

Draft Basic Assessment Report

August 2026

**Development of Agricultural
Facilities on the Farm
Twyfelfontein 1058, Mantsopa
Local Municipality, Free State.**



GREEN-BOX
CONSULTING

BASIC ASSESSMENT REPORT



destea

department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

(For official use only)

File Reference Number:

Application Number:

Date Received:

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

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 as amended and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **09 August 2022**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent and **EAPASA registered** environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

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

NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

Green-Box Consulting is appointed by Khora Farm Enterprise to commence with the environmental assessment and authorisation process for the Proposed Pig & Poultry Abattoir, Piggery, Poultry Layer houses and Poultry Broiler Facility on the Farm Twyfelfontein 1058, Mantsopa Local Municipality, Free State

Site midpoint co-ordinates are 29°22'33.41"S; 27°19'0.22"E.

The assessment area is situated on Portion 1 of the Farm Twyfelfontein No. 1058 (SG 21 Digit Code: F02100000000105800001), approximately 23 km south-west of the town of Ladybrand, Free State Province. The town forms part of the Mantsopa Local Municipality which in turn, forms part of the Thabo Mofutsanyana District. The assessment area falls outside the municipal urban edge. Access to the assessment area is obtained by way of the R26 provincial road and subsequent dirt roads, from the west.

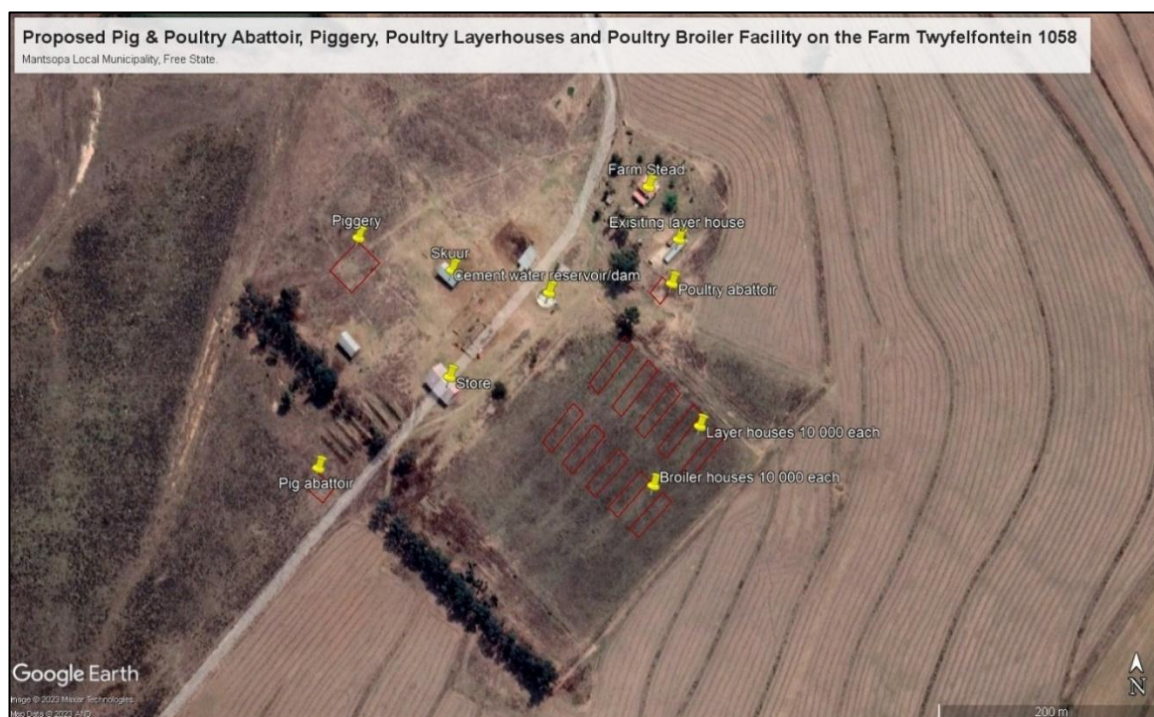
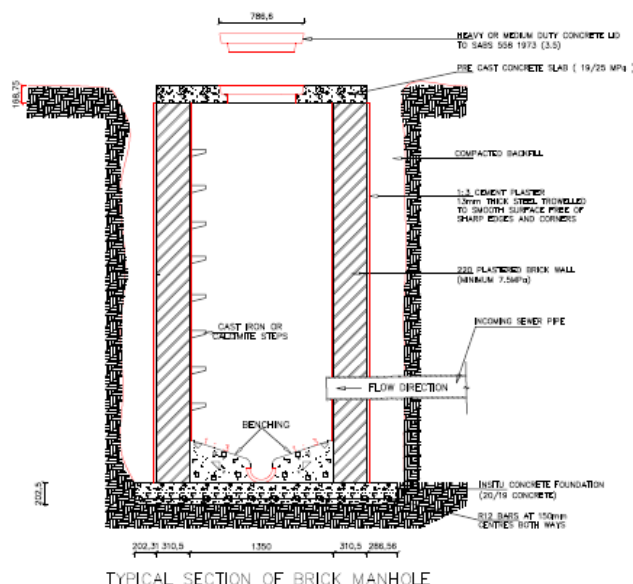


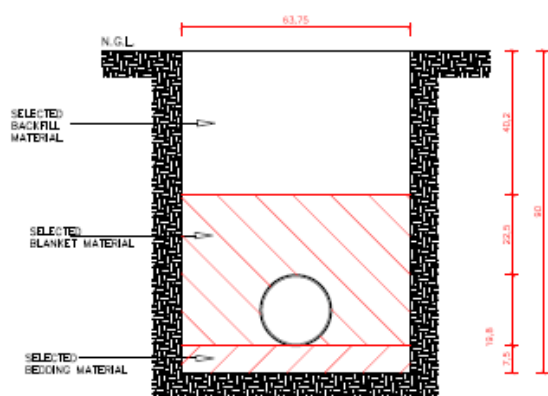
Figure 1: Site Map (Google Earth Pro, 2023)

The proposed development includes:

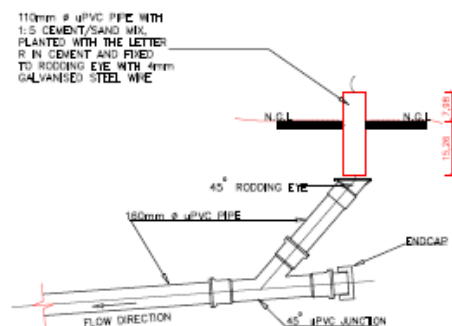
- 🌱 Construction and operation of five x layer houses consisting of 10 000 chickens per unit
- 🌱 Construction and operation of five x broiler houses consisting of 10 000 chickens per unit
- 🌱 Construction and operation of a low throughput pig abattoir (for own pigs)
- 🌱 Construction and operation of a poultry abattoir (10 000 poultry per week, bi-weekly)
- 🌱 Construction and operation of a piggery consisting of 50 sows



TYPICAL SECTION OF BRICK MANHOLE



TYPICAL SECTION: TRENCH EXCAVATION/BACKFILL



TYPICAL RODDING EYE

This system will be installed at each facility and designed to accommodate each unit's effluent waste stream.

Office block, Foreman House, Feed Store and Fencing:

The entire operational area is enclosed and fenced. The physical footprint of the different facilities and operational area is clustered and centralised in-between the farm stead existing buildings and facilities. The existing fam house will serve as the foreman's house and office block.

Other existing facilities and structures include:

- 2 x Sheds;
- Water cement reservoir;
- Three boreholes;
- 1 x existing poultry layer house.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN 327,325 and 324	Description of project activity
Regulation GN 327 Listing Notice 1, Activity 3(i)(ii): The development and related operation of facilities or infrastructure for the slaughter of animals with a - (i) product throughput of poultry exceeding 50 poultry per day; (ii) product throughput of reptiles, game and red meat exceeding 6 units per day	The development proposal will include the establishment of a poultry abattoir as well as a pig abattoir. The Poultry abattoir will be designed for 10 000 poultry bi-weekly. The pig abattoir is proposed to slaughter the farms own pigs (not for commercial purposes) and is designed as a low throughput abattoir, to manage 10 pigs per day.
Regulation GN 327 Listing Notice 1, Activity 5: The development and related operation of facilities or infrastructure for the concentration of— (ii) more than 5 000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days; (iv) more than 25 000 chicks younger than 20 days per facility situated outside an urban area.	The development proposal will also include the establishment of 5 x layer houses consisting of 10 000 chickens per unit. Construction and operation of 5 x broiler houses consisting of 10 000 chickens per unit.
Regulation GN 327 Listing Notice 1, Activity 4iib: The development and related operation of facilities or infrastructure for the concentration of animals in densities that exceed— (ii) 8 square meters per small stock unit and; b. more than 250 pigs per facility excluding piglets that are not yet weaned.	The development proposal will also include the development of a piggery to accommodate 50 breeding sows.

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

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

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Describe alternatives that are considered in this application as required by Appendix 1 (3)(h) of GN 326, Regulation 2014 as amended. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The facilities will include a Pig & Poultry Abattoir, Piggery, Poultry Layer houses and Poultry Broiler Facilities on the Farm Twyfelfontein 1058, Mantsopa Local Municipality, Free State. The different facilities will be housed within an existing farm portion of approximately 10ha. The current site landuse is agriculture, and characterised with existing and old cultivation lands.	29°22'33.41"S;	27°19'0.22"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
None considered, the applicants own the farm and operates within a centralised area where existing structures, water provision and farmstead exist. For this reason, no other feasible site option is available.		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
None considered		

In the case of linear activities:

Alternative:

Alternative S1 (preferred)

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

Latitude (S):

Longitude (E):

N/A	

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Alternative S2 (if any)

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

Alternative S3 (if any)

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

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

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A of this form.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The proposed development includes: ✱ Construction and operation of five, layer houses consisting of 10 000 chickens per house ✱ Construction and operation of five broiler houses consisting of 10 000 chickens per house ✱ Construction and operation of a pig abattoir (10 units per day) ✱ Construction and operation of a poultry abattoir (10 000 poultry per week, bi-weekly) ✱ Construction and operation of a piggery consisting of 50 sows. The placement of these facilities is based on bio-security principles and is spaced within the existing farm infrastructure. (see figure 1)  <i>Figure 1: Agriculture facilities layout plan</i>	29°22'33.41"S;	27°19'0.22"E

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Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
None considered, the layout preferred is based on bio-security measures and location within existing infrastructure.		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
None considered		

c) Technology alternatives

Alternative 1 (preferred alternative)
The use of modern broiler unit construction methods will be encouraged throughout the construction phase, the use of materials which is environment friendly will also be considered.
Use of highly durable material for part of the building that is unlikely to be changed during the life of the buildings (unlikely to change due to, e.g. renovation, fashion, change in family life cycle) is highly recommended.
The use of energy efficient features within and outside of the agriculture facilities will be promoted.
Alternative 2
Not applicable
Alternative 3
Not applicable

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)
No other alternatives considered.
Alternative 2
Not applicable
Alternative 3
Not applicable

e) No-go alternative

This alternative is the 'no-development alternative'. The no-development option will result in the status quo being maintained. At present the existing facilities are not fully utilised; to make the agricultural operations on the farm economically viable the expansion and introduction of a diversifying agricultural operation is required. Should the 'no development' alternative be considered by the competent authority, an opportunity to expand operations on the farm would be lost. This will inevitably result in financial losses to the client if farming diversification is not introduced to assist in making the farm economically viable. Approximately 15 skilled/unskilled working opportunities will be created by the project. The project will furthermore (results of this assessment) not compromise any environmental integrity and sustainability of the immediate development area. The facilities proposed will be within the existing farming operations. Therefore, in order to accommodate the aim of making the farm a viable operation, the no go alternative is not preferred.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1¹ (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

Broilers - 400m ² x 5;
Layers - 400m ² x 5;
Poultry abattoir -200m ²
Pig abattoir - 200m ²
Piggery - 1 000m ²
TOTAL – 5 400m²
m ²
m ²

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:

	m
	m
	m

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

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

	m ²
	m ²
	m ²

4. SITE ACCESS

Does ready access to the site exist?

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

YES	NO
	m

Describe the type of access road planned:

Access to the farm facilities is existing, two access is available. These are gravel roads. Main access to these gravel road entry points is from the R26 provincial road.

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

¹ "Alternative A.." refer to activity, process, technology or other alternatives.

5. LOCALITY MAP

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

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

6. LAYOUT/ROUTE PLAN

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

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS

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

9. FACILITY ILLUSTRATION

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

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES	NO	Please explain
Yes, the property (farm) is zoned as agriculture.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
The affected area is currently part of agricultural zoned land. The activity proposed is in line with this agricultural land use.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The proposed development falls outside of the Ladybrand urban edge.			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
The activities proposed compliments the IDP as well as the SDF of the local municipality.			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
Structure plans not applicable.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
The proposed area falls within an agricultural land use area, there are no EMF developed for the project site area.			

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(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
No other plans applicable.			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The proposed development will increase job opportunities during the operation phase of the site. There will also be job opportunities (approximately 20 employment opportunities locally) created during the construction phase of the project for a short period of time.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
Agriculture is prominent in the area has the potential to expand the economy of the local municipality. The local community will be positively affected by the project through skill development and job creation.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
The broiler unit development will connect to for electricity. Groundwater via borehole extraction will also be used. It must however be noted that chickens only drink around 110ml water a day, so the facility will not use a large amount of water during its operations.			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
Area falls within the agricultural zone. Infrastructure to be used will be limited to roads which can adequately accommodate the vehicles from the broiler units traveling on them.			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
No, however small-scale job creation and skill development will however be realized.			

8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES	NO	Please explain
Yes. The proposed site is already transformed due to prior agricultural activity. There is no close neighbouring operation that would be affected, and the environmental integrity should not be significantly altered due to the existing cultivated land.			
9. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
Yes. The proposed site is already transformed due to prior agricultural activity. There is no close neighbouring operation that would be affected, and the environmental integrity should not be significantly altered due to the existing cultivated land.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain
The development will occur on an already transformed land, therefore there will be no further disturbance to vegetation and the development will not negatively impact the environmental integrity. Job opportunities and skill development will be created in the area as well as a supply of meat product to the local community.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
No precedent will be set by this development.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
It is not foreseen that the rights of any person will be negatively affected. Through proper public participation stakeholders will have the chance to comment on the development and voice their opinions.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
The proposed development will take place on existing agricultural land outside of the Ladybrand urban edge.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain
The project is on too small scale to contribute to any of the SIPS.			
15. What will the benefits be to society in general and to the local communities?	Please explain		
The primary benefit will be the production of produce that will be sold to the market, also secondary skill development and job creation through the abattoir operations which will empower individuals that were previously disadvantaged to unemployment.			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
The high unemployment rate in the local municipality will be lowered.			
17. How does the project fit into the National Development Plan for 2030?	Please explain		
The proposed abattoir facility and associated infrastructure will contribute to job creation, skills will be passed on through formal and informal training, and previously disadvantaged individuals from around the area will be positively impacted by this activity.			

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

According to Section 23 of NEMA, 1998, the following should be considered:

EIA process for listed activities should be followed

An application for environmental authorisation was submitted to DESTEA.

Baseline assessment was undertaken.

Compilation of a Draft Basic Assessment Report which includes the potential impacts identified during the assessments.

Submission of draft reports to the respective competent authorities for perusal.

Compilation of an EMPr

An EMPr containing management measures to be implemented to limit environmental impacts are attached hereto.

All possible interested and / or affected parties were notified of the proposed project by means of letters, advertisement, and site notices.

I&APs are given the opportunity to register and comment on the Draft BAR.

Need in terms of socio-economic level

The need in terms of the socio-economic level was assessed.

The proposed expansion development has been adequately considered by a trained and competent Environmental Assessment Practitioner, and all potential impacts that may have a significant impact on the receiving environment have been considered and mitigated to acceptable levels as required by the NEMA 2014 EIA- as amended regulations. The conclusions of the environmental impact assessment have been concisely summarised to adequately inform decision-making by the competent authority. A comprehensive Public Participation Process was also undertaken, which conformed to requirements in Chapter 6 of the Environmental Impact Assessment Regulations. Further all Interested and Affected Parties were given ample time to review and comment on all documents and reports.

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

An application for environmental authorisation was submitted to DESTEA

The results obtained from baseline assessments were used to assess the possible impacts (positive and negative) on an environmental as well as social level. The Draft BAR was made available to the relevant sector departments and the public for their respective comments.

Compilation of an EMPr

An EMPr containing management measures to be implemented on site was compiled by taking the possible impacts that the proposed project may have on the environment, into consideration.

Public participation process undertaken

Adjacent landowners to the proposed site will be notified of the proposed project by means of formal notices either delivered by hand / e-mail / postage. In addition, site notices were placed, and a notification was published in a local newspaper. The local municipality was also notified of the proposed project. I&APs are given the opportunity to register and comment on the Draft BAR.

Need in terms of socio-economic level

The proposed project will provide employment opportunities for a number of people from the local community during the construction and operational phases.

The principles of environmental management as set out in Section 2 of NEMA have been taken into account through the following means:

- There will be no loss of endangered or protected biological diversity;
- Pollution will be minimised; and
- This activity will reduce the exploitation of non-renewable resources.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act, 1998 (Act No. 107 of 1998)	2014 NEMA Regulations applicable, broiler units listed in terms of the Regulations. NEMA principles will apply as well as Section 28(1), Duty of Care.	National Department of Environmental Affairs and Tourism	November 1998
Agricultural Products Standards Act, 119 of 1990	Provide control over the sale of certain agricultural products.	Department of Agriculture	1990
National Environmental Management: Waste Management Act 59 of 2008	The Waste Management Act regulated waste generated from operations such broiler unit operation.	Department of Environmental Affairs	2008
National Water Act 36 of 1998	All water use is regulated by this Act; as such the broiler unit's	DWAF	1998

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	operation will use water both during the construction and operational phases. Water must be registered with Department of Water Affairs.		
Conservation of Agricultural Resources Act 43 of 1983	The proposed broiler unit's operation is to be constructed on agricultural land. The footprint is however small.	Department of Agriculture	1983
National Health Act, (Act 61 of 2003)	Overall legislation regulating human health, i.t.o. the proposed broiler unit's operation these will apply to all staff (workers).	Department of Health	2003
Occupational Health and Safety Act (Act 85 of 1993)	Regulations applicable both during construction and operation of the proposal.	Department of Labour	1993

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

YES

NO

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

5m³

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

Construction waste volumes will be very low. Waste will be collected by an independent waste removal service provider and will be taken to the Ladybrand landfill site. Registered landfill site: B33/2/420/8/P110 (Class 2)

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

Waste will be collected by an independent waste removal service provider and will be taken to the Ladybrand landfill site. Registered landfill site: B33/2/420/8/P110 (Class 2)

Will the activity produce solid waste during its operational phase?

YES

NO

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

m³

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

Other than domestic waste, solid waste will also include chicken manure, piggery waste and waste streams emanating from the abattoirs. This waste will be removed from the broiler units every 2 weeks and placed in manure wind rows east of the new planned broiler units. After the manure (which is high in moisture contents) is dry, waste will be used for farming by the project proponent. Chicken manure fertilizer is very high in nitrogen and also contains a good amount of potassium and phosphorus. Waste streams from the piggery and abattoirs will be managed through a septic tank system, described below under liquid waste management.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

N/A

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

Manure solids will be re-used on the farm, the farm is an active cultivated farm.

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

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?

YES	NO
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If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

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

YES	NO
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If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO
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If YES, what estimated quantity will be produced per month?

m³

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
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If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO
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If YES, provide the particulars of the facility:

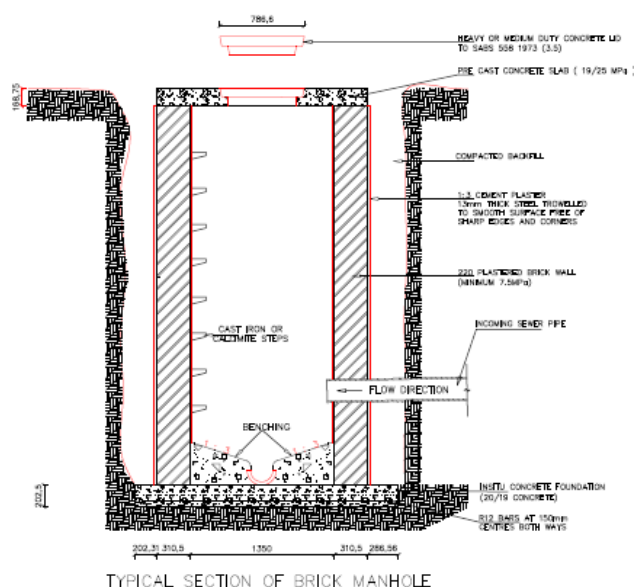
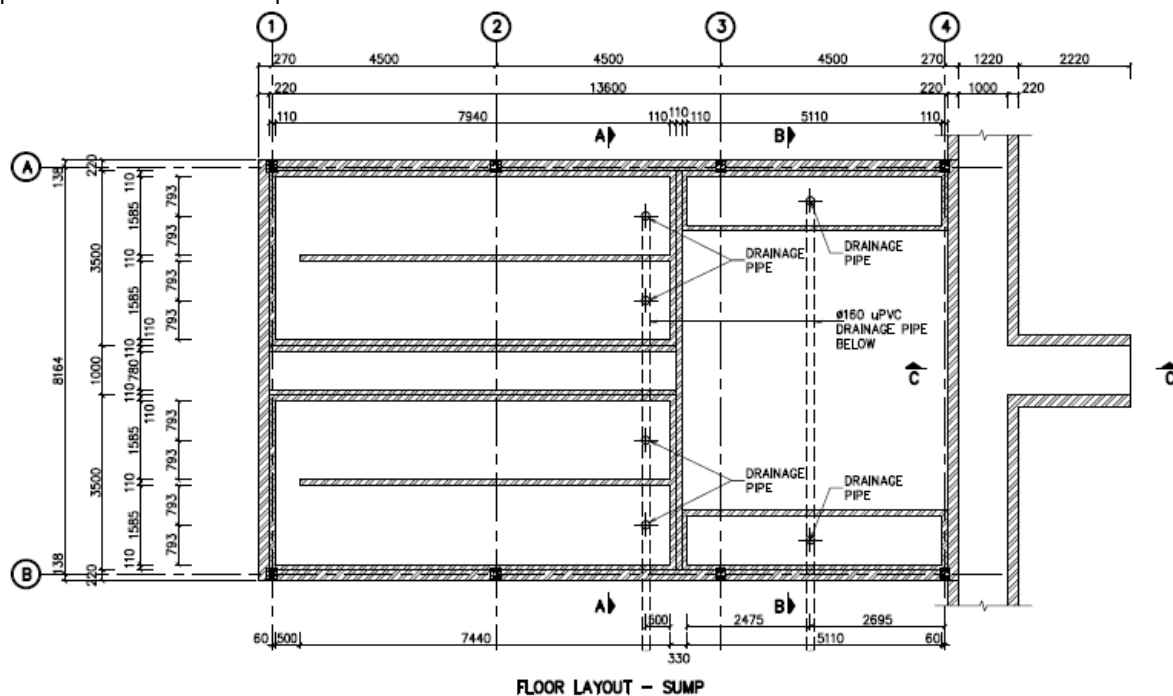
Facility name:	N/A		
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

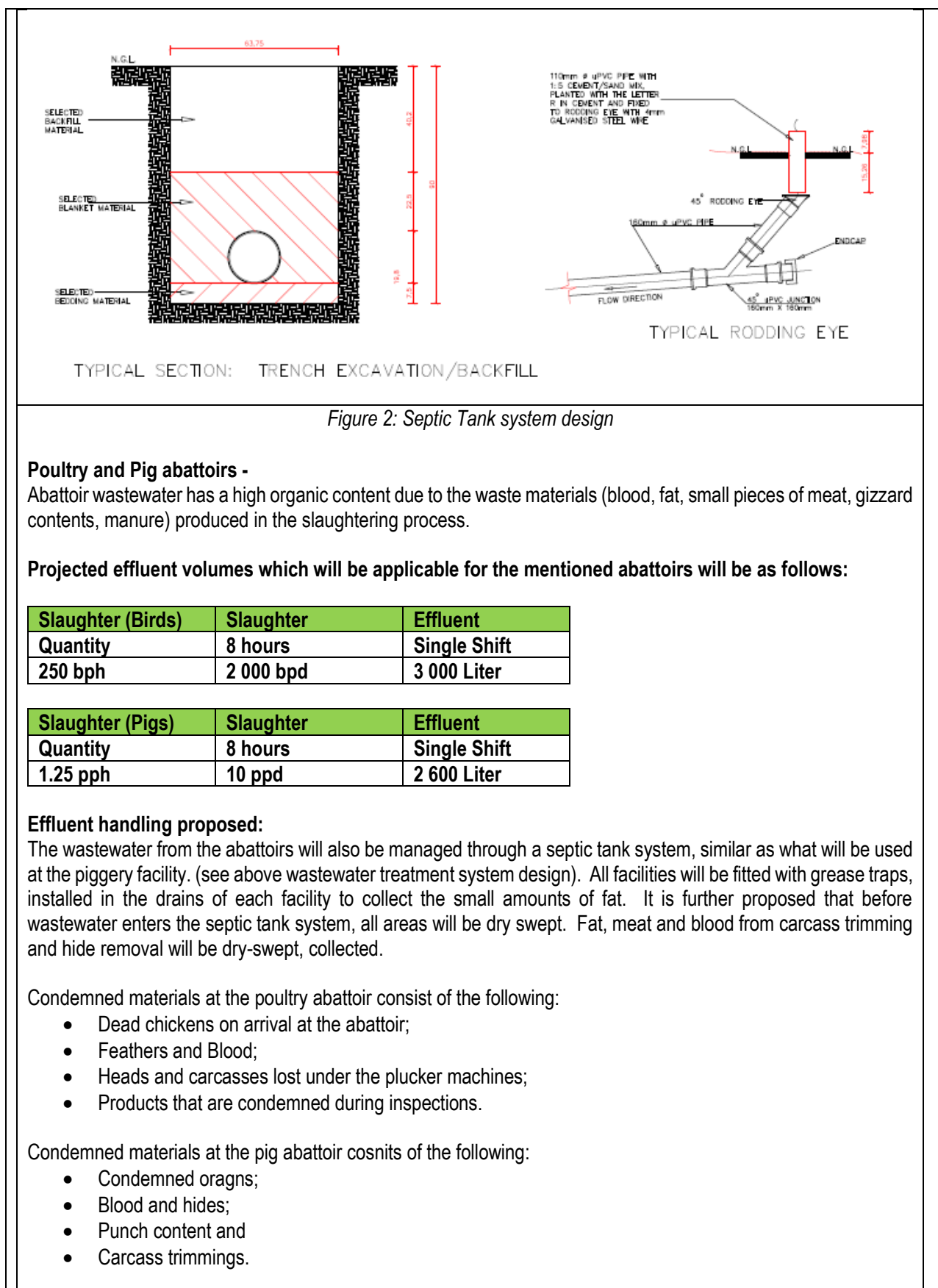
Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Septic Tank System

Piggery –

It is estimated, based on known norms, that the pigs will produce 2 tons of effluent per day. The effluent is a mixture of dung, urine and wash water. According to the layout plan, a septic tank system is proposed for the project. The septic tank system will pass through three stages of treatment. All solid and liquid waste will pass to the first tank where solids will start to settle to the bottom while liquid waste will pass to the second tank. In the second tank, any solid remains will settle at the bottom while only liquid waste will pass to the third tank. Liquid water from the third tank will be disinfected and will be used in the cleaning of pens and also for irrigation purposes. All solid waste will be pumped and sold to the local market in order to produce fertilisers. All pens will be fitted with drainage pipelines that feed to the septic tank.





All condemned materials will be placed in designated bins and are sealed. The following procedures apply to each class of condemned material:

DOAs

DOAs will be disposed of in one of two ways. In the first, the DOAs are shredded into pieces and stored in bins destined to be sold to re-use markets. In the second method, DOAs are placed in locked bins in a refrigeration container at the waste collection area. Here the temperature is kept at 0°C and carcasses are placed inside crates to allow for adequate air circulation between the carcasses. The carcasses are then collected by a contracted service provider to be sold for re-use markets or to be destructed.

Feathers

Feathers from the first two pluckers are collected and conveyed to a feather press outside the department. Dried feathers are collected in containers placed underneath the feather press. Feathers from the third and fourth pluckers are washed away in the drain underneath the plucker machines, using recycled water. The feathers accumulate in the feather sump and are then pumped through a screen. The feathers are collected in dedicated containers at the condemned material collection point prior to be placed in sealed containers to be sold to re-use markets.

Blood

From the culling area, blood is pumped from the blood tunnel to a blood collection tank. The tank is emptied daily and the blood placed in sealed containers to be sold to re-use markets.

Soil and faecal matter

Soil and faecal matter from the live bird trucks is swept together by the designated truck cleaner and collected in a wheel barrow. The wheelbarrow will then be emptied into collection containers from where it will either be spread directly on land or sold as material for compost manufacturing.

Products that are condemned during inspections

Carcasses removed by a qualified meat examiner at the first meat inspection point are placed in dedicated bins marked "Condemned material". The bin is removed by the meat inspector to determine if any disease or condition is present. The material is then either taken to the carcass shredder or the refrigeration container at the waste collection area.

Carcasses, portions or organs removed by the meat inspector at the second inspection point are collected in dedicated bins. The meat is inspected to determine if any disease or condition is present. The condemned material is placed in the carcass shredder. Shredding facilitates the pumping of the condemned material directly to the condemned material collection point where it is stored in dedicated containers. Bins used for condemned materials at the two inspection points are washed thoroughly before being used again.

Reworked or returned products are inspected by a qualified meat inspector and any products condemned by the inspector are placed in a dedicated bin marked "Condemned material". The bin is taken to the condemned material collection point and the material is placed in containers. The bins are washed and sanitized before being returned to the rework area.

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?

YES	NO
YES	NO

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

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

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

The air emissions generated by the abattoir and associated facilities do not require an Air Emissions License. The relevant impacts of these odours have been assessed in the Impact Assessment Section.

Construction Phase

The proposed developments will have a short-term and low, negative impact on the air quality of the property as a result of excavation activities that will take place during the construction phase of the project. Construction equipment will primarily produce emissions of nitrogen oxides (NO_x), hydrocarbons, suspended particulates and small amounts of sulphur dioxide (SO₂) from the use of diesel fuel (PM Group, 2006). With the correct mitigation measures introduced the dust can be controlled by means of suppression techniques such as the watering of cleared areas and the introduction of speed limits for construction vehicles operating onsite.

Operational Phase

During the operational phase, a number of sources will influence the quality of the air. These sources include the following:

- Slaughtering chickens and pigs require vast amounts of steam and hot water for cleaning and sterilisation purposes. Gasses such as CO₂, CO, NO_x and SO₂ are produced during heat generation. The generation of these greenhouse gasses can be controlled by proper resource usage;
- Evaporation of chilling liquids and stripping of freezing- and chilling- machines, when not in use, cause emissions of NH₃ and CFCs (Verheijen et al., 1996). This can be mitigated through proper maintenance of equipment and the disposal of old and ineffective equipment;
- CO₂ can be released from stunning equipment (European Commission, 2005);
- Transport vehicles will emit exhaust fumes (CO_x, CO_x, NO_x);
- Odours will emanate from the “dirty area” of the abattoirs, in particular from the blood and viscera;
- Odours will be released from the wastewater treatment works. These can include methane, ammonia and hydrogen sulphide. Odours will be significantly reduced through effective operation.
- The temporary storage of unwanted parts, such as the feathers, before they are taken to the off-site rendering plant, will produce odours;
- Some odours may originate from the product storage and handling areas.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?

YES	NO
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If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority.

e) Generation of noise

Will the activity generate noise?

YES	NO
YES	NO

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

Describe the noise in terms of type and level:

According to Jorgensen & Johnson (1981), the noise levels generated by general construction activities on a building site can reach levels of approximately 70 dB, caused by for instance heavy machinery. It can therefore be assumed that the proposed development will have a negative impact on the environmental noise of the area once construction starts.

Sound is inversely proportional to the distance from the source and can get absorbed by buildings and vegetation barriers. Noise intensities (dB) will be at their highest on site and will decrease as you move away from their sources.

The decline curve below (Figure 3) gives an indication of how noise generated at the site will decrease with distance. This gives a clear indication of the distance that the sound would have travelled upon reaching a level of 60 dB, prescribed by the SABS as being the acceptable limit for environmental noise.

According to Figure 3, at a distance of 27 metres from the construction site, the generated noise would have decreased to a level of 60 dB and at a distance of 45 metres it would have decreased to approximately 55dB. It can therefore be said that noise travelling further than 45 metres will have a low impact on neighbouring farms and residential areas. Distances to adjacent noise receptors are shown in Figure 4.

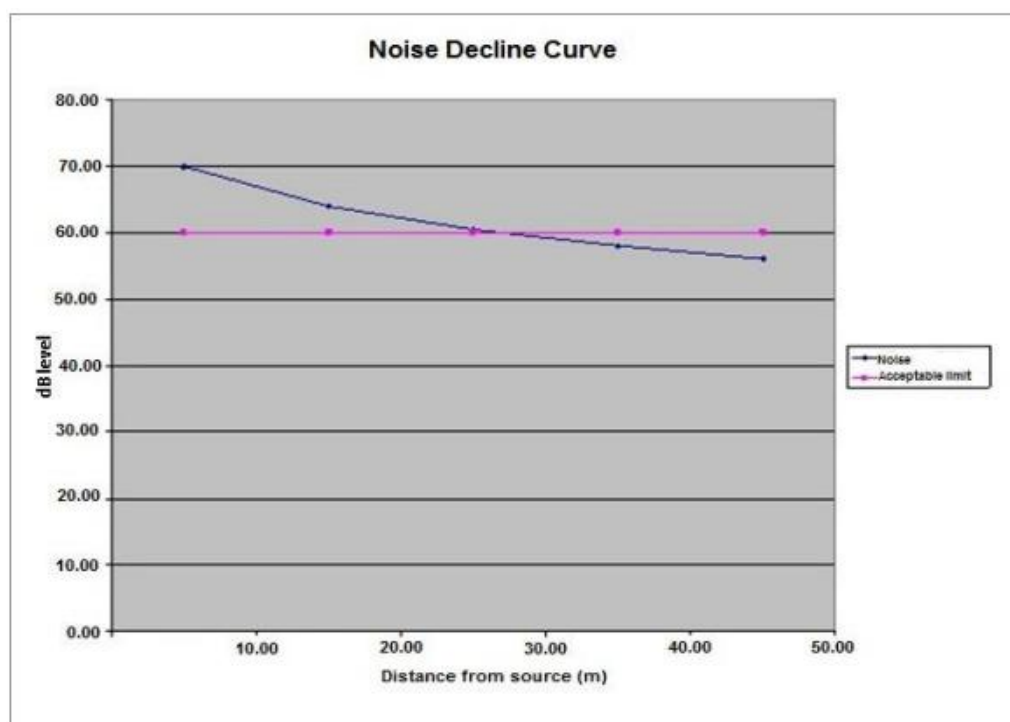


Figure 3: Noise decline curve

The construction phase of the proposed facilities will result in elevated noise levels related to the use of machinery, vehicles and contractors on site. Since the surrounding area is predominantly agricultural land, there are very few sensitive receptors. Provided that construction activities occur within normal working hours, disturbance by elevated noise levels are likely to be minimal.



Figure 4: Noise decline curve

13. WATER USE

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

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	The activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

1 188 000litres (Total)
 Poultry abattoir – 3 000ℓ/d
 Pig abattoir – 2 600ℓ/d
 Piggery – 4 000ℓ/d
 Broilers and Layer houses – 30 000ℓ/d

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?

YES	NO
------------	----

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

14. ENERGY EFFICIENCY

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

- Use of building material originating from sensitive environmental resources should be minimized.
- Building material should be legally obtained by the supplier, e.g. wood must have been legally harvested, sand should be obtained only from legal borrow pits and from commercial sources.
- Building material that can be recycled/ reused should be used rather than building material that cannot.
- Use of energy efficient equipment in the abattoir, including slaughtering machinery and lighting.

Should the project receive approval, there would be a consideration of the extensive use of solar power for electrifying the poultry facility. This electricity would be used for lighting and the powering of borehole pumps. This would aid self-efficiency in allowing the farm to continue with operations without relying on the national grid.

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

Where possible, standard practices regarding energy efficiency during the operational phase will be followed (e.g. the use of energy-saving light bulbs and solar pumps).

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

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

YES	NO
-----	----

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Free State Province
District Municipality	Thabo Mofutsanyana District Municipality
Local Municipality	Mantsopa Local Municipality
Ward Number(s)	2
Farm name and number	Twyfelfontein 1058
Portion number	2
SG Code	F021000000001058

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

Agriculture

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

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

NO

BASIC ASSESSMENT REPORT

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:



Alternative S2 (if any):

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

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

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

2.1 Ridgeline ☐	2.4 Closed valley ☐	2.7 Undulating plain / low hills ☐
2.2 Plateau ☐	2.5 Open valley ☐	2.8 Dune ☐
2.3 Side slope of hill/mountain ☐	2.6 Plain ☐	☒ 2.9 Seafront ☐
2.10 At sea ☐		

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

BASIC ASSESSMENT REPORT

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

4. GROUND COVER

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

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

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

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE
Artificial Wetland	YES	NO	UNSURE
Estuarine / Lagoonal wetland	YES	NO	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

There are no watercourses located near the development footprint.

6. LAND USE CHARACTER OF SURROUNDING AREA

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

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture

BASIC ASSESSMENT REPORT

Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial ^{AN}	Train station or shunting yard ^N	Mountain, koppie or ridge
Heavy industrial ^{AN}	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

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

Not applicable

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

Not applicable

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

Not applicable

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO
Core area of a protected area?	YES	NO
Buffer area of a protected area?	YES	NO
Planned expansion area of an existing protected area?	YES	NO
Existing offset area associated with a previous Environmental Authorisation?	YES	NO
Buffer area of the SKA?	YES	NO

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

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

YES	NO
Uncertain	

BASIC ASSESSMENT REPORT

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

See attached Heritage Impact assessment results.

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

YES

NO

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

YES

NO

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

EMPLOYMENT STATUS				
Unemployment rate (%)	30%	35.51%	29.20%	-
Employment rate (%)	70%	64.49%	23.10%	-

Figure 5: Mantsopa Local Municipality Level of Unemployment (Mantsopa Local Municipality Integrated Development Plan 2021/22).

It is evident that over the years since 1996 the unemployment rate fluctuated; however, the employment rate has been decreasing with it decreasing by more than half between 2001 and 2011.

Economic profile of local municipality:

INCOME STATUS				
Average household income			R19601-38200	-
Indigent households (below R3000)			1 426	-

Figure 6: Mantsopa Local Municipality Economic Profile (Mantsopa Local Municipality Integrated Development Plan 2021/22).

Level of education:

EDUCATIONAL STATUS				
Attending Educational Institution			14 456	-
No schooling			2 541	-
Primary enrolment rate			15 724	-
Secondary enrolment rate			21 625	-
% completed matric			2.60%	-
% completed higher education			4.80%	-

Figure 7: Mantsopa Local Municipality Level of Education (Mantsopa Local Municipality Integrated Development Plan 2021/22).

The graph above shows that a high number of individuals receive primary and secondary education but only a small percentage have completed matric as well as received a higher education.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	Undetermined
What is the expected yearly income that will be generated by or as a result of the activity?	Undetermined
Will the activity contribute to service infrastructure?	YES NO
Is the activity a public amenity?	YES NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	10-15
What is the expected value of the employment opportunities during the development and construction phase?	Undetermined
What percentage of this will accrue to previously disadvantaged individuals?	98%
How many permanent new employment opportunities will be created during the operational phase of the activity?	10-12
What is the expected current value of the employment opportunities during the first 10 years?	Undetermined
What percentage of this will accrue to previously disadvantaged individuals?	98%

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

- a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	According to the Environmental Screening Tool Report, the Terrestrial Biodiversity Theme of the assessment area is rated as being of 'very high sensitivity' for the presence of the Ecological Support Area two (ESA 2) as well as the vulnerable Eastern Free State Clay Grassland vegetation type (Gm 3). Due to the disturbed and degraded ecological state of the assessment area along with the continued anthropogenic activity and disturbance, the assessment area is therefore not representative/reminiscent of the natural climax state of the relevant Eastern Free State Clay Grassland vegetation type (Gm 3), which reduces the conservational significance of the area. It is consequently not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial conservation- and persistence targets of the area or to the continued ecological functionality and -integrity of the local surrounding landscape. Based on the outcomes and results of the site assessment, the specialist is therefore not in agreement with the sensitivity rating, but rather concludes that the Terrestrial Biodiversity Theme of the assessment area is rated as 'low sensitivity'.

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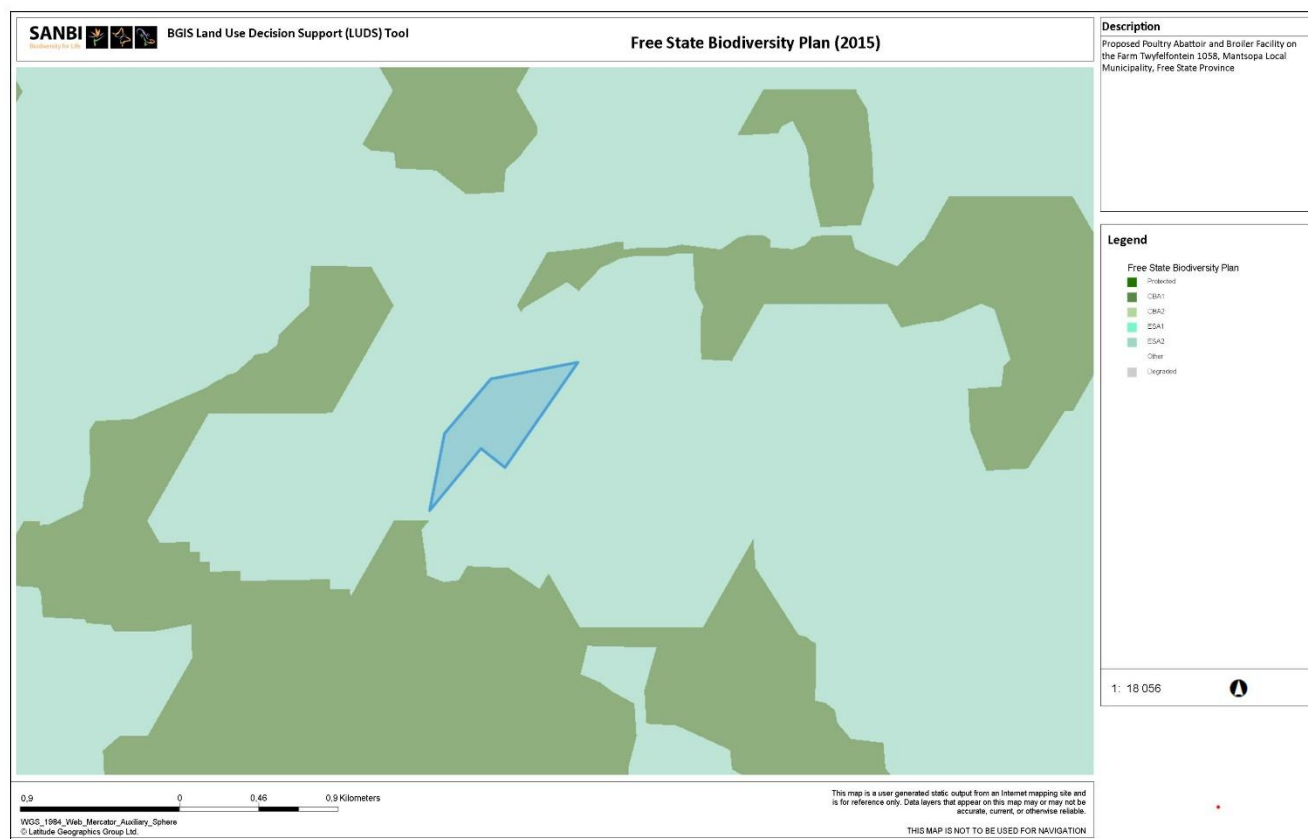


Figure 8: Free State Biodiversity Map (2015)

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	10%	The areas identified for the placement of the agricultural structures and facilities has been utilised as cultivation camps over the years. Very little natural vegetation cover remains. Due to the disturbed and degraded ecological state of the assessment area along with the continued anthropogenic activity and disturbance, the assessment area is therefore not representative/reminiscent of the natural climax state of the relevant Eastern Free State Clay Grassland vegetation type (Gm 3), which reduces the conservational significance of the area.
Near Natural (includes areas with low to moderate level of alien invasive plants)	30%	The footprint areas of the proposed chicken layer- and broiler houses are furthermore situated on an old historically cultivated agricultural cropland. The grassland is mainly dominated by the robust/resilient Increaser 2 type grass species <i>Eragrostis</i> spp. and <i>Cynodon dactylon</i> as well as the exotic grass species <i>Pennisetum clandestinum</i> (Van Oudtshoorn, 2004). The grass species

BASIC ASSESSMENT REPORT

		Aristida sp. was merely found to be sparsely present. This overwhelming dominance of hardy Increaser 2 type- and exotic grass species along with the complete absence of desired palatable Decreaser type climax grass species, confirms the disturbed and degraded ecological state of the assessment area. The grassland is also moderately to densely infested with the undesired indicator species of bush encroachment <i>Seriphium plumosum</i> as well as the legally declared alien invasive species <i>Verbena bonariensis</i> (Category 1b). This further reiterates the disturbed and degraded ecological state. A diverse forb-, succulent or shrub layer was not evident throughout the grassland, during the site assessment. This is most likely as a result of the moderate to highly disturbed and degraded ecological state of the area. The opportunistic pioneer- and weed species <i>Tagetes minuta</i>, <i>Bidens bipinnata</i>, <i>Conyza bonariensis</i> and <i>Pseudognaphalium luteoalbum</i> were mainly found to be dominant throughout the area.
Degraded (includes areas heavily invaded by alien plants)	40%	The grass species <i>Aristida</i> sp. was merely found to be sparsely present. This overwhelming dominance of hardy Increaser 2 type- and exotic grass species along with the complete absence of desired palatable Decreaser type climax grass species, confirms the disturbed and degraded ecological state of the assessment area. Species of bush encroachment <i>Seriphium plumosum</i> as well as the legally declared alien invasive species <i>Verbena bonariensis</i> (Category 1b) is found throughout the assessment area.
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	20%	Existing agricultural top-structures such as the farm stead, storerooms, cement water reservoir, etc. and the identified cultivated lands along with the continued anthropogenic activity and disturbance, the assessment area is therefore not representative/reminiscent of the natural climax vegetation type of the area.

c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems							
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline		
	Endangered								
	Vulnerable								
	Least Threatened	YES	NO	UNSURE	YES	NO	YES	NO	

An earth dam and associated broad seasonal water drainage plain is situated approximately 150 m north-west of the proposed piggery footprint area. This drainage plain possesses a distinct active streamflow channel with a surrounding broad uniform plain. The drainage plain assists with channelling low to moderate volumes of surface water runoff during rainfall events, from a small and confined local upstream catchment area. It is therefore evident from a hydrological perspective, that the drainage plain forms a moderately important part of the local and broader quaternary surface water catchment- and drainage area, towards the east.

Due to the lack of continuous natural water flow through the local area, the drainage plain does not possess any distinct riparian zone or significant variations in vegetation species composition or -structure, relative to the surrounding terrestrial landscape. The majority of the drainage plain constitutes a medium-height terrestrial grassland habitat, which is mainly dominated by the hydrophytic grass species *Eragrostis plana* and *Setaria incrassata*. The drainage plain has been slightly disturbed due to historical and continued long-term overgrazing by livestock.

According to the Environmental Screening Tool Report, the Aquatic Biodiversity Theme of the assessment area is rated as being of 'low sensitivity'. Based on the outcomes and results of the site assessment, the specialist is in agreement with this rating.

- d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

Geology and Soils

According to Mucina & Rutherford (2006) the geology of the landscape and associated vegetation types can be described as the following:

Mudstones, sandstones and shale of the Beaufort Group. Glenrosa, Bonheim, Avalon, Clovelly and Mayo soils dominate outcrops and slightly elevated areas, while moist bottomlands are rather dominated by Sepane, Arcadia, Estcourt and Rensburg soils. Mayour landtypes are Bb, Bd and Ca.

Biodiversity and Vegetation

The distribution of the Eastern Free State Clay Grassland consists of the Free State Province and marginally in Lesotho: Low-lying areas of the eastern regions of the province, covering the vicinities of Wepener (south), Petrus Steyn (north), Excelsior and east of Winburg (west) and Warden (east) and a thin extension between Maseru and Fouriesburg, with an altitude of 1 380–1 740 meters above sea level.

The vegetation and landscape features flat to gently rolling land surfaces covered with grassland dominated by *Eragrostis curvula*, *Themeda triandra*, *Cymbopogon pospischilii*, *Eragrostis plana*, *Setaria sphacelata*, *Elionurus muticus* and *Aristida congesta*. Overgrazing in certain areas and selective grazing of the grassland create a patchy appearance, with dominant and diagnostic species associated with small to large patches of a few hectares in diameter. A wide range of grazing regimes on the macro-scale and within grazing units in the area on the micro-scale, create this fragmentation.

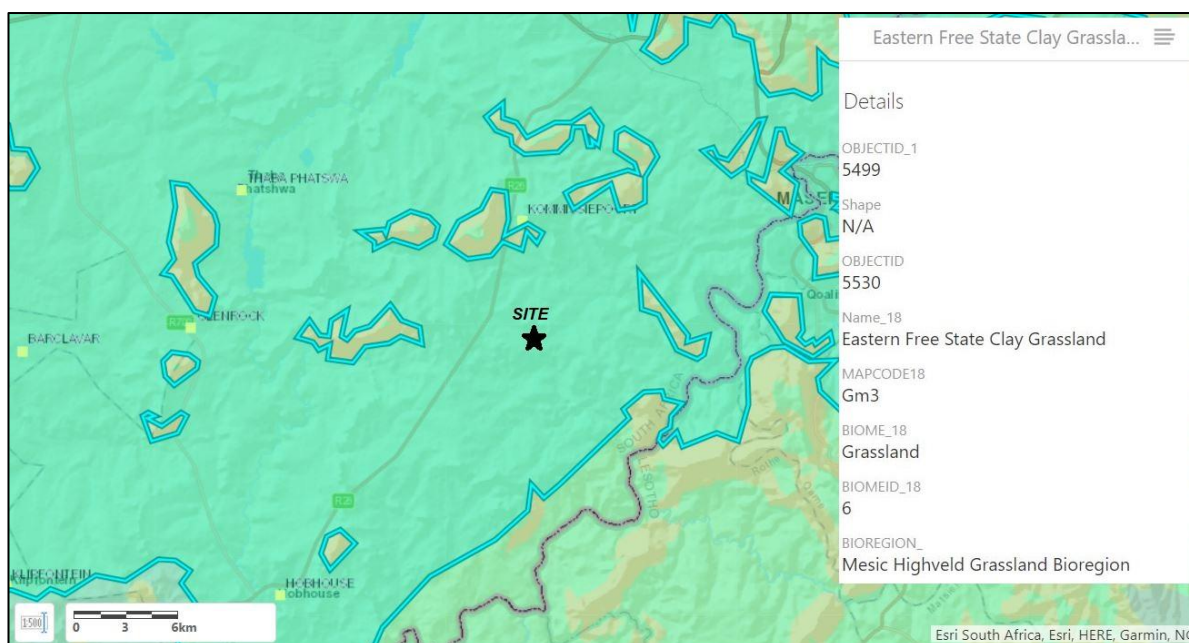


Figure 9: Eastern Free State Clay Grassland Map

The area falls within a summer-rainfall region, with the Mean Annual Precipitation (MAP) being around 630 mm. Much of the precipitation falls in form of thunderstorms between November and March. One of the coldest regions of the Highveld. Frost is very frequent in winter.

The grassland is mainly dominated by the robust/resilient Increaser 2 type grass species *Eragrostis spp.* and *Cynodon dactylon* as well as the exotic grass species *Pennisetum clandestinum* (Van Oudtshoorn, 2004). The grass species *Aristida sp.* was merely found to be sparsely present. This overwhelming dominance of hardy Increaser 2 type- and exotic grass species along with the complete absence of desired palatable Decreaser type climax grass species, confirms the disturbed and degraded ecological state of the assessment area.

The grassland is also moderately to densely infested with the undesired indicator species of bush encroachment *Seriphium plumosum* as well as the legally declared alien invasive species *Verbena bonariensis* (Category 1b). This further reiterates the disturbed and degraded ecological state.

A diverse forb-, succulent or shrub layer was not evident throughout the grassland, during the site assessment. This is most likely as a result of the moderate to highly disturbed and degraded ecological state of the area. The opportunistic pioneer- and weed species *Tagetes minuta*, *Bidens bipinnata*, *Conyza bonariensis* and *Pseudognaphalium luteoalbum* were mainly found to be dominant throughout the area.

No Red Data Listed-, other nationally protected- or other provincially protected plant species or any other plant species of conservational significance/value, were found to be present throughout the assessment area. As stated under heading 2, it must however be noted that the seasonal timing of the assessment was not necessarily favourable for successful identification of all plant species. Due to the disturbed and degraded ecological state of the assessment area along with the continued anthropogenic activity and disturbance, the assessment area is therefore not representative/reminiscent of the natural climax state of the relevant Eastern Free State Clay Grassland vegetation type (Gm 3), which reduces the conservational significance of the area. It is consequently not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial conservation- and persistence targets of the area or to the continued ecological functionality and -integrity of the local surrounding landscape.

According to the Environmental Screening Tool Report, the Plant Species Biodiversity Theme of the assessment area is rated as being of 'low sensitivity'. Based on the outcomes and results of the site assessment, the specialist is in agreement with this rating.

Wetlands and Aquatic Ecology

An earth dam and associated broad seasonal water drainage plain is situated approximately 150 m north-west of the proposed piggery footprint area. This drainage plain possesses a distinct active streamflow channel with a surrounding broad uniform plain. The drainage plain assists with channelling low to moderate volumes of surface water runoff during rainfall events, from a small and confined local upstream catchment area. It is therefore evident from a hydrological perspective, that the drainage plain forms a moderately important part of the local and broader quaternary surface water catchment- and drainage area, towards the east. Due to the lack of continuous natural water flow through the local area, the drainage plain does not possess any distinct riparian zone or significant variations in vegetation species composition or -structure, relative to the surrounding terrestrial landscape. The majority of the drainage plain constitutes a medium-height terrestrial grassland habitat, which is mainly dominated by the hydrophytic grass species *Eragrostis plana* and *Setaria incrassata*. The drainage plain has been slightly disturbed due to historical and continued long-term overgrazing by livestock (EcoFocus, 2023).

According to the Environmental Screening Tool Report, the Aquatic Biodiversity Theme of the assessment area is rated as being of 'low sensitivity'. Based on the outcomes and results of the site assessment, the specialist is in agreement with this rating.

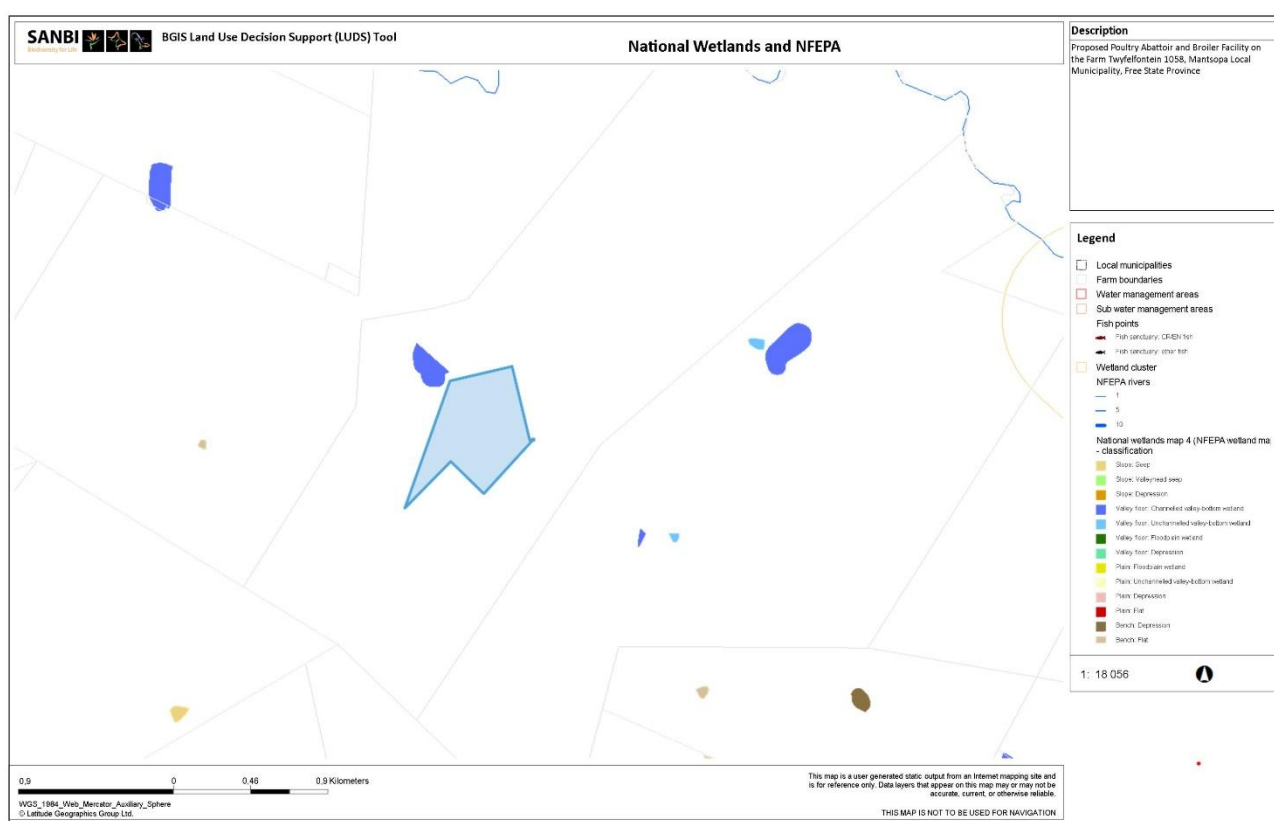


Figure 10: National Wetlands and NFEPA Map (SANBI bgis, 2018)

Conservation

The entire assessment area and local surrounding landscape is categorised as Ecological Support Area two (ESA 2), according to the Free State Provincial Spatial Biodiversity Plan (Collins, 2018), which sets out biodiversity priority areas in the province. ESA's are areas that must be maintained in at least fair ecological condition (semi-natural/moderately modified state) in order to support the ecological functioning of a Critical Biodiversity Area (CBA) or protected area, or to generate or deliver ecosystem services, or to meet remaining biodiversity targets for ecosystem types or species when it is not possible or not necessary to meet them in natural or near-natural areas (Collins, 2018).

Due to the disturbed and degraded ecological state of the assessment area along with the continued anthropogenic activity and disturbance, it is also not expected that the assessment area would specifically be utilised by any conservationally significant or important faunal or avifaunal species as refuge or for breeding, foraging and/or persistence purposes. The mobility of faunal/avifaunal species allows for individuals to simply leave an area where disturbance is taking place and relocate to surrounding similar, adequate areas.

It is therefore evident from a faunal biodiversity perspective, that the assessment area does not form an important part of the ecology of the area. It is consequently not anticipated that the proposed development would pose any significant risk to- or impact on the faunal or avifaunal communities throughout the local or broader surrounding landscape (EcoFocus, 2023).

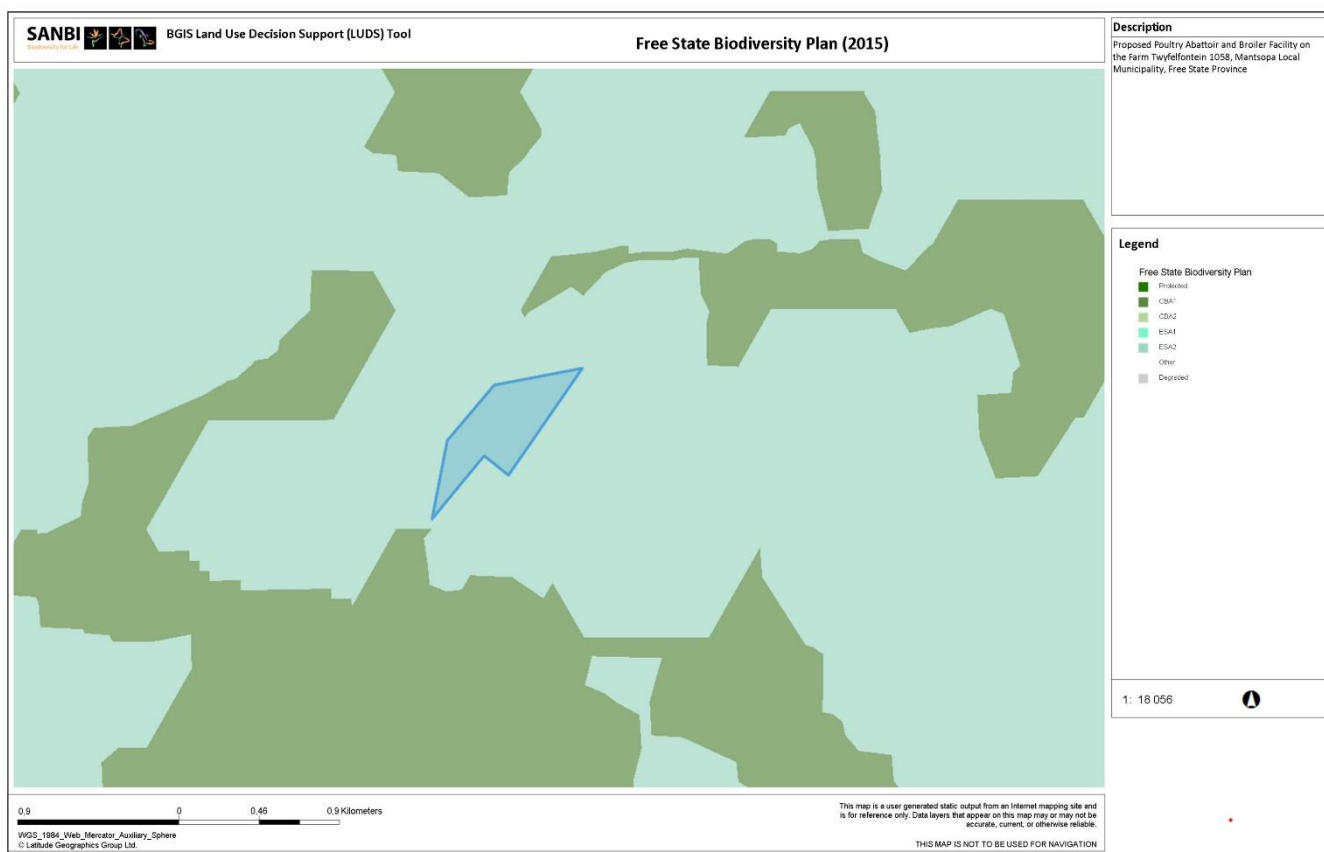


Figure 11: Free State Biodiversity Plan (SANBI bgis, 2015)

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Vrystaat Kroon	
Date published	06 September 2023	
Site notice position	Latitude	Longitude
	29°22'8.34"S	27°18'58.25"E
	29°22'48.14"S	27°18'36.91"E
Date placed	17 January 2023	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 326

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 326

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
South African Pork Producers Organisation	Association	012 100 3035
SA Poultry	Association	reception@sapoultry.co.za

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
To be included in the final BAR	To be included in the final BAR

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	e-mail
Department of Water and Sanitation: Free State	Mr N. Musekene	051 405 9000	MusekeneN2@dws.gov.za ; NtitiT@dws.gov.za ; KumaloZ@dws.gov.za ; MaseloaneK@dws.gov.za ; Mahlael@dws.gov.za ; LetloenyaneM@dws.gov.za LenongP@dws.gov.za
Free State Agriculture and Rural Development: State Vet Services (Ladybrand)	Dr T. Lerotholi (Animal Health & Disease Control: Ladybrand)	0660253108	lerotholit@yahoo.co.uk
Mantsopa Local Municipality: Municipal Manager	Ms MRE Mogopodi	0828822763	dirmogopodi@gmail.com
Thabo Mofutsanyana District Municipality: Municipal Manager	Ms. Takatso Lebenya	058 718 1036	takatso@tmdm.gov.za Mamogolo@tmdm.gov.za
Free State Heritage Resources Authority	Miss Ntando PZ Mbatha	066 479 2067	mbatha@heritagefreestate.co.za

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

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

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

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Assessment of Potential Impacts

The assessment of impact significance is based on the following conventions:

Nature of Impact - this review the type of effect that a proposed activity will have on the environment and should include “what will be affected and how?”

Spatial Extent - this should indicate whether the impact will be:

- Site specific;
- Local (<2 km from site);
- Regional (within 30 km of site); or
- National.

Duration - The timeframe during which (lifetime of) the impact will be experienced:

- Temporary (less than 1 year);
- Short term (1 to 6 years);
- Medium term (6 to 15 years);
- Long term (the impact will cease after the operational life of the activity); or
- Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient).

Intensity - it should be established whether the impact is destructive or innocuous and should be described as either:

- High (severe alteration of natural systems, patterns or processes such that they temporarily or permanently cease);
- Medium (notable alteration of natural systems, patterns or processes; where the environment continues to function but in a modified manner); or
- Low (negligible or no alteration of natural systems, patterns or processes); can be easily avoided by implementing appropriate mitigation measures, and will not have an influence on decision-making.

Probability - this considers the likelihood of the impact occurring and should be described as:

- Improbable (little or no chance of occurring);
- Probable (<50% chance of occurring);
- Highly probable (50 – 90% chance of occurring); or
- Definite (>90% chance of occurring).

Reversibility - this considers the degree to which the adverse environmental impacts are reversible or irreversible.

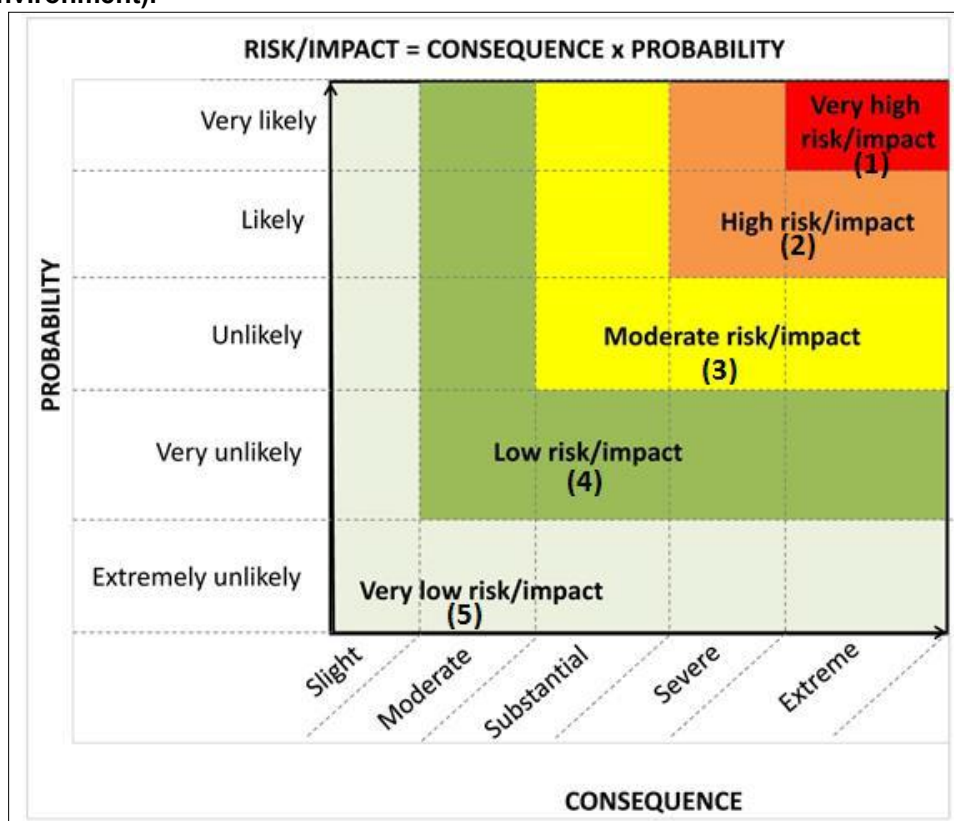
For example, an impact will be described as low should the impact have little chance of being rectified to correct environmental impacts. On the other hand, an impact such as the nuisance factor caused by noise impacts from wind turbines can be considered to be highly reversible at the end of the project lifespan. The assessment of the reversibility of potential impacts is based on the following terms:

- High - impacts on the environment at the end of the operational life cycle are highly reversible;
- Moderate - impacts on the environment at the end of the operational life cycle are reasonably reversible;
- Low - impacts on the environment at the end of the operational life cycle are slightly reversible; or
- Non-reversible - impacts on the environment at the end of the operational life cycle are not reversible and are consequently permanent.

Irreplaceability - this review the extent to which an environmental resource is replaceable or irreplaceable. For example, if the proposed project will be undertaken on land that is already transformed and degraded, this will yield a low irreplaceability score; however, should a proposed development destroy unique wetland systems for example, these may be considered

irreplaceable and thus be described as high. The assessment of the degree to which the impact causes irreplaceable loss of resources is based on the following terms:

- High irreplaceability of resources (this is the least favourable assessment for the environment);
- Moderate irreplaceability of resources;
- Low irreplaceability of resources; or
- Resources are replaceable (this is the most favourable assessment for the environment).



Guide to assessing risk/impact significance as a result of consequence and probability.

The status of the impacts and degree of confidence with respect to the assessment of the significance is stated as follows:

Status of the impact: A description as to whether the impact will be:

- Positive (environment overall benefits from impact);
- Negative (environment overall adversely affected); or
- Neutral (environment overall not affected).

Degree of confidence in predictions: The degree of confidence in the predictions, based on the availability of information and specialist knowledge. This should be assessed as:

- High;
- Medium; or
- Low.

Based on the above considerations, the specialist provides an overall evaluation of the significance of the potential impact, which should be described as follows:

- Low to very low: the impact may result in minor alterations of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated;

- **Medium:** the impact will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated; or
- **High:** Where it could have a “no-go” implication for the project unless mitigation or re-design is practically achievable.

Furthermore, the following must be considered:

- Impacts should be described both before and after the proposed mitigation and management measures have been implemented.
- All impacts should be evaluated for the construction, operation and decommissioning phases of the project, where relevant.
- The impact evaluation should take into consideration the cumulative effects associated with this and other facilities which are either developed or in the process of being developed in the region, if relevant.

Management Actions:

- Where negative impacts are identified, migratory measures will be identified to avoid or reduce negative impacts. Where no migratory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
- Quantifiable standards for measuring and monitoring migratory measures and enhancements will be set. This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

Monitoring:

Specialists and/ or EAP's should recommend monitoring requirements to assess the effectiveness of mitigation actions, indicating what actions are required, by whom, and the timing and frequency thereof.

Cumulative Impact:

Consideration is given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts are evaluated with an assessment of similar developments already in the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

Mitigation:

The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximise re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested. All impacts are assessed without mitigation and with the mitigation measures as suggested.

BASIC ASSESSMENT REPORT

ALTERNATIVE A1 (PREFERRED ALTERNATIVE)			
CONSTRUCTION PHASE			
Potential impacts	Significance rating & status of impacts	Proposed mitigation	Significance rating & status of impacts after mitigation
Direct impacts:			
Loss or destruction of fertile topsoil, due to poor planning of facility placement.	Low- Negative	Topsoil will inevitably be disturbed by the placement of the broiler units. The topsoil has however been disturbed by previous construction activities, as well as other human activities on the site itself.	Very Low- Negative
Soil erosion due to the improper placement of the facility and lack of storm water management structures of the broiler units.	Low- Negative	Erosion control measures should be planned for and implemented to prevent soil erosion at the facility sites. The proposed construction site needs to be constructed far away from any storm water area.	Very Low- Negative
Loss of vegetation from clearing of vegetation and increase in vehicle and human activity	Low- Negative	No landscaping should be performed around the facilities. A large number of poultry production facilities in South Africa have expansive lawns around their developments. This must be avoided. Natural vegetation must be allowed to recover in areas of disturbance. If recovery is slow, then a seed mix for the area (using indigenous grass species listed within this report) should be sourced and planted. Briefly and effectively stockpile topsoil (preferably 1-1.5m in height) to maintain the viability of the indigenous seed bank for subsequent re-vegetation of any disturbed areas. Highlight all prohibited activities to workers through training and toolbox talks.	Very Low- Negative
Environmental contamination from building rubble, chemical leaks, spills and emissions, human excrement, and litter	Low- Negative	Spills on soil should be contained by using oil absorbents and/or peat sorbs to absorb the spill. This should be cleaned and removed into adequate hazardous waste containers. All contaminated soil must be removed and placed into hazardous waste bins or should be bio-remediate. Under no circumstances must spilled products be disposed of in sewers or storm water drains or be deliberately ignited. Spills on water must be addressed by personnel on site or by pollution control	Very Low- Negative

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		contractors, using oil absorbents or oil skimmers. Oil contaminated absorbent material or skimmed-off chemicals need to be disposed of in hazardous waste bins or sealable drums. Regularly check vehicles, machinery and equipment operating to ensure no leaks are present. A minimum approximately 120 m Water Quality- and Biodiversity Buffer distance is therefore recommended to be implemented around the drainage plain. No current or future development or transformation may take place within the buffered zone.	
Emissions from construction vehicles and generation of dust as result of earthworks, demolition, as well as the delivery and mixing of construction materials.	Low- Negative	Ensure that construction vehicles travelling on unpaved roads do not exceed a speed limit of 40 km/h. Limit vehicles, people and materials to the construction site. Noise should also be minimised throughout construction to limit the impact on sensitive fauna such as owls and large terrestrial birds such as Koran's and Secretary birds. Limit construction activities to daytime hours.	Very Low- Negative
Potential visual intrusion of Construction/demolition activities on the views of sensitive visual receptors.	Low- Negative	Litter and rubble should be timeously removed from the construction site and disposed at a licenced waste disposal facility. Appropriate plans should be in place to minimise fire hazards and dust generation. The contractor(s) should maintain good housekeeping on site to avoid litter and minimise waste. Night lighting of the construction site should be minimised within requirements of safety and efficiency. The contractor should maintain good housekeeping on site to avoid litter and minimise waste.	Very Low- Negative
Noise generation from demolition and construction work (e.g. grinding and use of angle grinders), as well as from the removal of waste material.	Low- Negative	Construction personnel must wear proper hearing protection, which should be specified as part of the construction phase. Ensure construction personnel are provided with adequate Personal	Very Low- Negative

BASIC ASSESSMENT REPORT

		Protective Equipment (PPE), where appropriate.	
No-go alternative			
Direct impacts: - None of the impacts mentioned above will occur. - The existing site will remain uncleared which will result in no clearance of indigenous vegetation and in addition, no clearance of present alien species. - If the proposed project does not proceed, increased income and economic spin-off activities will not be realised. - Customers of the proposed broiler units will not be provided with poultry which is high in protein. - If the proposed project does not proceed, the industries that rely on the supply of poultry products, could experience hindered economic growth potential. Indirect impacts: - There are no indirect impacts during the construction phase for the No-go Option. Cumulative impacts: - There are no cumulative impacts during the construction phase for the No-go Option.			
ALTERNATIVE A1 (PREFERRED ALTERNATIVE)			
OPERATIONAL PHASE			
Potential impacts	Significance rating & status of impacts	Proposed mitigation	Significance rating & status of impacts after mitigation
Direct impacts:			
Poor/Inappropriate control of invertebrate pests such as flies, ants, termites, cockroaches, fleas, lice, mites.	Moderate-Negative	Remove all trash, and sources of feed and water for pests from the outside perimeter of the facilities. Moisture management, sanitation and manure removal are the keys to reducing pest problems in manure. Dry manure reduces the suitability for fly oviposition (egg laying) and larval development. It also provides a suitable habitat for beneficial predators and parasites. Chicken feed should be mixed with Larvadex to kill any fly larvae in the food. Electrocution devices are available to kill flies, while other mechanical devices include traps, sticky tapes or baited traps.	Low- Negative
Environmental contamination from chicken excrement, carcasses and feed, and other operational waste	Moderate-Negative	Implement effective measures to rehabilitate accidentally contaminated areas. Implement procedures and measures (e.g. sand traps) to prohibit accidental dirty water or contamination from entering the surrounding environment. Dispose of waste and animal feed in an environmentally friendly way, and do	Low- Negative

BASIC ASSESSMENT REPORT

		not let the contaminated waste enter the surrounding area.	
Poor/Inappropriate control of vertebrate pests such as rodents, snake's mammalian, and carnivores.	Moderate-Negative	Remove all trash, and sources of feed and water for pests from the outside perimeter of the facilities. Glue boards and traps can be used in small areas. Keep grass and weeds mowed to 5cm or less immediately around the facilities, to prevent insect growth and hiding places for rats and mice.	Low- Negative
Impacts of increased odours resulting from broiler units facility. And emissions from staff vehicles.	Moderate-Negative	Ensure that excrement, carcasses, feed, and other operational waste and hazardous materials are appropriately and effectively contained and disposed of without detriment to the air quality of the receiving environment. Ensure that the facility is operated in such a manner whereby potential odour are minimised. Efficient movement of traffic through the entrance and exit in order to reduce congestion and vehicle emissions.	Low- Negative
Potential visual intrusion of structures and buildings associated with the proposed development on existing views.	Low - Negative	No specific mitigation measures are recommended.	Very Low - Negative
Potential noise impact from operations and road transport of products during the operational phase.	Low - Negative	Limit the effects of noises associated with the broiler units on the environment by only handling the chickens during the day in working hours. Any operation which will lead to an increase in noise should be done during the day time, during working hours. Reliable vehicles should be used to transport poultry, no vehicles with broken baffles and/ or un-roadworthy vehicles should be used.	Very Low- Negative
Land contamination as a result of storage of chicken waste on the proposed waste storage facility	Low - Negative	Ensure that the waste storage facility is free from odour or emissions at levels that are likely to cause annoyance. Training must be provided continuously to all employees working with waste. The waste storage facility must be operated within its design capacity. Implement an adequate Waste Management Plan during the operational phase of the proposed	Very Low- Negative

BASIC ASSESSMENT REPORT

		development. This must be done to sufficiently manage waste generation, storage and disposal associated with the established piggery as well as chicken layer- and broiler houses. It is presumed and reasonably expected that the design specifications and size parameters of the proposed evaporation pond/s will ensure adequate containment and subsequent evaporation of the required maximum potential volumes of generated waste effluent, even during significant rainfall events. Under no circumstances may intentional discharges or unintentional overflows or spillages of untreated effluent from the evaporation pond/s, piggery or chicken layer- and broiler houses take place as this could potentially lead to contamination of the water drainage plain. The proposed evaporation pond/s must be sufficiently lined, in accordance with the relevant minimum norms and standards, in order to prevent undesired seepages or leakages into the groundwater resources.	
Decrease in fauna and flora due to increased foot traffic during operations of the broiler units development.	Low- Negative	Only designated footpaths to be used by construction personnel to be used. Natural vegetation should be protected as far as possible and alien vegetation should be removed. Proper training to highlight prohibited activities should take place regularly.	Very Low- Negative
Impact of extra operational vehicles on the road network of the area.	Low- Negative	Drivers should be made aware of the dangers involved in driving on a more congested road. Traffic signals and road rules should be followed. Drivers should adhere to speed limits on the road.	Very Low- Negative
Pollution and Reduction of water availability because of increased abstraction from ground and surface water resources.	Low - Negative	Water conservation should be practised throughout all the relevant phases. Borehole pumps, water pipes and water tanks should be checked for leaks daily. Water should be used sparingly, and the saving of water should be promoted.	Very Low- Negative

BASIC ASSESSMENT REPORT

		Implement an adequate Stormwater and Erosion Management Plan during the construction- and subsequent operational phases of the proposed development. This must be done to sufficiently manage storm water runoff and clean/dirty water separation, in order to prevent any significant soil erosion from occurring within and around the assessment area and to attempt to maintain the ecological functionality and -integrity of the local and broader quaternary surface water catchment- and drainage area.	
Increased job opportunities and boosting of local economic development in the area.	Moderate-Positive	No mitigation measures is identified.	Moderate- Positive
Secondary industries may benefit from the proposed broiler units, and the provision of poultry.	Low –Positive	Stimulate secondary industries and offer financial incentives in order to benefit these industries.	Moderate -Positive
No-go alternative Direct impacts: - None of the impacts mentioned above will occur. - The existing site will remain uncleared which will result in no clearance of indigenous vegetation and in addition, no clearance of present alien species. - If the proposed project does not proceed, increased income and economic spin-off activities will not be realised. - Customers of the proposed broiler units will not be provided with poultry, which is high in protein. - If the proposed project does not proceed, the industries that rely on the supply of poultry products, could experience hindered economic growth potential. Indirect impacts: - There are no indirect impacts during the construction phase for the No-go Option. Cumulative impacts: - There are no cumulative impacts during the construction phase for the No-go Option			

ALTERNATIVE A1 (PREFERRED ALTERNATIVE)			
DECOMMISSIONING AND CLOSURE PHASE			
Potential Impacts	Significance rating & status of impacts	Proposed mitigation	Significance rating & status of impacts after mitigation
Direct Impacts:			
1. Environmental Contamination from building rubble, chicken excrement, carcasses and feed, other operational waste and chemical leaks.	Moderate-Negative	Leftover animal feed, excrement, carcasses, dirty water, building rubble and any other waste should be prohibited from entering the surrounding environment. Regularly inspect vehicles entering the facility to detect any oil leaks or diesel spills, especially heavy vehicles. Dead chickens should be disposed of in the mortality pit, the pit should be	Low- Negative

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		situated far away from the broiler units itself.	
2. Emissions from decommissioning vehicles and generation of dust as a result of earthworks and demolition.	Low- Negative	Approved soil stabilisers may be utilised to limit dust generation. Ensure that decommissioning vehicles travelling on unpaved roads do not exceed the speed limit of 40 km/h. Ensure that cleared (excavated) areas and unpaved surfaces are sprayed with water to minimize dust generation.	Very Low- Negative
3. Potential visual intrusion of decommissioning activities on the existing natural environment.	Low-Negative	The contractor should maintain good housekeeping on site to minimise waste. The project developer should demarcate decommissioning boundaries and minimise areas of surface disturbance. Plans should be in place to minimise fire hazards and dust generation. Rubble should be timeously removed from the work site and disposed at a licenced waste disposal facility.	Very Low- Negative
4. Noise generation from demolition activities during the decommissioning phase.	Moderate-Negative	The contractor decommissioning the broiler units should only work during working hours, no work must be done during the night time. The Contractor must ensure that all decommissioning personnel are provided with adequate PPE, where appropriate	Low- Negative
5. Loss of jobs and income for workers.	Moderate-Negative	Ensure workers obtain training so that they can gather skills in order to get new jobs once the broiler units are decommissioned. Establish relationships with local economic development in order to get working opportunities on other projects. Learn from bigger broiler units in order to grow business. Even in new related fields.	Low- Negative
Cumulative impacts: Consideration must be given to the extent of any accumulative impact that may occur because of the proposed development. These impacts will either be positive or negative, and will be graded as being of negligible, low, medium or high impacts.			

A complete impact assessment in terms of Regulation 19(3) of GN 326 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

During the construction phase, the project can be expected to have low negative impacts on various environmental attributes with proper mitigation measures implemented. Similarly, the project can be expected to have a positive impact on the regional and local socio-economy during the construction phase. This will be as a result of the creation of jobs as well as procurement opportunities from local suppliers in the area. These benefits can be maximised through preference in procurement processes to local firms and employment of local labourers.

No threatened animals were found during the site inspection.

Once operational, the abattoir and broilers will directly contribute to the local economy and state of education, and indirectly to the regional and national economy and state of education. Benefits of the project outweigh the potential negative environmental and social impacts, which can be mitigated to within acceptable levels. Based on the outcomes of the risk assessments conducted as part of this assessment, coupled with the recommendations made by the EAP, the overall negative impact of the project is of Low - Medium significance, which can be reduced to Low significance through the implementation of simple, effective mitigation measures. The following recommendations are thus made: -

- 🌱 The project should be approved and allowed to proceed.
- 🌱 The Mitigation measures proposed above, which have been incorporated into the EMP in more detail, must be implemented during the construction and operational phases.
- 🌱 A communications pathway must be established that would allow the designated ECO to accept and deal with stakeholder complaints.
- 🌱 Mitigation measures proposed above should be incorporated as far as possible into the operational plan for the development.
- 🌱 Strict monitoring and enforcement of requirements of the EMP must be undertaken to ensure that contractors and operators adhere to these requirements.

Alternative B

Not applicable

Alternative C

Not applicable

No-go alternative (compulsory)

This option assumes that a conservative approach would ensure that the environment is not impacted upon any more than is currently the case, with the current areas as described above being in an already transformed state. It is important to state that this assessment is informed by the current conditions of the area. Should the Competent Authority decline the application, the 'No-Go' option will be followed, and the status quo of the site will remain.

SECTION E. RECOMMENDATION OF PRACTITIONER

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

YES

NO

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

-

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

-  All mitigation measures listed in the BAR as well as the EMPr must be implemented and adhered to.
-  The monitoring of the construction site must be carried out by a qualified Environmental Compliance Officer (ECO) with proven expertise in the field so as to ensure compliance to the Environmental Management Programme (EMPr)
-  Mitigation measures and strict waste management should ensure the prevention of contamination on site.
-  Construction activities should be done in accordance with the construction plan from the Department of Agriculture.
-  Construction activities should be limited to the designated construction area.
-  No vehicles should drive outside the restricted construction site.
-  Restrict all habitat loss and disturbances from construction activities to within the proposed and agreed upon site layout.
-  No hunting should be prohibited, the removal of indigenous vegetation should not take place under any circumstances.
-  Alien vegetation should be removed from site, and immediately be carted off to a dumping site.
-  Workers should have "toolbox talks" in order to differentiate between indigenous and alien vegetation.
-  Ensure that excrement, carcasses, feed, and other operational waste and hazardous materials are appropriately and effectively contained and disposed of without detriment to the environment.
-  Detect and control pest infestations before they become a problem through frequent and careful cleaning, monitoring and control.
-  During construction there should be adherence towards noise regulations, work should only be done during the daytime, especially areas close to the current farm homestead.
-  Ensure that flammable materials are stored in an appropriate safe house. Ensure that there are appropriate control measures in place for any accidental fires. If artificial burning is considered necessary to reduce risks to human and infrastructure safety from wildfires, a fire management plan should be compiled with input from an appropriate floral specialist, and diligently implemented.
-  Annual wildfires should be strictly prohibited.
-  Erosion control measures must be implemented.
-  During the construction phase there will be increased surface water runoff and a decreased water quality. Completing construction during the winter months would help mitigate the environmental impact.
-  Animals that have died (not been slaughtered) from the facility should be disposed of in the mortality pit and should not be sold to anyone.
-  Proper waste management need to be carried out, and all unusable / condemned material should be discarded of at the mortality pit after separation and determination of usability.

Is an EMPr attached?

YES

NO

The EMPr must be attached as Appendix G.

BASIC ASSESSMENT REPORT

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

Danie Krynauw

NAME OF EAP



SIGNATURE OF EAP

01 November 2025

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

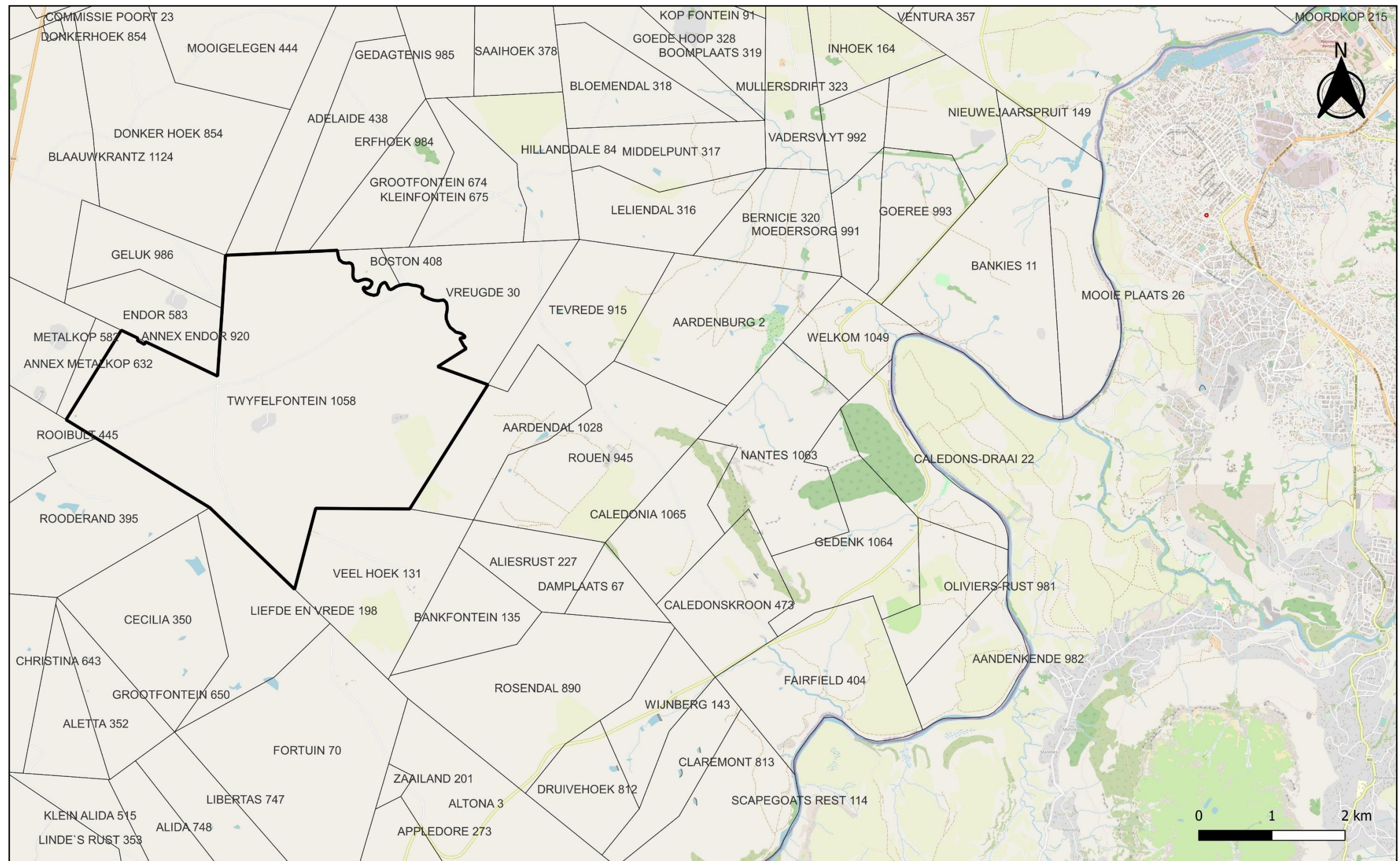
Appendix J: Additional Information

Appendix A: Maps

Proposed Pig & Poultry Abattoir, Piggery, Poultry Layerhouses and Poultry Broiler Facility on the Farm Twyfelfontein 1058

Mantsopa Local Municipality, Free State.





**Proposed Poultry Abattoir and Broiler Facility on the Farm
Twyfelfontein 1058, Mantsopa Local Municipality, Free State
Province**



GREEN-BOX
CONSULTING

1:50 000 Locality Map

Prepared for: Khora Farm Enterprise
Prepared by: Green-Box Consulting
QGIS 3.22.0 - Białowieża

03 July 2023

Appendix B: Photographs



Photo 1: Access road situated on the farm



Photo 2: Patchy grasslands surrounding the access road on site



Photo 3: Vegetation consisting of a mix of grasses and invasive species on site



Photo 4: Vegetation consisting of a mix of grasses and invasive species on site

Appendix C: Facility illustration(s)

Proposed Pig & Poultry Abattoir, Piggery, Poultry Layerhouses and Poultry Broiler Facility on the Farm Twyfelfontein 1058

Mantsopa Local Municipality, Free State.



Khora Farm Enterprise - Farm Twyfelfontein No. 1058 Agricultural Development, Ladybrand, Free State Province

Locality Map

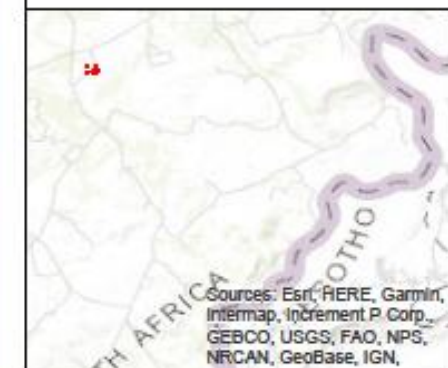
Legend

- Chicken broiler houses
- Chicken layer houses
- Poultry abattoir
- Piggery
- Pig abattoir

DATUM: WGS 84
 PROJECTION: Geographic
 DATE: September 2023
 SCALE: 1: 2 000

Prepared by: **EcoFocus**
 Ecological Specialist Services

Prepared for: **Green Box Consulting**
 Integrated Environmental Management



Khora Farm Enterprise - Farm Twyfelfontein No. 1058 Agricultural Development, Ladybrand, Free State Province



Site Sensitivity Map

Legend

- Chicken broiler houses
- Chicken layer houses
- Poultry abattoir
- Piggery
- Pig abattoir
- Drainage plain
- Buffer zone

DATUM: WGS 84
 PROJECTION: Geographic
 DATE: September 2023
 SCALE: 1: 3 000

Prepared by: **EcoFocus**
 Ecological Specialist Services
 066 471 1111

Prepared for: **Green Box Consulting**
 Integrated Environmental Management



Appendix D: Specialist reports (including terms of reference)

- 1. Ecological Impact Assessment report;**
- 2. Heritage Impact Assessment report.**

Appendix E: Public Participation

Publication name	VrystaatKroon	
Date published	06 September 2023	
Site notice position	Latitude	Longitude
	29°22'8.34"S	27°18'58.25"E
	29°22'48.14"S	27°18'36.91"E
Date placed	17 January 2023	

1. Newspaper Advert:



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THIS PROMOTION IS RUN BY FREESTATE PETROLEUM DISTRIBUTORS (PTY) LTD, BRANDED MARKETER OF CALTEX IN THE FREESTATE. THE CALTEX MARK IS OWNED BY CHEVRON AFRICA - PAKISTAN SERVICES (PTY) LTD UNDER LICENSE TO ASTRON ENERGY (PTY) LTD. TS AND C'S APPLY.

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(2002/017393)
AVENUE, WIL
TEL: 018-468

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT APPLICATION

Proposed development of Agricultural Facilities on the Farm Twyfelfontein 1058, Mantsopa Local Municipality, Free State

In terms of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended April 2017) published under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), as amended, notice is hereby given of Khora Farm Enterprise intention to obtain environmental authorisation for the development of agricultural related facilities.

The facilities will include:

- Pig abattoir;
- Poultry abattoir;
- Piggery;
- Poultry layer houses; and
- Poultry broiler houses.

Location of the proposed project: The project area is located on a farm situated within the Magisterial District of Ladybrand, Free State. The project site comprises of a Portion of the farm Twyfelfontein 1058, middle point coordinates is at: 29°22'33.41"S; 27°19'0.22"E.

Environmental Authorisation: The project triggers activities listed in Listing 1 (GN R 327) of the 2014 EIA Regulations (as amended April 2017), published under NEMA and therefore requires environmental authorisation via the undertaking of a Basic impact assessment process. The Basic Assessment (BA) will be inclusive of technical studies and public participation. The competent authority responsible for issuing environmental authorization is the Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs. The application for environmental authorisation is for the following listed activities: Listing Notice 1 (GNR No. 327) Activities 3(i)(ii) and 5.

Please note that comment will be sought from the South African Heritage Resources Agency (SAHRA) in terms of the National Heritage Resources Act, Act 25 of 1999. The BA Process will also confirm the need for a Water Use License (WUL) or General Authorisation (GA) registration in accordance with the National Water Act, Act 36 of 1998, as amended.

Green-Box Consulting has been appointed as the Environmental Assessment Practitioner (EAP) to undertake and manage the BA process for the proposed Agricultural Project on behalf of the applicant. To ensure that you are registered as an Interested and Affected Party, please send your details, motivation for participation and inputs in written format via email or post to Green-Box Consulting. Written inputs to reach us within 14-days of placement of this notice.

Danie Krynauw, Green-Box Consulting- P.O. Box 37738, Langenhovenpark 9330, Cell: 082 435 2108, or e-mail: danie@green-box.co.za

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Advert snip (VrystaatKroon, 06 September 2023)

In Waddensland wat op 20 Julie by die Bloemhofdam boere Kromstad ontstaan het, het groot vrees ontstaan om die oprigting gesaai. Die brand het in die omringende heide na Doornbosk versprei, sanderig deur wind met 'n sterkte van 68 km/h. Dwaalwinde het die vuur ook in noordoek na suidelike rigtings gedwing. Boere het bykans 11 000 ha verloor, asook beeste, in die brand verloor. Voormalig-voerder het op 15 Augustus 34 ton veevoer op Super 18 aan boere wat skade gely het, geskenk. Van links is Soes le Roux (agente vir Voormalig-voereers) saam met Herman Spies (boer en voorstatter van die Eerste-boerevereniging) en Nico Lategan (boer van Kromstad), wat die skenkings in omvangs geneem het. FOTO: WILLEM



YvastestKroon and Medica24 have not verified whether any of the services or products advertised will have the desired effect or outcome. Readers will note that some of the promised results in the advertisements are extraordinary and may be impossible to achieve. Beware some of the procedures and claims advertised may be dangerous if not executed by a qualified medical practitioner. Readers are warned that they should carefully consider and verify the advertiser's credentials. YvastestKroon and Medica24 do not accept any liability whatsoever in respect of any of the services or goods advertised.

[illegible][illegible]

Owner: Hanske Muller (overseas) Trust, farm Tweespunt, District Vrijenboskroon, 9520.
By address: Suburban Energy (Pty) Ltd, P.O. Box 785553, Sandton, 2146. ADDRESS OF
OF AUTHORIZED AGENT: MAXIM PLANNING SOLUTIONS (PTY) LTD
200320 17393 071, UNIT 35 CORPUS NOVIUM OFFICE PARK, 35 DR. YUSUF DADOO
JAGJEE, WILKOPPIES, KLERKSDORP, 2571, P.O. BOX 6848, FLAMMOOD, 2572.
TEL: 018-468 636 6 (2/1983)



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Proposed development of Agricultural Facilities on the Farm Twyalfontein 1058, Mankopje Local Municipality, Free State

In terms of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended April 2017) published under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), as amended, notice is hereby given of Khosi Farm Enterprise's intention to obtain environmental authorisation for the development of agricultural related facilities.

The facilities will include:

- Pigabattoir;
- Poutryabattoir;
- Piggery;
- Poutrylayerhouses and
- Poutrybroilerhouses.

Location of the proposed project: The project area is located on a farm situated within the Magisterial District of Ladybrand, Free State. The project site comprises of a Portion of the farm Twalffontein 1058, middle point coordinates is at 29°22'39.41"S; 27°19'0.22"E.

Environmental Authorizations: The project/program activities listed in Listing 1 (GNR 327) of the 2014 EIA Regulations (as amended April 2017), published under NEMA and therefore requires environmental authorization via the undertaking of a basic impact assessment (BIA) under the Environmental Assessment Act will be inclusive of technical studies and public participation. The competent authority responsible for issuing environmental authorization is the Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs. The application for environmental authorization is for the following listed activities: Listing Notice 1 (GNR No. 327) Activities 30/31 and 5.

Please note that comment will be sought from the South African Heritage Resources Agency (SAHRA) in terms of the National Heritage Resources Act, Act 25 of 1999. The BAP process will also confirm the need for a Water Use License (WUL) or General Authorisation (GA) registration in accordance with the National Water Act Act 36 of 1998, as amended.

Green-Bar Consulting has been appointed as the Environmental Assessment Practitioner (EAP) to undertake and manage the EIA process for the proposed Agricultural Project on behalf of the applicant. To ensure that you are registered as an Interested and Affected Party, please send your details, motivation for participation and inputs in written format via email or post to Green-Bar Consulting. Written inputs to reach us within 14 days of placement of this notice.

Daniël Krynszaw, Green-Box Consulting, P.O. Box 37738, Langenhovenpark 9330, Cell: 082 436 2108,
e-mail: daniel@green-box.co.za



KROONSTAD VOLKSWAGEN - VACANT POSITIONS
SALES EXECUTIVE NEW & USED

MINIMUM REQUIREMENTS

- Senior Certificate (Grade 12)
- A tertiary marketing and/or sales qualification would be advantageous
- A minimum of 2 years sales experience within the motor industry is a pre-requisite
- An effective understanding of the Sales cycle is essential
- Computer literate
- Unendorsed South African driver's license - code 8
- Bilingual
- Good communication skills, with neat appearance and even tempered manner
- Honest and disciplined
- Ability to work unsupervised and under pressure
- FIRM PRE-REQUISITE is taken into consideration

KEY DUTIES AND RESPONSIBILITIES

SalesActivityRes:

- Attend to walk in and phone in customers promptly and efficiently.
- Invite all customers to make use of demonstration drive.
- Establish a call scheduling system.
- Calling prospective customers daily.
- Follow-up existing customers according to their company's schedule and develop a "spotters" network.

Customer Care:

- Ensure customer has been introduced to all accessories and services, e.g. Warranty, insurance.
- Ensure correct handover procedure after the vehicle is correctly prepared.
- Explain all aspects of the vehicle at delivery.
- Ensure customer is totally satisfied with the vehicle and explain service, warranty, requirements.

Administration

- Complete all documentation in full according to company procedures.
- Handtrade-in papers and vehicle to Used Vehicle Manager personally.
- Maintain accurate records of all transactions and collect all monies due to the company upon delivery of the vehicle.
- Ensure demonstrator / company car is kept in showroom condition.

Product, business and selling skills knowledge

- Attend all training courses as required by management.
- Keep abreast of all motor industry trends by reading and self-study.
- Attend all sales meetings and product/business updates.
- Maintain professional appearance and behaviour at all times and know all products available including supplementary items.

If you are interested in this position and meet the minimum requirements, please apply by submitting your detailed CV to:

Contact person: JP Botha
E-mail: jbotha@da.com.br

Kindly submit your CV on/before : 29TH September 2023

Full page advert (VrystaatKroon, 06 September 2023)

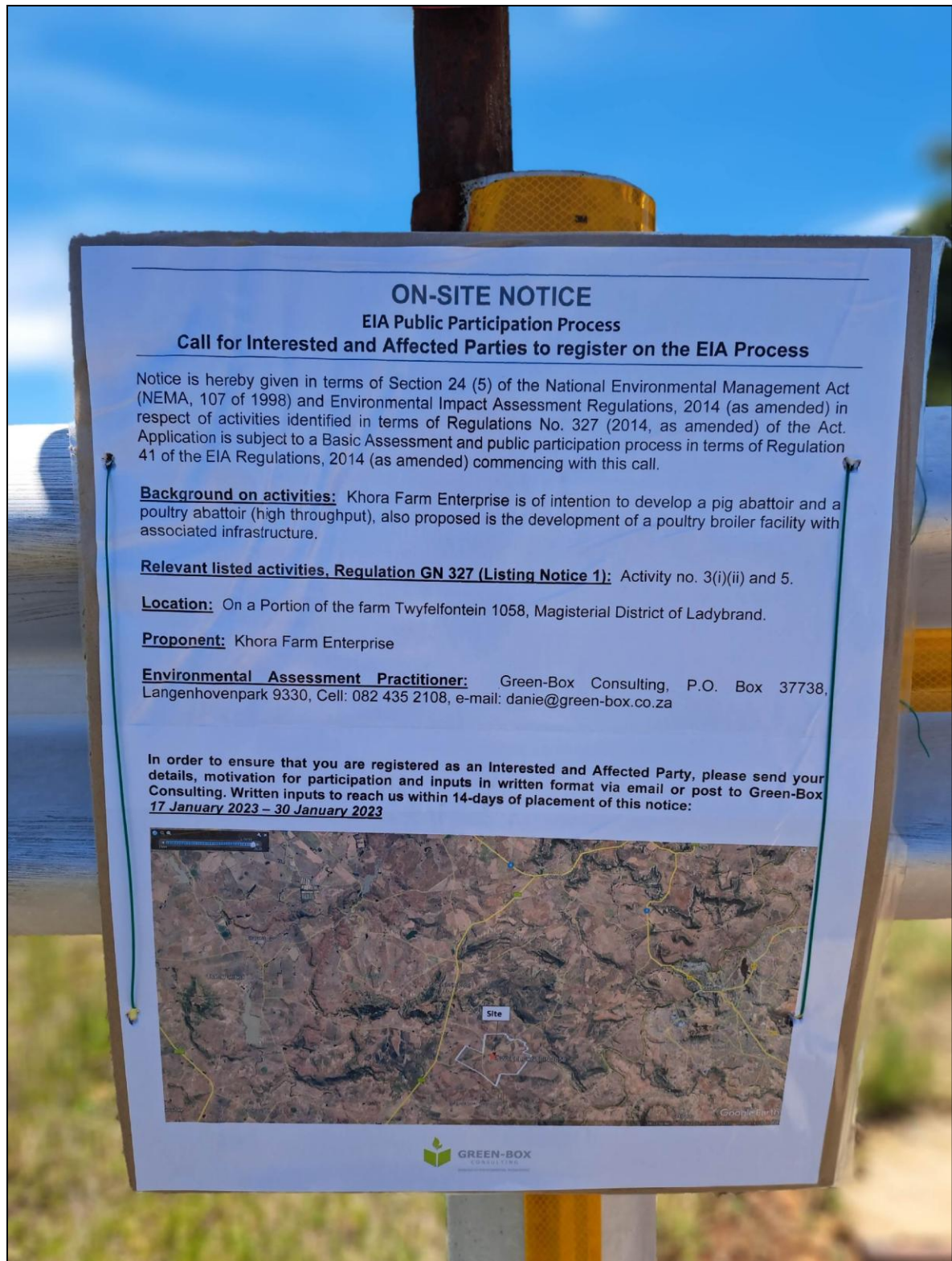
2. Site notices:



Site notice 1: Placed at 29°22'8.34"S; 27°18'58.25"E



Site notice 1: Placed at 29°22'8.34"S; 27°18'58.25"E



Site Notice 2: Placed at 29°22'48.14"S; 27°18'36.91"E



Site Notice 2: Placed at 29°22'48.14"S; 27°18'36.91"E

3. Organ of State

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	e-mail
Department of Water and Sanitation: Free State	Mr N. Musekene	051 405 9000	MusekeneN2@dws.gov.za ; NtitiT@dws.gov.za ; KumaloZ@dws.gov.za ; MaseloaneK@dws.gov.za ; Mahlael@dws.gov.za ; LetloenyaneM@dws.gov.za LenongP@dws.gov.za
Free State Agriculture and Rural Development: State Vet Services (Ladybrand)	Dr T. Lerotholi (Animal Health & Disease Control: Ladybrand)	0660253108	lerotholit@yahoo.co.uk
Mantsopa Local Municipality: Municipal Manager	Ms MRE Mogopodi	0828822763	dirmogopodi@gmail.com
Thabo Mofutsanyana District Municipality: Municipal Manager	Ms. Takatso Lebenya	058 718 1036	takatso@tmdm.gov.za Mamogolo@tmdm.gov.za
Free State Heritage Resources Authority	Miss Ntando PZ Mbatha	066 479 2067	mbatha@heritagefreestate.co.za

4. Key Stakeholders

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
South African Pork Producers Organisation	Association	012 100 3035
SA Poultry	Association	reception@sapoultry.co.za

Appendix F: Impact Assessment

ALTERNATIVE A1 (PREFERRED ALTERNATIVE)			
CONSTRUCTION PHASE			
Potential impacts	Significance rating & status of impacts	Consequence	Probability
Direct impacts:			
Loss or destruction of fertile topsoil, due to poor planning of facility placement.	Low- Negative	Substantial	Very Unlikely
Soil erosion due to the improper placement of the facility and lack of storm water management structures of the broiler units	Low- Negative	Substantial	Very Unlikely
Loss of vegetation from clearing of vegetation and increase in vehicle and human activity	Low- Negative	Moderate	Likely
Environmental contamination from building rubble, chemical leaks, spills and emissions, human excrement, and litter	Low- Negative	Substantial	Very unlikely
Emissions from construction vehicles and generation of dust as result of earthworks, demolition, as well as the delivery and mixing of construction materials.	Low- Negative	Moderate	Very unlikely
Potential visual intrusion of Construction/demolition activities on the views of sensitive visual receptors.	Low- Negative	Moderate	Very unlikely
Noise generation from demolition and construction work (e.g. grinding and use of angle grinders), as well as from the removal of waste material.	Low- Negative	Moderate	Likely
ALTERNATIVE A1 (PREFERRED ALTERNATIVE)			
OPERATIONAL PHASE			
Potential impacts	Significance rating & status of impacts	Consequence	Probability
Direct impacts:			
Poor/Inappropriate control of invertebrate pests such as flies, ants, termites, cockroaches, fleas, lice, mites.	Moderate- Negative	Severe	Unlikely
Environmental contamination from chicken excrement, carcasses and feed, and other operational waste	Moderate- Negative	Severe	Unlikely
Poor/Inappropriate control of vertebrate pests such as rodents, snake's mammalian, and carnivores.	Moderate- Negative	Severe	Unlikely
Impacts of increased odours resulting from the broiler units. And emissions from staff vehicles.	Moderate- Negative	Severe	Unlikely
Potential visual intrusion of structures and buildings associated with the proposed development on existing views.	Low - Negative	Moderate	Very Unlikely
Potential noise impact from operations and road transport of products during the operational phase.	Low - Negative	Moderate	Likely

Land contamination as a result of storage of chicken waste on the proposed waste storage facility	Low - Negative	Moderate	Unlikely
Decrease in fauna and flora due to increased foot traffic during operations of the broiler units development.	Low- Negative	Moderate	Unlikely
Impact of extra operational vehicles on the road network of the area.	Low- Negative	Moderate	Likely
Reduction of water availability because of increased abstraction from ground and surface water resources.	Low- Negative	Moderate	Unlikely
Increased job opportunities and boosting of local economic development in the area.	Medium- Positive	Substantial	Likely
Secondary industries may benefit from the proposed broiler units	Low –Positive	Moderate	Likely

ALTERNATIVE A1 (PREFERRED ALTERNATIVE)			
DECOMMISSIONING AND CLOSURE PHASE			
Potential Impacts	Significance rating & status of impacts	Consequence	Probability
Direct Impacts:			
1. Environmental Contamination from building rubble, chicken excrement, carcasses and feed, other operational waste and chemical leaks.	Moderate- negative	Severe	Unlikely
2. Emissions from decommissioning vehicles and generation of dust as a result of earthworks and demolition.	Low- Negative	Moderate	Likely
3. Potential visual intrusion of decommissioning activities on the existing natural environment.	Low-Negative	Moderate	Unlikely
4. Noise generation from demolition activities during the decommissioning phase.	Moderate- Negative	Substantial	Likely
5. Loss of jobs and income for workers.	Moderate- Negative	Substantial	Likely

Appendix G: Environmental Management Programme (EMPr)

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

**Proposed Pig & Poultry Abattoir, Piggery, Poultry Layerhouses and Poultry Broiler Facility on the Farm
Twyfelfontein 1058, Mantsopa Local Municipality, Free State.**

Environmental Management Programme

For

Khora Farm Enterprise

Report Prepared by Green-Box Consulting



August 2026

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPRR)

1. INTRODUCTION

Green-Box Consulting has been appointed by Khora Farm Enterprise to commence with the environmental assessment and authorisation process for the Proposed Pig & Poultry Abattoir, Piggery, Poultry Layer houses and Poultry Broiler Facility on the Farm Twyfelfontein 1058, Mantsopa Local Municipality, Free State

Site midpoint co-ordinates are 29°22'33.41"S; 27°19'0.22"E.

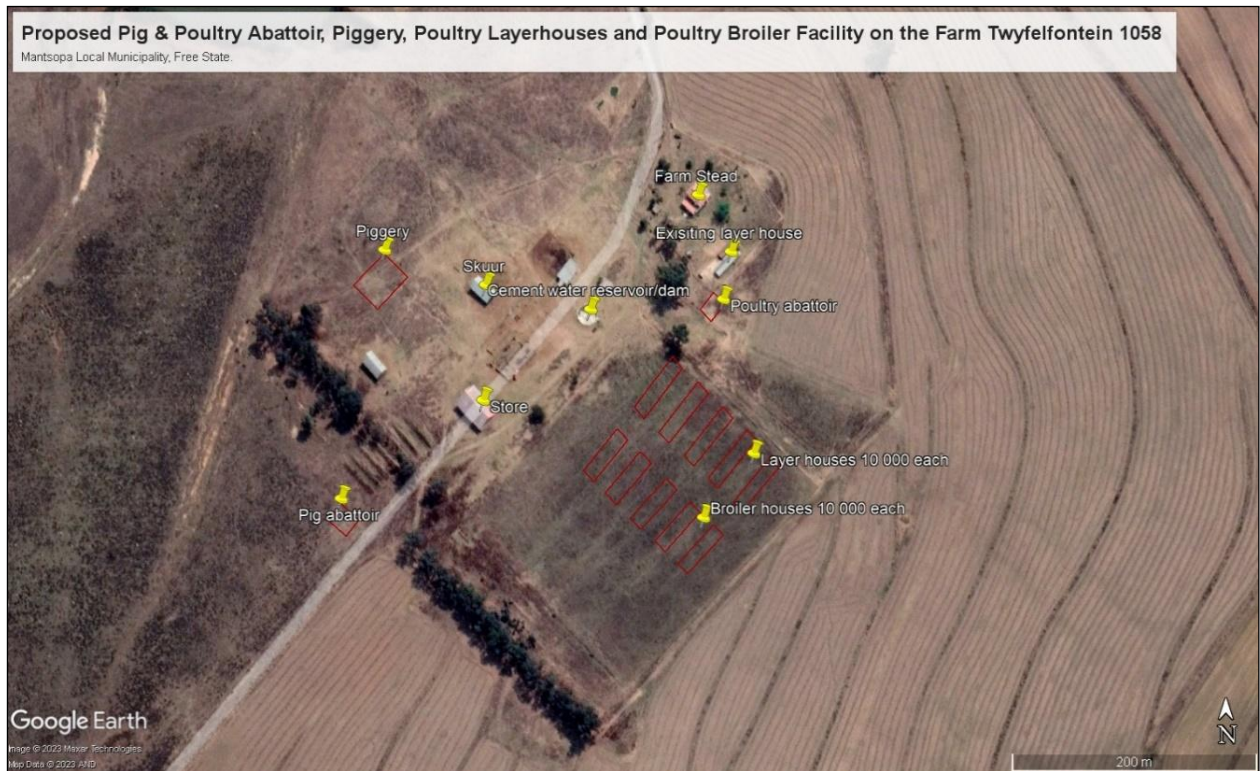


Figure 1: Site Map (Google Earth Pro, 2023)

The proposed development includes:

- Construction and operation of five layer houses consisting of 10 000 chickens per unit
- Construction and operation of five broiler houses consisting of 10 000 chickens per unit
- Construction and operation of a pig abattoir (for own pigs)
- Construction and operation of a poultry abattoir (10 000 poultry per week, bi-weekly)
- Construction and operation of a piggery consisting of 50 sows

2. AIM AND PURPOSE OF AN ENVIRONMENTAL MANAGEMENT PROGRAMME

The aim of this EMPRr is to identify and minimise, as far as possible, potential impacts that the development may have on the surrounding biophysical and socio-economic environment during the following phases:

- Construction;
- Operational.

The purpose of this EMPRr is to:

- Encourage good management practices and commitment to environmental issues;
- Define how the management of the environment is reported and performance evaluated;
- Provide rational and practical environmental guidelines to:

- Minimise disturbance of the natural environment;
 - Prevent or minimise all forms of pollution;
 - Comply with all applicable laws, regulations, standards and guidelines for the protection of the environment; and
 - Adopt the best practicable means available to prevent or minimise adverse environmental impacts.
- Describe all monitoring procedures required to identify impacts on the environment.

3 ENVIRONMENTAL COMPLIANCE

3.1 Responsibilities for environmental management

The Project Manager (PM), Property Owner (PO) will be responsible for environmental management on site during the construction and operational phases of the poultry broiler units. Surrounding land owners, residents or tenants will be notified in advance of any potentially disturbing activities during the project.

3.2 Training of Employees

The PO have a responsibility to ensure that all those people involved in the project are aware of and are familiar with the contents of this EMPR. This EMPR must form part of the Terms of Reference (ToR) for all Sub-contractors, Suppliers, Staff and Visitors. During the construction phase, the Contractor and his Sub-contractors have to give assurance that they understand the EMPR and that they comply with the conditions therein. All senior and supervisory staff members must familiarise themselves with the full contents of this EMPR. They must know and understand specifications of the EMPR and be able to assist other staff members in matters relating to the EMPR. During the operational phase, the PM, as well as the PO and all senior and supervisory staff members, must understand and comply fully with the contents of this EMPR. In addition, all other site personnel must be educated in the contents of this document. Before commencing with any work, all staff members will be appropriately briefed about the EMPR and relevant occupational health and safety issues.

3.3 Complaints Register and Environmental Incident Book

All complaints received will be investigated and a response (even if pending further investigation) will be given to the complainant within seven working days. All environmental incidents occurring on site will be recorded. The following information for each incident will be recorded:

- Time, date, location and nature of the incident; and
- Actions taken and by whom.

Any complaints received from the community during the lifetime of the project will be registered and recorded by the PO and / or PM on site. The following information will be recorded:

- Time, date and nature of the complaint;
- Response and investigation undertaken; and
- Actions taken and by whom.

3.4 Environmental Monitoring

Environmental monitoring of the construction and operational phases of the development will be undertaken by the PO. Monitoring will be undertaken to ensure compliance with all aspects of the EMPR. In order to facilitate communication between the PO and senior and supervisory staff members, it is important that a suitable chain of communication is structured that will ensure that the PO recommendations have the full backing of the project team before being conveyed to the necessary person. In this way, penalties as a result of non-compliances with the EMPR may be justified as failure to comply with the EMPR. The Department of Environmental Affairs is the overriding authority regarding environmental compliance for this project.

3.5 Non-Compliance with the EMPR

Difficulties may be encountered with carrying out mitigation measures that could result in future non-compliance. The PO and / or PM shall put in place procedures to motivate staff members to comply with this EMPR, and to deal with

acts of non-compliance, or malicious damage to the environment. Penalties for non-compliance will be discussed with the PO and / or PM at the earliest stage.

4 LEGISLATIVE FRAMEWORKS

4.1 The Constitution of the Republic of South Africa Act (Act 108 of 1996)

The Constitution of the Republic of South Africa is the legal source of all law, including environmental law, in South Africa. The Bill of Rights is fundamental to the Constitution of the Republic of South Africa and in, Section 24 states that:

Everyone has the right (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that (1) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use natural resources while promoting justifiable economic and social development.

4.2 National Environmental Management Act (Act 107 of 1998)

The National Environmental Management Act is South Africa's overarching environmental legislation and has, as its primary objective to provide for co-operative governance by establishing principles for decision making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state and to provide for matters connected therewith (Government Gazette, 1989). The Act provides for the right to an environment that is not harmful to the health and well-being of South African citizens; the equitable distribution of natural resources, sustainable development, environmental protection and the formulation of environmental management frameworks (Government Gazette, 1998). In terms of Section 28 (1) of the NEMA:

"(1) Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment. (2)"

4.3 Environment Conservation Act, 1989 (ECA)

A major part of the regulations contained in the Environmental Conservation Act (ECA) have been repealed and replaced by NEMA. However, regulations pertaining to noise pollution are still applicable and these are mainly set out and implemented by the provincial government.

4.4 National Environmental Management: Waste Act (NEMWA) 2008 (No. 59 of 2008)

Although this project activity does not require a Waste Management Licence under the NEMWA, its underlying principles will still apply.

4.5 National Waste Management Strategy

The major objective of the strategy is to establish a waste hierarchy underpinned by integrated waste management planning. The strategy further alludes to sustainable development under the following goals and objectives:

- Achieving integrated waste management planning;
- Avoiding and minimising the generation of waste;
- Promoting and ensuring the effective delivery of waste services;
- Reducing, re-using, recycling and recovering waste;
- Treating and safely disposing of waste as a last resort; and
- Remediating land where contamination presents a significant risk of harm to health or the environment.

4.6 Sustainable Development

The principle of Sustainable Development has been established in the Constitution of the Republic of South Africa (108 Of 1996) and given effect by NEMA Section 1 ("() of NEMA states that:

"(29) Sustainable development means the integration of social, economic and environmental factors into the planning, implementation and decision-making process so as to ensure that development serves present and future

generations". Similarly, the guiding principle established in Section 2 (3) of NEMA state that: "2(3) Development must be socially, environmentally and economically sustainable. (4)(a) Sustainable development requires the consideration of all relevant factors including the following: (i) that the disturbance of ecosystems and loss of biological diversity are avoided, or where they cannot be altogether avoided, or where they can to be altogether avoided, are minimised and remedied... (vii) that negative impacts on the environment and on peoples environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied".

Thus, Sustainable Development requires that there is An integration of social, environmental and developmental concerns and that greater attention to each of these aspects of development will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future (United Nations Department of Economic and Social Affairs, Division of Sustainable Development, 1992).

Construction phase

The intention, of providing an EMPR for the construction phase, is merely to provide Management with guidelines to be used in the construction of the facility with its associated infrastructure, to safeguard the environment against negative environmental impacts.

Table: Specific Environmental Specifications for the construction of broiler units.					
Construction Phase					
<u>Activity</u>	<u>Possible impact</u>	<u>Mitigation measures</u>	<u>Performance indicators</u>	<u>Responsibility</u>	<u>Timing</u>
Construction activities	Storm water contamination by construction activities.	Objective: To prevent storm water damage, the increase in storm water run-off resulting from construction activities must be estimated and the drainage system assessed accordingly.	Contamination of storm water runoff.	Contractor/Client	Throughout the construction phase
	Contamination of surface water bodies.	Objective: Untreated run-off from the construction site must not be discharged into natural streams or adjacent properties.	Contamination of surface water bodies.	Contractor/Client	Throughout construction phases
	Pollution by construction waste material	Objective: The operator must identify disposal sites for the various categories of waste likely to be generated on site and must provide documented proof of the type and volume of waste disposed of at these sites.	Appropriate management of wastes on all work sites, and No complaints from I&APs	Contractor/Client	Throughout construction phases

<u>Activity</u>	<u>Possible impact</u>	<u>Mitigation measures</u>	<u>Performance indicators</u>	<u>Responsibility</u>	<u>Timing</u>
Construction activities	Pollution of construction site area and its surroundings	Objective: An adequate number of self-contained chemical toilets must be available for the workforce (1 toilet per 20 workers). The contractor must supply toilet paper at all toilets, and will be responsible for their maintenance and servicing.	No urinating, etc in the veld.	Contractor/Client	Throughout construction phase
	Soil erosion	Objective: Site clearing activities should only be conducted immediately prior to construction, to reduce the amount of time topsoil is exposed, and thus the potential for erosion.	No soil erosion	Contractor/Client	Site clearance prior to construction
	Visual impacts	Objective: The site is to be kept clean at all times to minimise the visual impacts of the site.	No littering	Contractor/Client	Throughout construction phase.

<u>Activity</u>	<u>Possible impact</u>	<u>Mitigation measures</u>	<u>Performance indicators</u>	<u>Responsibility</u>	<u>Timing</u>
Communication with I&APs	Misinformed I&APs	Objective: Selected staff are to be made available for formal consultation with I&APs in order to: • Explain the construction process; and • To answer any questions.	Informed I&APs	Contractor/Client	Throughout construction phase

Operational phase

The intention, of providing an EMPR for the operational phase, is merely to provide Management with guidelines to be used in the management of the proposed development, to safeguard the environment against negative environmental impacts.

Table: Specific Environmental Specifications for the operation of broiler units.					
Operational Phase					
<u>Activity</u>	<u>Possible impact</u>	<u>Mitigation measures</u>	<u>Performance indicators</u>	<u>Responsibility</u>	<u>Timing</u>
Notifying authorities of commencement of activities	Authorities not aware of activities on site	Objective: To ensure authorities are aware of commencement of project ○ Inform authorities in writing	Authorities advised of intention to start work	Client	One week prior to site establishment

<u>Activity</u>	<u>Possible impact</u>	<u>Mitigation measures</u>	<u>Performance indicators</u>	<u>Responsibility</u>	<u>Timing</u>
Operation of proposed facility	Contamination of storm water runoff with suspended solids	Objective: contain solids and materials within defined areas and prevent contamination of storm water runoff by: ○ Disposal of waste material at appropriate waste disposal site, ○ Construct a dedicated waste water (grey water) channel with a solids trap to manage facility rinsing water	Contamination of storm water runoff	Contractor Client	Throughout operational phases
	Pollution by waste material	Objective: to avoid pollution of the environment with waste streams by: ○ Provide adequate waste bins, ○ Set up system for regular waste removal and disposal from work site, and ○ Minimize waste by sorting wastes into recyclable and non-recyclable wastes.	Appropriate management of wastes on all work sites, and No complaints from I&APs	Contractor Client	Throughout operational phase

<u>Activity</u>	<u>Possible impact</u>	<u>Mitigation measures</u>	<u>Performance indicators</u>	<u>Responsibility</u>	<u>Timing</u>
Operation of proposed facility	Preventing suitable conditions for flies to breed.	Objective: to protect the environment from disease-carrying pests by: ○ No uncontained storage of mortalities (dead chicken)	Minimal flies	Client	Throughout operational phase
	Waste management	Objective: to prevent solid waste from accumulating by: ○ Regular removal of waste. ○ Chicken waste (manure) is properly treated in wind rows digester. ○ Register the facility with the provincial state veterinary services.	No solid waste stored for long periods on the property, and No smells; No complaints from I & APs	Client	Continuous
	Unpleasant smell from animal waste.	Objective: to prevent any unpleasant smells: ○ Clearing or treating animal waste daily. ○ Clean the facility after waste is removed.	No unpleasant smells, and No complaints from any I & APs.	Client	Throughout operational phase.

<u>Activity</u>	<u>Possible impact</u>	<u>Mitigation measures</u>	<u>Performance indicators</u>	<u>Responsibility</u>	<u>Timing</u>
Operation of the facility	Potential Fire Outbreaks	Objective: to prevent fire outbreaks: ○ Ensure adequate emergency equipment (e.g. fire extinguishers) is available. ○ Ensure that all Employees involved have received adequate training with regards to the handling of fires. ○ Notify the local fire department of activity.	No fire outbreaks	Client	Throughout operational phase

Appendix H: Details of EAP and expertise.

DETAILS OF PERSON PREPAIRING THE BAR AND EMP

REPORT PREPARED BY: Danie Krynauw and Charissa Worthmann

CONTACT DETAILS: Email: danie@green-box.co.za
Email: charissa@green-box.co.za

ENVIRONMENTAL CONSULTING COMPANY: Green Box Consulting
P.O. Box 37738
Langenhovenpark
Tel: 083 412 1705 / 082 435 2108

QUALIFICATIONS OF EAPs: Danie Krynauw has a master's degree in Town and Regional Planning (UFS) and completing his dissertation to obtain a master's degree in Environmental Management (UFS). D. Krynauw has over 24 years' experience in the environmental management field. He is registered with EAPASA (2019/1348) and is a member of the International Association of Impact Assessments South Africa.

CURRICULUM VITAE – DANIE KRYNAUW

1. Family name: Krynauw
2. First name: Daniël
3. Date of birth: 14/12/1971
4. Nationality: South African
5. Contacts: Cell: 082 435 2108
Email: danie@green-box.co.za

6. Education:

Institution	Degree(s) or Diploma(s) obtained
University of the Free State 2001 – 2002	Master in Environmental Management – Dissertation pending
University of the Free State 1996 – 1998	Masters in Urban and Regional Planning
University of the Free State 1993 – 1995	BA Geography and Sociology

7. Membership of professional bodies:

- EAPASA – 2019/1348
- International Association of Impact Assessment South Africa (IAIAsa)

8. Present position:

- Environmental Scientist / Director – Green-Box Consulting

9. Current Responsibilities:

- Liaising with clients in both the private and public sectors.
- Conduct Environmental Impact Assessments and other Environmental Technical Investigations.
- Apply and obtain waste licenses, water licenses, mining permits and environmental authorisations for clients.
- Use different GIS datasets in order to create new information or investigate patterns for projects.
- Conduct environmental compliance and other environmental audits.
- Provide technical-level support for environmental remediation and mitigation projects, including remediation system design and determination of regulatory applicability for incoming projects.
- Collaborate with other environmental scientists, planners, engineers, and other specialists, and experts in law and business etc. to address environmental problems for clients.
- Conduct Environmental training.

10. Years within the organization:

- 14 years

11. Other skills (e.g. computer literacy, etc.):

- All suits of Microsoft Office, Arc View, ReGIS, and Project Professional.

12. Professional experience:

Date	2011 – Current
Organisation	Green-Box Consulting (Environmental Consultants)
Position	Environmental Scientist (Owner and Director)

Date	2009 – 2016
Organisation	Terra Works Environmental Consultants
Position	Senior Environmental Scientist and COO

Date	2001 – 2009
Organisation	Department of Economic Development, Tourism and Environmental Affairs, Free State
Position	Principal Environmental Officer
Description of duties	• Review Environmental Impact Assessments • Review Environmental Management Programmes • Issuing Environmental Authorisations

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

1. DFFE Screening Tool Report