Odour;*
- *Waste classification, storage and disposal;*
- *Health and Safety;*
- *Pests; and*
- *Socio-economic impact.*

6.2.1. Impact on Water Resources

Description of the potential impact

It is proposed that water be abstracted from four boreholes located on site and used daily for the operation of the feedlot. The availability of water is critical for the feedlot, as the livestock has a daily water demand which is essential for the success of the feedlot. However, possible over abstraction could result in the depletion of groundwater resources.

Although it is noted within Section 4.4 that the nearest surface water body resource is located approximately 3.5km east of the project site, the accumulation of manure on an unlined surface could become a source of pollution and a threat to underground aquifers as nitrates could leach into the groundwater. Nitrate in manure is largely present in manure as ammonia (NH₃) and is quickly nitrified through microbial action into NO₃ (Nitrate). Nitrate is an anion that is not absorbed by clay minerals or soil organic matter and if groundwater concentrations of NO₃ become too high, it is unsuitable for potable use.

It is however noted that the feedlot pads within the holding pens, consist of an interface layer to protect soils from the possibility of nitrates leaching into the soil and ultimately affecting the groundwater resource. Runoff from feedlot pens will be diverted to lined sedimentation ponds where water will be evaporated and the remaining sludge will be removed with the manure from the site.

Significance of the impacts

A desktop Geo-Hydrological Assessment was undertaken to determine the water availability for the project site and it was found that by utilising the four (4) boreholes on the property, the required water demand of approximately 190m³/day can sustainably be met.

Over abstraction of the groundwater resources could however result to the depletion of groundwater resources and should these boreholes be over abstracted, the impact on groundwater resources would be high. For this reason, the impact is of high magnitude, local extent and long-term duration. For this reason, the impact on the availability of water is assessed for be of high significance prior to the implementation of mitigation measures. However, should the abstraction of groundwater be managed, the impact would be reduced to be of low significance.

As for assessing the possible pollution of groundwater resources, it is acknowledged that the feedlot pads within the holding pens consist of an interface layer which prevents leaching of nitrates into the soil. Manure collected from these pens are also stored temporarily on an impermeable, covered area, in order to prevent seepage into the soil. From there, manure is transported off-site.

Should it be found that the operation of the site is causing leaching of nitrates into the soil and it affects the quality of the groundwater aquifer, the natural functions could be severely altered and therefore the impact is regarded to be of high magnitude, local extent and long-term duration prior to the implementation of mitigation measures. The impact is therefore assessed to be of high significance prior to the implementation of mitigation measures. However, by managing manure on site, the possibility of the impact occurring is low and therefore the impact could be reduced to be of low significance.

Cumulative Impact:

It is acknowledged that Bila Foods is also in the process of applying for a red meat abattoir approximately 1km north of the feedlot project site. The abattoir will also be utilising groundwater resources for operational purposes. It is also noted that other agricultural activities surrounding the site is making use of groundwater resources for their farming operations. Cumulatively, the additional abstraction of water from the groundwater resource could have a significant impact on the groundwater aquifer if not managed and metered. The impact is therefore of high magnitude, local extent and long-term duration and therefore the impact is therefore of high significance prior to the implementation of mitigation measures. However, by implementing mitigation measures, the impact would be reduced to be of low significance.

As a result of other surrounding activities (mining, agriculture and proposed abattoir), there could also be a cumulative negative impact on the quality of ground- and/or surface water resources. The impact is rated to be of medium magnitude, local extent and long-term duration and therefore the impact is regarded to be of medium significance prior to the implementation of mitigation measures.

TABLE 17: IMPACT ON WATER RESOURCES

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Impact on water availability [NEGATIVE]	High	Local	Long term	Probable	High	Low
Ground- and surface water pollution [NEGATIVE]	High	Local	Long-term	Probable	High	Low
Cumulative Impact						
Impact on water availability [NEGATIVE]	High	Local	Long term	Probable	High	Low

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Ground- and surface water pollution [NEGATIVE]	Medium	Local	Long-term	Probable	Medium	Low

Mitigation measures

- The applicant must take cognisance of the fact that water is a scarce resource and abstraction of the water from the groundwater resource must be managed in accordance with the Water Use License.
- Septic tank to be established on site must be regularly maintained;
- Groundwater quality and yield must be tested regularly to ensure that groundwater resources are not polluted and that the groundwater resources are not being depleted. Abstraction of groundwater resources must be in accordance with the WUL conditions (WUL in process);
- Management of manure is essential to ensure that nitrates do not leach into the soil and ultimately groundwater;
- Stormwater channels around the feedlot pens must be established and all stormwater channels must drain towards a lined sedimentation pond where water can evaporate and manure is removed as and when required;
- Stipulations of the Environmental Management Program (EMPr) should be adhered to during the operational phase of the project.

6.2.2 Impact on Biodiversity

Description of the potential impact

During operation, all vegetation would have already been cleared. The aspect which could however have a negative impact on the biodiversity of the site and surrounding area, is the possibility of the spreading of alien invasive plant species. Once a site has been disturbed, it increases the possibility of alien invasive plant species establishing and spreading on site.

From a positive perspective, the establishment of the feedlot will have a positive impact on biodiversity as farmers who are supplying their calves to feedlots, will contribute to improved grassland biodiversity, as there will be reduced pressure on grazing. Grass-living wildlife species are vulnerable in South Africa and applying less pressure on these ecosystems for grazing, would have a positive impact on the grassland biodiversity.

In addition to the above, wetlands are often highly sought after as grazing patches, and are therefore trampled and overgrazed during the summer, but by allowing cattle to concentrate in feedlots, this eases the pressures on wetlands.

Significance of the potential impact

Although it is acknowledged that the project site is located within a Critical Biodiversity Area (CBA) in terms of the North-West Biodiversity Plan (NWBP, 2015), it must be noted that the project area has been used for agricultural practises since 1964. The project area has therefore already been transformed over the past years and therefore the ecological sensitivity of the project site is regarded to be low. The possibility of the spreading of alien invasive plant species are however possible and due to the Magaliesberg Biosphere Protected Area which is located within approximately 1km from the site, the magnitude of the impact is regarded to be medium. The impact can however be mitigated to be of low significance following the implementation of mitigation measures.

As for the indirect positive impact on biodiversity with the operation of the feedlot reducing the pressure on other grassland biodiversity ecosystems and wetland areas, the impact is of medium magnitude, local extent, and long-term duration. For this reason, the impact is assessed to be of medium significance (positive) prior to the implementation of mitigation measures.

Cumulative Impact:

From a cumulative impact perspective it is noted that various activities are currently being undertaken with in the surrounding area. These activities include the proposed abattoir currently within the planning phase, as well as the existing road infrastructure resurfacing of the R104 Provincial Road. These areas have also been previously transformed; however, it is imperative that alien invasive plant species are managed and eradicated on site in order to prevent further spreading throughout the area. The impact is regarded to be of low significance if mitigation measures are implemented.

TABLE 18: IMPACT ON BIODIVERSITY

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Spreading of alien invasive plant species [NEGATIVE]	Medium	Site specific	Long term	Probable	Medium	Low
Impact on grassland biodiversity [POSITIVE]	Medium	Local	Long term	Probable	Medium (+)	Medium (+)
Cumulative Impact						
Spreading of alien invasive plant species [NEGATIVE]	Medium	Site specific	Long term	Probable	Medium	Low

Mitigation Measures

- Vegetation clearance must be restricted to the footprint of the site. No additional vegetation clearance will be allowed outside the 19Ha boundary of the feedlot;
- All alien invasive plant species on site must be eradicated by means of either mechanical or chemical removal.

6.2.3. Air Quality (Odour & Dust)

Description of the potential impact

Air pollution includes dust, methane gas emissions and offensive odours. Dust includes soil and dry manure and is in many cases a combination of the two. Feedlots have especially high concentrations of dust above the pens at dusk, the time when cattle are most active and moving around in the pens. A column of hot air rises from the feedlot floor during the night and forms a horizontal buffer above the feedlot as it cools, which prevents the rising dust from escaping immediately. These dust clouds may give rise to respiratory problems to people in nearby communities. The air pollutants of feedlots are not as toxic as the lead, sulphur dioxide, ozone or carbon monoxide gasses that are normally classified as industrial air pollutants.

Offensive odours, such as hydrogen sulphide, that arises from manure on the floors, is especially evident after rains and in hot weather. The main concern with odour is its ability to cause an effect that could be considered 'objectionable or offensive'. An objectionable or offensive effect can occur either where an odorous compound is present in very low concentrations, usually far less than the concentration that could harm physical health, or when it occurs in high concentrations. Where the offensive odour is caused by high concentrations, contaminants in the odour may also be causing direct health effects such as skin, eye or nose irritation, and these should be considered in addition to any potential odour impacts.

Repeated or prolonged exposure to odour can lead to a high level of annoyance, and the receiver may become particularly sensitive to the presence of the odour.

Significance of the impact

The nearest residences are located approximately 500m to the east and to the west of the feedlot operations. As noted within Section 4.2, the wind mostly blows from the SSW towards the NNE. Some residences are located approximately 600m to the north of the feedlot and therefore there is a possibility that odour and dust from the feedlot could have an impact on the residences down-wind of the operations. As the residences are however further than 500m from the site, therefore the magnitude of the impact would be medium if no mitigation measures are implemented. The impact can however be reduced to be of low significance with the implementation of mitigation measures

Cumulative Impact:

It is acknowledged that Bila Foods also proposing the construction of an abattoir approximately 1km north of the feedlot project site. When the impact of the abattoir is considered with the operation of the feedlot, it is likely that the possibility of bad odour experienced within the area is increased. The two sites are however located 1km from each other and therefore the likelihood of this impact occurring is low. The magnitude of the cumulative impact is however considered to be high and therefore the significance of the impact prior to the implementation of mitigation measures is high. All measures must be taken at the feedlot to ensure the minimisation of bad odours.

TABLE 19: AIR QUALITY (ODOUR AND DUST)

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Odour generated by operational activities [NEGATIVE]	Medium	Local	Long term	Probable	Medium	Low
Dust generated by operational activities [NEGATIVE]	Medium	Local	Long term	Probable	Medium	Low
Cumulative Impact						
Odour and dust generated by considering other agricultural activities within the vicinity of the site [NEGATIVE]	High	Local	Long term	Probable	High	Low

Mitigation measures

- Holding pens must be kept in a clean state. Manure must be removed from the pens/camps (interface layer) on a continuous basis.
- The period of storage of manure must be minimised to prevent the accumulation of large quantities of manure which could increase the possibility of odours emanating from the site.
- Very few substances are of any use in containing the odours from lagoons, but the application of chlorine does help for a few days. A number of cattle feedlots in South Africa use the additive Rumensin in their feed, since it reduces some methane gas emission (a volatile greenhouse gas) and at the same time enhances the growth rate of cattle.
- In order to reduce air pollution the floor should be kept moist, at about 30% to 40% humidity, by regular sprinkling with water

6.2.4 Waste Generation, Storage and Disposal

Description of the potential impact

The different sources of waste in feedlots that can impact the environment includes the following waste:

- **Domestic Waste**

During the operational phase, domestic waste is generated by staff employed by the feedlot. It is noted that the project area is not being serviced by the local municipality and therefore it is imperative that waste be temporarily stored and removed from site to a registered land fill site. Effective management of domestic waste is therefore required to ensure that the impact on the environment is minimised.

- **Liquid Effluent**

Typical liquid effluent produced by feedlots includes run-off from feedlot pens, manure storage areas and sedimentation and sludge collection zones. The by-products from effluent from the runoff will be evaporated while the sludge will be removed as and when required. Currently, the exact volume of effluent to be diverted to the sedimentation pond is not known. However, it is anticipated that the daily throughput capacity will be much less than 2000 cubic meters thus not triggering an additional environmental authorisation.

- **Animal holding pens/Manure**

Large amounts of manure are generated daily at feedlots, which are not only of environmental concern due to methane emission but also present a significant health risk if it is not adequately managed. Manure and urine in holding pens must be cleaned regularly and stored temporarily within the manure storage area (covered, impermeable surface). It is proposed that manure is collected from a third-party contractor, to be used as a by-product (composting).

- **Dead animal carcasses.**

With the operation of the feedlot, it is expected that there might be disease-related or accidental deaths of stock. Dead animal carcasses are proposed to be transported off-site to a permitted facility for rendering. To minimise odour generated from the feedlot, no dead animal will be buried on site.

Improper temporary storage and disposal of such biological material can result to the increase in the fly populations, groundwater contamination, as well as bad odours emanating from site.

Significance of the impact

Improper storage and disposal waste and wastewater will have a significant impact on the surrounding environment as it could have the following impacts:

- Increase the health risk.
- Contaminate ground water resources; and
- Cause landfill airspace shortages

Domestic waste and manure are proposed to be temporarily stored on site until it can be removed for disposal and/or re-use. All stormwater/effluent from the holding camps, accumulating in the sedimentation ponds must be managed to ensure that water is evaporated and remaining sludge is removed from site.

Should waste and wastewater not be stored, handled or removed from site effectively, the magnitude of the impact would be high as the impact would severely alter natural or social processes. The impact is of local extent and long-term duration and therefore the impact is assessed to be of high

significance prior to the implementation of mitigation measures. Following the implementation of mitigation measures, the impact can be reduced to be of medium significance.

Cumulative Impact:

It is acknowledged that Bila Foods is also proposing the construction of an abattoir approximately 1km north of the feedlot project site. The abattoir is proposed with a slaughtering capacity of 200 cattle and 200 sheep on a rotational basis. Various wastes will be generated at the abattoir and such waste will have to be managed in accordance with the Draft Environmental Management Plan drafted specifically for the abattoir. Taking into consideration the waste to be generated on site for the feedlot in addition to the manure and waste to be generated for the abattoir, it is noted that the cumulative impact of the waste generation is of high magnitude. The impact is also considered to be of local extent and long-term duration and therefore regarded to of high significance prior to the implementation of mitigation measures.

TABLE 20: WASTE GENERATION, STORAGE AND MANAGEMENT

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Waste generated during operational activities [NEGATIVE]	High	Local	Long term	Probable	High	Medium
Cumulative Impact						
Waste generated during operational activities [NEGATIVE]	High	Local	Long term	Probable	High	Medium

Mitigation measures

- Waste management improvement must include minimisation of waste generated at the source, including maximising the recovery of useful materials;
- Holding camps must be cleaned regularly and manure must be stored temporarily until it can be removed from site;
- General waste generated at the abattoir must be transported and disposed of at a licensed municipal waste disposal site.

6.2.5 Health and Safety

Description of the potential impact

Health and safety at feedlots involve a number of practices to prevent disease and contamination. Such practices include:

- Vaccinations: Veterinarian recommendations for vaccinating cattle against common diseases must be followed;
- Feed: A balanced feed ration and vitamin shots are required for cattle when they enter the feedlot;
- Cleaning: Regular cleaning of pens to reduce the risk of spreading diseases;
- Waste disposal: Ensure that all waste is managed and disposed of in accordance with national and local regulations.

Cattle feedlots can become the focal points of communicable diseases, such as foot and mouth disease (FMD) and anthrax, since there is an active inflow and outflow of cattle or vectors that may spread pathogens. A feedlot with approximately 2400 cattle, could experience 4 or more disease related or accidental deaths in the lot per month. In terms of the Meat Safety Act of 2000, this meat may not be presented to an abattoir for slaughter or provided for human or animal consumption. Such cattle will have to be transported to the Bila Foods Abattoir and be transported from site, together with other condemned products.

To ensure the health and safety of livestock, young livestock are inspected and processed on arrival. Each livestock unit receives vaccinations, as well as spray-on treatments for ectoparasites. Due to the difficulty of removing all the medicine from a bottle during processing, about 1.5% of the original content usually remains in the bottle. This means that a large volume of substances is wasted annually, and these could be deposited on uncontrolled dumping sites close to feedlots. For this reason, medicinal waste must be stored separately from other domestic wastes and must be removed from the site by a third-party contractor, licensed to remove, transport and dispose of such waste. From a positive perspective, feedlots are constantly under scrutiny by environmental auditors and governmental agencies for proper disposal of wastes aspects which could affect the health and safety of livestock and surrounding environment. For this reason, there is a higher possibility that feedlots will undertake activities in accordance with national, regional and local regulations than what could be expected from independent farmers.

Another aspect which must be considered is the increase in the possibility of livestock theft. Measures must therefore be taken to ensure that livestock is safeguarded.

Significance of the impact

If the Bila Foods feedlot is not undertaking any measures to ensure the health and safety of the livestock as well as the surrounding landowners and land users, the impact of health and safety could result to a notable change in the natural or social functions. For this reason, the magnitude of the impact is regarded to be medium. The impact is of local extent and long-term duration and therefore the impact is rated to be of medium significance prior to the implementation of mitigation measures.

Cumulatively, the proposed abattoir and operational aspects thereof, having an impact on the health and safety of animals and surrounding landowners / users, must also be considered. When considering feedlots, a number of aspects must be considered to ensure the health and safety of livestock and surrounding landowners/users. The operation of an abattoir within 1km from the feedlot site, will add to more health and safety aspects to be considered. The magnitude of the impact is however still medium, with a local extent and long-term duration, and therefore the impact is rated to be of medium significance prior to the implementation of mitigation measures.

TABLE 21: HEALTH AND SAFETY

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Health and Safety [NEGATIVE]	Medium	Local	Long term	Probable	Medium	Low
Cumulative Impact						
Health and Safety [NEGATIVE]	Medium	Local	Long term	Probable	Medium	Low

Mitigation measures

- The feedlot must be fenced and security must be provided;
- All conditions included with the Meat Safety Act (Act 40 of 2000), Red Meat Regulations, No. 1072, 2004 as well as the Animal Diseases Act of 1984, must be adhered to ensure the health and safety of meat products;
- It must be ensured that all livestock undergoes an inspection by the veterinarian upon arrival and all vaccinations are given as required;
- Feedlot and pens must be cleaned regularly and manure must only be stored temporarily and then be removed from site for further use (such as fertiliser).

6.2.6 Traffic Impact

Description of the potential impact

During the operation of the feedlot, increase in traffic volume from the transportation of livestock, can be expected. Access to the site is available by making use of the R104 Provincial Road and then following an unnamed gravel road for approximately 1.2km. The gravel road is currently in a good condition; however, the condition could deteriorate with excessive use and therefore it is the applicant’s responsibility to ensure the gravel road is maintained.

The R104 Provincial Road is currently in a derelict state and additional use by loading trucks could further add to the deterioration of the road. It is however noted that the road is currently being resurfaced by the Provincial Department and it will remain the responsibility of the Provincial Authority to ensure that the road is maintained.

Significance of the impacts

The increase in traffic volumes due to the transportation of livestock, can lead to some disruptions on local roads when considering the current condition of the R104 Provincial Road. As soon as the

provincial road has been resurfaced, it is not expected that there would be any significant, noticeable impact on the traffic flow. For this reason, the impact is regarded to be of low significance.

Cumulatively, it is noted that there are various mining and agricultural activities being undertaken within the surrounding area and in order to avoid tollgates, numerous heavy moving vehicles are travelling along the R104. The addition of the trucks transporting livestock to and from the feedlot, will have a noticeable change on the traffic on the R104 and therefore the impact is of medium magnitude. The impact is also regarded to be of local extent and long-term duration and therefore the cumulative impact is assessed to be of medium significance prior to the implementation of mitigation measures.

For this reason, the impact has been assessed to be of medium magnitude prior to the implementation of mitigation measures.

TABLE 22: TRAFFIC IMPACT

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Traffic [NEGATIVE]	Low	Local	Long term	Probable	Low	Very Low
Cumulative Impact						
Traffic [NEGATIVE]	Medium	Local	Medium term	Probable	Medium	Low

Mitigation measures

- Traffic management plan must be drafted;
- Regular maintenance of gravel road to be undertaken;
- Road maintenance and repair to be undertaken by the DPWRT (it is noted that refurbishment of R104 infrastructure have commenced)
- Safety measures must be implemented.

6.2.7 Pests

Description of the potential impact

The operation of the proposed project may result in a rise in pest populations, especially if waste management and sanitation are inadequately handled. The housing of cattle and/or sheep will increase the population of flies within the immediate area.

The accumulation of animal waste and organic materials from the feedlot could also attract pests such as rodents and other insects. These pests could transmit diseases, contaminate food, and pose health and safety risks to employees and surrounding communities.

It is noted that some agricultural activities (crop production) are being undertaken adjacent to the proposed project site. An increase in fly populations could cause damage to crop both directly and indirectly. The type of damage depends on the species of flies. Direct damage could be caused by flies laying eggs in plant material, especially ripe and maturing fruit. This would result to larvae feeding on root hairs as well as tender roots, leaf tissue and fruits.

Significance of the impacts

The impacts associated with the rise in pest populations during feedlot operations, is of high magnitude due to the risk of disease spread and food contamination. Without mitigation, pest infestations are probable and pose health risks to workers and nearby communities and farming operations. However, with effective waste management and pest control measures, especially fly management, the impact can be reduced to be of low significance.

Cumulative Impact:

It is noted that Bila Foods is also proposing to commence with an abattoir approximately 1km north of the feedlot project site. The accumulation of cattle, and especially the number of cattle proposed for the feedlot, could add to the possibility of fly infestation within the surrounding area. Cumulatively, the impact is therefore regarded to also be of high magnitude. However, as the cumulative impact is being considered, the impact is of local extent and long-term duration. For this reason, the cumulative impact is regarded to be high without the implementation of mitigation measures.

TABLE 23: PESTS

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Pests [NEGATIVE]	High	Local	Long-term	Probable	High	Medium
Cumulative Impact						
Pests [NEGATIVE]	High	Local	Long-term	Probable	High	Medium

Mitigation measures

- It is imperative for Waste Management Plan to be compiled and implemented on site;
- The fly management programme included within the EMP must be adhered to.

6.2.8 Socio-economic Impact

Description of the potential impact

The proposed project is expected to have a significant positive socio-economic impact on the surrounding community as well as regionally with the provision in the demand for meat products. Beef consumers in South Africa are increasing in number and appetite, and their demands for young tender beef can only be accommodated with feedlots. Within the local community, permanent job opportunities will be created, thereby reducing unemployment and improving the livelihoods of employees and their dependents.

In addition to the above, the project will also contribute to the development of skills through employee training, improving long-term employability and expertise within the community.

Significance of the impacts

Based on the methodology detailed in **Section 6**, the following ratings have been assigned to the positive socio-economic impact associated with the abattoir.

It is also noted that the cumulative impact is regarded to be positive and of high significance when other surrounding projects are considered, such as the feedlot operation located near the proposed abattoir site.

TABLE 24: SOCIO-ECONOMIC IMPACT

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Socio-Economic Impact [POSITIVE]	High	Local	Long term	Definite	Neutral	High (+)
Cumulative Impact						
Socio-Economic Impact [POSITIVE]	High	Local	Long term	Definite	Neutral	High (+)

Mitigation measures

The feedlot must ensure that local residents receive preference for job opportunities to be created by the abattoir.

6.3 Environmental Impact Statement

The table below summarises the impacts identified and assessed for the operational phases of the project:

TABLE 25: ENVIRONMENTAL IMPACT STATEMENT

IMPACT	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES
	CUMULATIVE IMPACT			
Construction phase impacts				
Erosion	Low	Very Low		N/A
Soil contamination	Low	Very Low		N/A
Clearance of additional vegetation	Medium	Low		N/A
Spreading Alien Invasive Plant Species	Low	Very Low		N/A
Dust generation	Low	Very Low		N/A
Noise generation	Low	Very Low		N/A
Waste generation	Low	Very Low		N/A
Traffic impact	Medium	Low		N/A
Health and Safety	Low	Very Low		N/A
Socio-economic Impact	Neutral	Medium (+)		N/A
Operational phase impact				
Impact on water availability	High	Low	High	Low
Ground- and surfacewater pollution	High	Low	Medium	Low
Spreading of alien invasive plant species	Medium	Low	Medium	Low

Positive impact on grassland biodiversity	Medium (+)	Medium (+)	Medium (+)	Medium (+)
Odour	Medium	Low	High	Low
Dust generation	Medium	Low	High	Low
Waste generation	High	Medium	High	Medium
Health and Safety	Medium	Low	Medium	Low
Traffic	Low	Very Low	Medium	Low
Pests	High	Medium	High	Medium
Socio-Economic impact	Neutral	High (+)	Neutral	High (+)

7 CONCLUSION AND WAY FORWARD

7.1 Assumptions and Limitations

In undertaking this investigation and compiling the Section 24G Report, the following has been assumed:

- The information provided by the proponent is accurate and unbiased, and that no information that could change the outcome of the Environmental Authorisation process has been withheld.
- The scope of this investigation is limited to assessing the environmental impacts associated with the remainder of the construction activities and operational phases of the project.
- The conclusion and recommendations proposed are based solely on the information, scope of works as agreed with the proponent.

7.2 Conclusion

The essence of all environmental assessment processes is aimed at ensuring informed decision-making and environmental accountability. Furthermore, it assists in achieving environmentally sound and sustainable development. The impact assessment for this project has been undertaken in line with the requirements prescribed in the NEMA regulations.

The assessment of the possible impacts associated with the establishment and operational activities, concluded that the impact on the surrounding environment is of high to medium significance prior to the implementation of mitigation measures. Recommendations have however been made to address the impacts which could affect the biophysical and socio-economic environment and when such recommendations are implemented, it is believed that the impacts associated with the operational activities, would be reduced to be of medium to low significance. Recommendations for the mitigation of impacts are included within Section 6 and the Draft Environmental Management Plan attached. The significance of the potential environmental (biophysical and social) impacts associated with the proposed project are discussed in detail under **Section 6**.

It is the opinion of the EAP that the EA for this project should be granted, and the proposed mitigation included as the conditions of the authorisation.

7.3 Way Forward

The next steps of the Section 24G process will be to distribute the Draft Section 24G Report and make it available to the public (including the registered I&APs) for 30 days to comment, during which the competent authority will also provide comments on the report. After the 30-day comment period, all comments will be addressed by the EAP and incorporated within the Final Section 24G Report to be submitted to the DEDECT for decision making. All registered I&APs will be notified of the decision and will be given an opportunity to appeal as per the NEMA requirements.

8 REFERENCES

National Environmental Management Act 107 of 1998 (NEMA 107, 1998)

General Notice Regulation 326, 324, 325 and 326 of 2017

National Water Act 36, of 1998

Northwest Biodiversity Conservation Plan (NW BSP), 2014

Annual Report 2014 – Council for Geoscience

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Meat Safety Act (Act 40 of 2000)

Red Meat Regulations, No. 1072, 2004

Animal Diseases Act of 1984

Environmental Guidelines for Beef Cattle Feedlots

Ecological Assessment for the Bila Foods Feedlot, The Riverguy, 2024

Heritage Impact Assessment for Bila Foods Feedlot, Adansonia Heritage Consultants, 2024

Geohydrological Investigation for Bila Foods Feedlot, Geowave Consulting, 2024