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Final Basic Assessment Report for Environmental Authorisation for The Expansion of the Du Plessis Familie Trust's Broiler Facility on the RE of Farm Fransina 2060, Free State Province

Farm Name: RE of Farm Fransina 2060

Client: Du Plessis Familie Trust



March 2023

Compiled by: Environmental Management Group

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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 **13 February 2020**. 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 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.

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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? YES
 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

Environmental Management Group (EMG) is facilitating the Environmental Authorization application on behalf of the Du Plessis Familie Trust (applicant) for the proposed broiler expansion facility.

The proposed development is located approximately 14 km South-West of Botshabelo on the RE of Farm Fransina 2060, Free State Province. This area falls within the jurisdictional control of the Mangaung Metropolitan Municipality. The applicant intends to expand their existing poultry production facility by developing two additional broiler sites. Each broiler site features a similar design to the existing poultry production infrastructure situated on the farm and constitutes four broiler houses. See the map below for visual reference.



Figure: Layout map indicating the two proposed expansion sites in relationship to the existing infrastructure

Each broiler house will have a potential production space of 1845m² (15 m wide and 123 m long). In full

capacity, a broiler house will have the production potential of rearing 40 000 broilers during a cycle. Considering the proposed expansion constitutes eight new broiler houses (four per site), the two new broiler sites will increase the proponent's production by 320 000 broilers per cycle. The total development footprint for the eight (4 per site) broiler houses is 14760 m². The physical clearance will, however, be slightly larger than the actual footprint. Activities which accumulate to additional clearance include soil levelling, space between broiler houses (+/- 12 m) and the laydown of a small access road around the broiler sites. The proposed development is considered to result in a total clearance of less than 4 ha (2 ha per site). See below conceptual drawings of the proposed development.

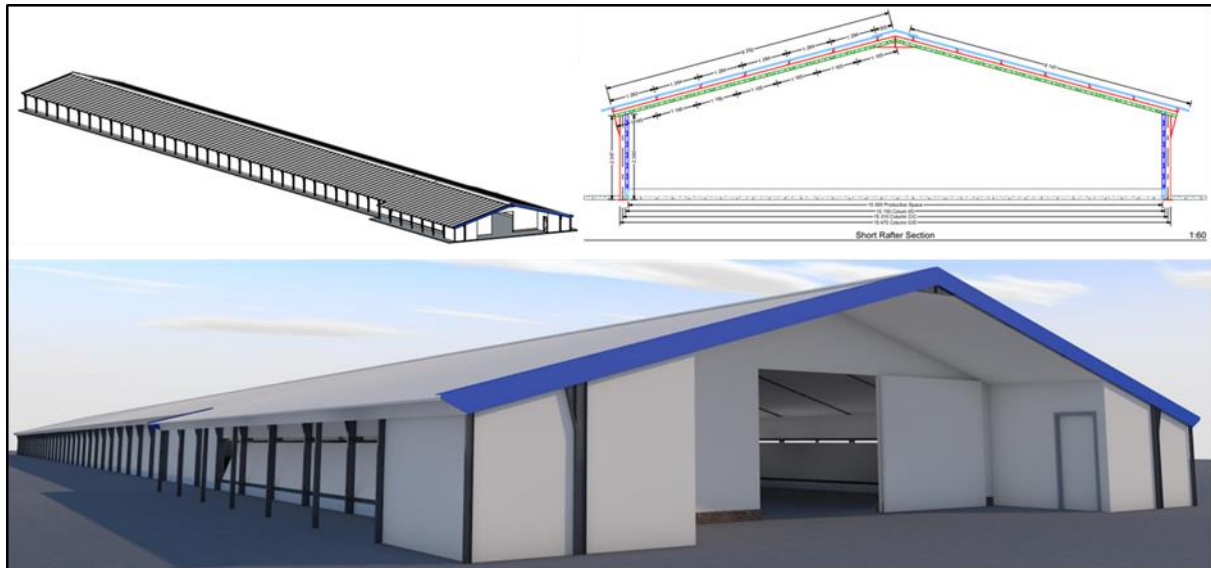


Figure: Concept illustrations of the proposed broiler houses

Production cycles are crucial for the healthy operation of a commercial broiler operation. The proponent's production plan is stretched over a 45-day cycle. The process starts with the introduction of new broilers. Each house will be equipped with industry-standard water supply, feed supply and ventilation technology. Broilers are reared in the poultry houses for +/- 30 days. During this period, the broilers increase in weight until they are ready for sale. Following the sale of broilers, each house is cleaned and left to air out. This process is anticipated to last about 15 days. Inspections for disease, mortalities, and equipment operations are routinely performed. Mortalities are removed daily, temporarily stored in cooling rooms and delivered to a lion farm.

Manure management:

Based on previous studies, it is estimated that broiler facilities produce around 560 kg dry manure per 40 000 birds per day (Gerry, 1967). Following a 30-day rearing period, each broiler house is estimated to produce around 12 432 kg of dry manure. The proponent's manure management plan is based on preventing environmental pollution. After each production cycle, the manure is mechanically removed from the broiler houses and directly transported to a buyer. By employing this strategy, the manure is not stored in the facility, preventing the unnecessary risk of environmental pollution.

Following the mechanical removal of manure, the broiler houses are sprayed clean. A biodegradable cleaning solution is mixed into the wash water, killing off bacteria and disinfecting the facility. This wash water will freely flow from the facility floor into gutters. Here the water will be directed into a collection

sump; where after, it will be directly removed from the site to a wastewater treatment facility.

Water management:

The proposed poultry houses will utilise water from Bloemwater for both drinking and cleaning purposes. A water access point on Farm Helderpoort No. 907, a nearby farm which the proponent also owns will be used for water provision. Kindly see attached at Appendix J a Bloemwater registration form authorising the proponent to use the mentioned water access point. Water usage for cleaning is estimated at 9000 L per broiler house. As previously mentioned, the facility's cleaning will commence at the end of a rearing cycle. It's anticipated that the facility will undergo ten rearing cycles per year. This equates to an average water use of 720 cubes per annum for all eight facilities (cleaning purposes).

The successful operation of a poultry operation requires the provision of clean drinking water. Based on the information provided by the proponent, each broiler house requires roughly 214 cubes of drinking water per production cycle. Multiplied for all eight broiler houses' annual use, the proposed development requires a total of 6000 cubes clean drinking water per year.

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
<p>Example: GN 327 Item xx xx): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river</p>
<p>NEMA (Act 107 of 1998) Listing Notice 1 (NO. 327, 07 APRIL 2017) Activity 27: "The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation"</p>	<p>The total development footprint for the eight (4 per site) broiler houses is 14760 m². The physical clearance will, however, be slightly larger than the actual footprint. Activities which accumulate to additional clearance include soil levelling, space between broiler houses (+- 12 m) and the laydown of a small access road around the broiler sites. The proposed development is considered to result in a total clearance of less than 4 ha (2 ha per site).</p>
<p>NEMA (Act 107 of 1998) Listing Notice 1 (NO. 327, 07 APRIL 2017) Activity 40: "The expansion and related operation of facilities</p>	<p>The proposed development constitutes the expansion of a broiler facility's production potential via the development of an additional</p>

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<p>for the concentration of poultry, excluding chicks younger than 20 days, where the capacity of the facility will be increased by— (ii) more than 5 000 poultry per facility situated outside an urban area.”</p>	<p>eight (4 per site) broiler houses. Each broiler house has a total production potential of rearing 40 000 birds. The total production potential for all eight houses combined are 320 000 per cycle.</p>
<p>NEMA (Act 107 of 1998) Listing Notice 3 (NO. 324, 07 APRIL 2017) Activity 12 : “The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. (b)- Situated in the Free State Province- (iv) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland. ”</p>	<p>As previously mentioned, the total development footprint for the eight (4 per site) broiler houses is 14760 m². The wetland delineation report is attached to the BAR and will provide details pertaining to the actual boundary of the wetland. Site two will be located within 100 m of a delineated wetland. See Appendix D for the wetland delineation report.</p>
<p>NEMA (Act 107 of 1998) Listing Notice 3 (NO. 324, 07 APRIL 2017) Activity 14: “The development of- (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs- (c) if no development setback has been adopted within 32 metres of a watercourse, measured from the edge of a watercourse, ... (b) situated in the Free State Province. (i) Outside urban areas: (bb) National Protected Area Expansion Strategy Focus Areas. (hh) Areas within 10 kilometres from national parks, or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; or”</p>	<p>The proposed broiler houses will have a physical footprint greater than 10 m², and is anticipated to be situated within 32 metres of a watercourse. The new broiler houses will be placed on the RE of Farm Fransina 2060, in the Free State Province. Here the development is located within a NPAES focus area and within 900 metres of the Rustfontein Nature Reserve.</p>

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;

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- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application 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 proposed development on the RE of Farm Fransina 2060 is the only viable site for development as the development will be located on the proponent's private property. The expansion of the proponent's poultry operations can only occur on the site where the existing poultry operations are located.	29°16'44.45"S	26°34'46.49"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
No other alternative sites can be identified as per the reasoning stated above.	29°16'44.45"S	26°34'46.49"E
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

*The broiler house development is not linear in nature

Alternative:

Alternative S1 (preferred)

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

Latitude (S):

Longitude (E):

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• End point of the activity		
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

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

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)
<p>The proposed new expansion chicken broiler houses have a similar design layout to the existing chicken broiler houses. Moreover, the design layouts of the new development ultimately favour the preferred location and will have the lowest overall environmental impacts:</p>	29° 16' 44.45\"S	26° 34' 46.49\"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>The second alternative was originally proposed by the applicant, but was rejected by the EAP as it presented a higher impact on the site's southern located watercourse system. See below the second alternative's layout overlaid by the wetland specialist's findings:</p>	29° 16' 48.44\" S	26° 34' 37.12\" E

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<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Layout map (2nd Alternative)</p> </div> <div style="width: 45%;"> <ul style="list-style-type: none"> RE of Fransina 2050 Drainage features NFEPA wetlands Final Development layout Perennial Zone Seasonal Zone Temporary Zone <p>Aquatic buffers</p> <ul style="list-style-type: none"> Seasonal Perennial Temporary </div> </div> <p style="font-size: 8px; margin-top: 10px;">Scale 1: 5 758 GPS: 29° 16' 48.39" S, 26° 34' 35.76" E</p> <p style="font-size: 8px; margin-top: 5px;">0 100 200 300 m</p>		
<p>Alternative 3</p>		
Description	Lat (DDMMSS)	Long (DDMMSS)

From the map presented above, its clear that the second alternative's layout would intrude into a temporary wet zone (blue) and will be situated within the seasonally wet zone's buffer area. Due to potential risks associated with this layout, the second alternative was rejected.

c) Technology alternatives

<p>Alternative 1 (preferred alternative)</p>
<p>As far as known and possible, new technology will be used in the construction and operational phases of this development and the design layouts of the development demonstrate the modern farming techniques that will be implemented that will increase the effectiveness and profitability of this development.</p>
<p>Alternative 2</p>
<p>No other technological alternatives were proposed as the proponent already employs industry standard farming practices. If any such alternatives arise prior to the submission of the Final BAR, it will be brought to attention and will be updated.</p>
<p>Alternative 3</p>

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

<p>Alternative 1 (preferred alternative)</p>
<p>This proposed development will perpetrate in limiting waste and effectively re-use and re-direct waste that is generated by the facility. The waste generated by the new development is estimated to be 560kg of dry manure per day. The manure will be mechanically removed from each site after each production cycle and directly transported to a buyer. The mortalities will be re-purposed and used as feed for lions at a nearby game farm.</p>

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Alternative 2
No other alternative was proposed. If any such alternative arise prior to the submission of the Final BAR, it will be brought to attention and will be updated.
Alternative 3

e) No-go alternative

If the no-go alternative is chosen as the preferred alternative, it is likely that the expansion of the broiler facility will not be approved and the development will not proceed. In this case, the following potential impacts could occur:

- The expansion of the broiler facility will not contribute to increased food production or food security in the region.
- No new jobs will be created in the construction and operational phases of the development.
- There will be no potential economic benefits to the local community through the creation of new jobs or increased business activity.
- There will be no potential technological advancements or innovations in the industry as a result of the development.

It is important to note that while the no-go alternative may result in the avoidance of certain negative impacts, such as environmental or health impacts, it may also result in the loss of potential positive impacts, such as increased food production and economic benefits to the local community.

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:

40000 m ²
N/A m ²
N/A m ²

or, for linear activities:

*The proposed development is not linear in nature.

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Length of the activity:

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

Alternative A3 (if any)

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

*** The development will not occur near any servitude.

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

Alternative A1 (preferred activity alternative)	14760 m ²
Alternative A2 (if any)	N/A m ²
Alternative A3 (if any)	N/A m ²

4. SITE ACCESS

Does ready access to the site exist?

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

N/A m

Describe the type of access road planned:

The proposed development is situated on RE of Farm Fransina 2060 and located approximately 14 km South-West of Botshabelo. The site is directly accessible from a T-Junction leading off from the N8 and passes left from Bloemwater dam. See the locality map (Appendix A).



Figure: View of the site entrance.

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.

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		Please explain
The proposed development is situated within an agricultural zone which makes it suitable for the location and will stimulate all the operations in the agricultural sector within the adjacent regions of Mangaung Metropolitan Municipality. The proposed development is also an expansion activity of the existing operations located on the site.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES		Please explain
According to the Provincial Spatial Development Framework, it is geared towards creating an efficient built environment in the province by promoting a compact city model, which is based on principles relating to settlement integration and densification, as well as optimization of services infrastructure. As mentioned above the proposed development is situated in an Agricultural zone that is characterized by both large and small-scale commercial agriculture as well as subsistence farming, which the development will be addressing the necessity of food security and poverty alleviation in the province.			
(b) Urban edge / Edge of Built environment for the area	YES		Please explain
The proposed development is situated 14km South-West of Botshabelo and outside the urban edge in an Agricultural zone. The Built Environment Performance Plan for the province has adopted several catalytic projects which are deemed to have the potential and will stimulate a significant impact on the built environment and ensuring real economic growth.			

<p>(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?).</p>	<p>YES</p>	<p>Please explain</p>
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According to the Mangaung SDF 2022/2027, the agricultural sector is one of the most important financial and socio-economic contributors to the district. Developments aligned with the SDF should therefore be considered favourable provided the environmental impacts can be adequately mitigated for. As per the Mangaung SDF spatial vision/ concept, the proposed development site falls within the agricultural vision area.

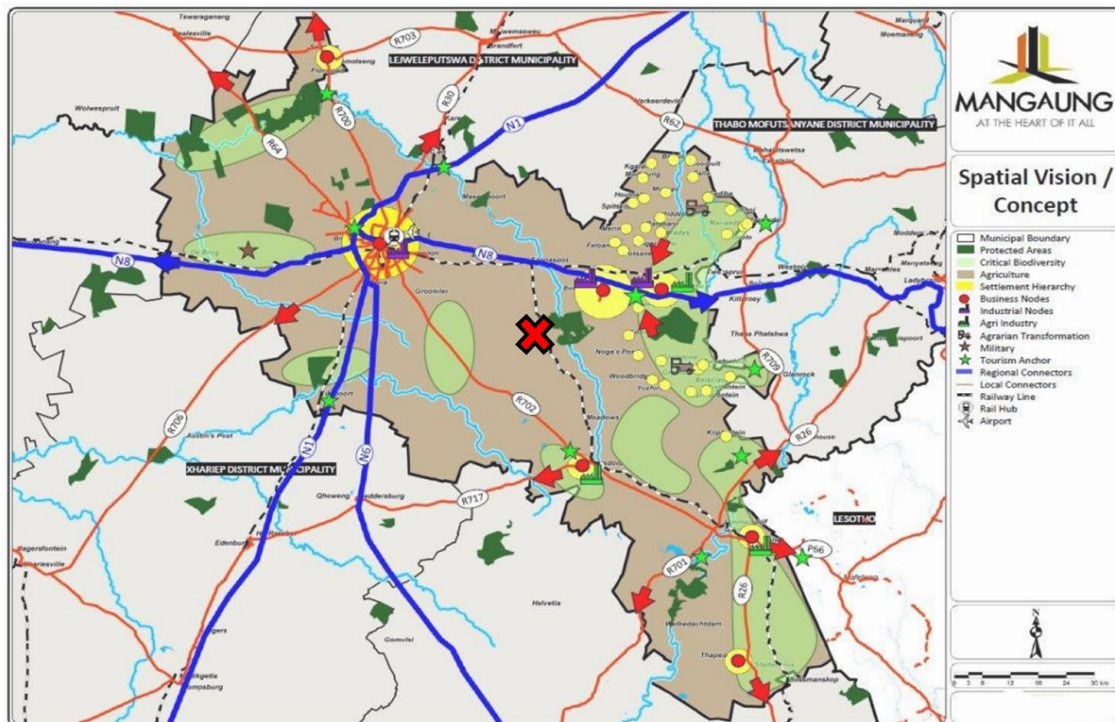


Figure: Mangaung SDF spatial vision concept depicting the site’s location (Red Cross) located within the agricultural vision area (Light Brown).

<p>(d) Approved Structure Plan of the Municipality</p> <p>The proposed development will be a private development and as such might not conform to the structure plan. However, its unlikely that this development will have any significant impacts thereon as the development will also be situated on private property located more than 14 km from the nearest urban area.</p>	<p>NO</p>	<p>Please explain</p>
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<p>(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?)</p>		NO	Please explain
<p>The EMP will form part of the BAR and will be implemented throughout the project. The approval of this application will not compromise the integrity of the existing environmental management priorities for the area.</p>			
<p>(f) Any other Plans (e.g. Guide Plan)</p>		NO	Please explain
<p>No other plans other than those already discussed will be affected.</p>			
<p>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)?</p>	YES		Please explain
<p>The proposed development facility will address key issues such as food security, poverty alleviation, and the unemployment rate in the Province/Municipality. The development falls within the timeframes intended by the existing approved SDF.</p>			
<p>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.)</p>	YES		Please explain
<p>The proposed development is the expansion of the currently existing facilities/chicken broiler houses and the development has a significant impact of providing temporal and permanent jobs for the people in the construction and operational phase. The activity will seek to address poverty within the jurisdiction of the Municipality, food security, and nutrition among the people.</p>			
<p>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.)</p>	YES		Please explain
<p>Municipal services and service delivery are adequately available for the proposed development which are generally basic needs, such as electricity (Eskom) and the development will utilize water from a water accesspoint provided by Bloemwater. See Appendix J for the water use registration at Bloemwater.</p>			

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<p>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.)</p>	<p>YES</p>		<p>Please explain</p>
<p>This proposed development is provided for in the infrastructure planning of the municipality</p>			
<p>7. Is this project part of a national programme to address an issue of national concern or importance?</p>	<p>YES</p>		<p>Please explain</p>
<p>Yes, this project responds to the national strategic plan to improve the agricultural sector in South Africa. This proposed development will play a valuable role in ensuring the sustainable supply of food to our growing population and will represent one of the main sources of revenue. The activity will result in job creation, both permanent and temporary, as well as address the concerns of food security in South Africa.</p>			
<p>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.)</p>	<p>YES</p>		<p>Please explain</p>
<p>The expansion of the Du Plessis Family Trust broiler facility on the farm RE Fransina 2060 is an agricultural activity. The proposed development is situated 14km South-West of Botshabelo and outside the urban edge in an agricultural zone that is characterized by both large and small-scale commercial agriculture as well as subsistence farming, which the development will be addressing the necessity of food security and poverty alleviation in the province which is in line with the SDF. The location therefore favours the proposed development.</p>			
<p>9. Is the development the best practicable environmental option for this land/site?</p>	<p>YES</p>		<p>Please explain</p>
<p>The expansion of the chicken broiler facility on the RE Farm Fransina will be an agricultural activity situated within an agricultural zone. The adjacent land use is in line with the land zone and is mainly characterized by both large and small-scale commercial agriculture as well as subsistence farming. The preferred development site for both sites are situated at about 2,25km and 3,80km away from the Rusfontein Nature Reserve and Bloemfontein Watersportklub, respectively. The mitigation measures proposed in the specialist studies and those indicated in the EMPr will drastically lower the overall environmental impact generated by the proposed development.</p>			

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10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES		Please explain
<p>All the negative impacts identified during the risk assessment and all those raised by the I&AP's will be addressed by implementing the recommended mitigation measures contained in this report, which will significantly eliminate the majority of the negative impacts associated with the proposed development. The positive impacts associated with the proposed development will only be beneficial to the local community in terms of quality skills, but it will also create permanent and temporary employment opportunities for the local residents and will set steps taken in an economic, sustainable food production and a humanitarian way for eradicating poverty within the Mangaung Metropolitan Municipality.</p>			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES		Please explain
<p>The expansion of the existing poultry facility might create a precedent for similar activities in the future. The impacts thereof is difficult to quantify. However, since the site is located within an agricultural zone similar agricultural activities are provided for.</p>			
12. Will any person's rights be negatively affected by the proposed activity/ies?		NO	Please explain
<p>All the negative impacts identified during the risk assessment, all those raised by the I&AP's and implementing the recommended mitigation measures contained in this report, no rights of the surrounding landowners nor the surrounding environment will be negatively affected.</p>			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?		NO	Please explain
<p>The proposed activity falls outside the urban edge in an area within agricultural zone.</p>			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?		NO	Please explain
<p>Not identified.</p>			
15. What will the benefits be to society in general and to the local communities?	Please explain		
<p>The proposed expansion development facilities will significantly have a positive impact to the local people. The development will produce numerous temporary and permanent employment opportunities for the lower-income community within the area and will improve the quality of life and livelihoods of the local people.</p>			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
<p>The proposed expansion development is situated in a land-use zone that is characterized by small and large-scale agricultural activities. The need and desirability of the proposed development will give effect to the mandate set by the municipal legislation as well as addressing the main concerns of food security in the local farming sector.</p>			

17. How does the project fit into the National Development Plan for 2030?	Please explain
<p>One of the key objectives of the proposed expansion development is that it will stimulate agricultural value chains and provide agricultural inputs in the agricultural sector. Agriculture has the potential to create close to 1 million new jobs by 2030, a significant contribution to the overall employment target. Therefore, the project fits into the National Development Plan. South Africa has strategies to achieve this by developing strategies that give new entrants access to product value chains</p> <p>The National Development Plan, sets national goals to which development interventions should be aligned, and is a critical document that relates to the proposed development. According to the 2030 objectives, poverty reduction and creation of jobs will significantly empower and improve livelihoods for the countries growth. In alignment to this plan, the proposed development seeks to empower local farmers, as a path towards stimulating the local economy of the Mangaung Metropolitan Municipality. This development is thus, aligned to the goals and vision of the National Development plan strategies of creating jobs and improving live hoods.</p>	

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

NEMA Section 23 requires the following general objectives:

(2) The general objective of integrated environmental management is to—

- a. Promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment;
- b. Identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2;
- c. Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them;
- d. Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment;
- e. Ensure the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment; and
- f. Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.

These are achieved as follows:

- a) Decision making based on the findings of the BAR process
- b) Impacts have been identified, predicted and evaluated in terms of environmental, socio-economic and cultural heritage environment. The risks, consequences and alternatives and options for mitigation have been evaluated.
- c) This BAR process and the EMP ensure that the effects of the activities on the environment receive adequate consideration before actions are taken in connection with them.
- d) There will have been adequate and appropriate opportunity for public participation that will lead to the decision being taken.
- e) Environmental attributes have been considered in management and decision making.
- f) The modes best suited to environmental management for this activity have been followed and recommended.

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

NEMA Section 2 requires:

(2) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.

This has been achieved as follows:

The environmental management relating to the expansion of the chicken broiler facility has been set up in such a way as to place the needs of people at the forefront of its concern while addressing the environmental issues concerning the construction of the layer facility. The facility has been designed to allow for addition of modules utilizing the same infrastructure which allows for true sustainable management.

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 (Act 107 of 1998)	The Application for the proposed expansion facility triggers activities listed under Notice No. R327 and 324, therefore a Basic Assessment Report will be submitted for Authorization from the Provincial Competent Authority.	DESTEA	April 2017
Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)	The National Heritage Resources Act legislates the necessity for cultural and heritage impact assessment in areas earmarked for development, which exceed 0.5 hectares (ha) and where linear developments exceed 300 metres in length. In this regard, the proposed development site will be subject to engagement with the South African Heritage Resources Agency (SAHRA). Potential impact on cultural heritage, paleontological or archaeological resources through excavation activities or disturbance will need to be monitored. Permits may be required per the National Heritage Resources Act (Act No. 25 of 1999).	South African Heritage Resources Agency (SAHRA)	1999
National Environmental Management: Waste Act (Act	The Waste Management Act seeks to promote the	DESTEA	2008

BASIC ASSESSMENT REPORT

No, of 59) as amended	protection of human health, giving an effect on how waste should be managed. This development will generate some waste products following a 30-day rearing period that each broiler house is estimated to produce around 12 432 kg of dry manure.		
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12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

YES	
-----	--

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

< 20 m ³

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

Construction debris needs to be removed from the site on a regular basis to the nearest registered landfill site.

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

Construction debris needs to be removed to the nearest registered landfill site.

Will the activity produce solid waste during its operational phase?

YES	
-----	--

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

+- 99,456m ³

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

It is estimated that broiler facilities produce around 560 kg dry manure per 40 000 birds per day (Gerry, 1967). Following a 30-day rearing period, each broiler house is estimated to produce around 12 432 kg of dry manure. The proponent's manure management plan is based on preventing environmental pollution. After each production cycle, the manure is mechanically removed from the broiler houses and directly transported to a buyer. By employing this strategy, the manure is not stored in the facility, preventing the unnecessary risk of environmental pollution. Following the mechanical removal of manure, the broiler houses are sprayed clean. A biodegradable cleaning solution is mixed into the wash water, killing off bacteria and disinfecting the facility. This wash water will freely flow from the facility floor into gutters. Here the water will be directed into a collection sump; where after, it will be directly removed from the site to a wastewater treatment facility

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

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It's not anticipated that the manure will be removed to a municipal landfill. General household waste is likely to be produced, however these will be in minor quantities associated with that of a small scaled agricultural business. These waste items should be removed from site to a registered landfill.

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

All solid waste are deemed to either be disposed of to a landfill site or in the case of manure waste it will be sold.

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? **NO**

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? **NO**

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? **NO**

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

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

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

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

If YES, provide the particulars of the facility:

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

BASIC ASSESSMENT REPORT

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

The proposed development of the poultry houses will utilize water from Bloemwater for both drinking and cleaning purposes. Water usage for cleaning is estimated at 9000 L per broiler house. As previously mentioned, the facility's cleaning will commence at the end of a rearing cycle. It's anticipated that the facility will undergo ten rearing cycles per year. This equates to an average water use of 720 cubes per annum for all 8 eight facilities (cleaning purposes). The facility will be cleaned with water and a biodegradable cleaning agent. The runoff will be collected via gutters into a sump whereafter it will be removed to a waste water treatment facility.

c) Emissions into the atmosphere

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

	NO
--	-----------

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

	NO
--	-----------

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:

Normal levels of air emissions related to the development's construction will be produced.

d) Waste permit

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

	NO
--	-----------

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?

	NO
--	-----------

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

	NO
--	-----------

Describe the noise in terms of type and level:

It is anticipated that in the construction phase, the construction of eight chicken broiler facilities will generate noise due to the mobility of trucks in and out of the site boundary and all of the construction operations. In the operational phase, normal related operations found on farms generated by either the equipment use or the livestock itself.

13. WATER USE

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

Municipal					
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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:

litres

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

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:

During the construction phase of the proposed development, the construction equipment and machinery that will be utilized is self-powered and some of the equipment does not require additional electricity as an energy source. The design layouts of the chicken broiler facilities are modern, energy efficient and use less energy with no other specified activities which require any additional energy.

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

With the Proponents design layouts and with all the operations of the activity, the proposed development will specifically focus on the energy efficiency and thus, no other alternatives have been proposed by the Proponent as of yet, with regards to the energy sources.

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): A (only one section)

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

- Has a specialist been consulted to assist with the completion of this section? YES
 If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed 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	Mangaung District Municipality
Local Municipality	Mangaung Metro Municipality
Ward Number(s)	17
Farm name and number	RE Fransina 2060
Portion number	0 (RE)
SG Code	F00300000000206000000

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:

Agricultural zone

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

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1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20 Chicken Broiler Facility – Site A	1:20 – 1:15 Chicken Broiler Facility – Site B	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S2 (if any):

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

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

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

2.1 Ridgeline <input type="checkbox"/>	2.4 Closed valley <input type="checkbox"/>	2.7 Undulating plain / low hills <input type="checkbox"/>
2.2 Plateau <input type="checkbox"/>	2.5 Open valley <input type="checkbox"/>	2.8 Dune <input type="checkbox"/>
2.3 Side slope of hill/mountain <input type="checkbox"/>	2.6 Plain <input type="checkbox"/>	2.9 Seafront <input checked="" type="checkbox"/>
2.10 At sea <input type="checkbox"/>		

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

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

4. GROUNDCOVER

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

Natural veld - good condition^E	Natural veld with scattered aliens^E	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		NO	
Non-Perennial River	YES		
Permanent Wetland	YES		
Seasonal Wetland	YES		
Artificial Wetland		NO	
Estuarine / Lagoonal wetland		NO	

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

The proposed poultry facility will be located near the Rustfontein Dam, near an existing poultry facility and freshwater systems. These freshwater systems, including a valley-bottom wetland system, may be affected by the development and will be the focus of the assessment. The wetland areas are small and seasonal, with diffuse flow occurring mainly during the rainy season. Soil samples indicate a perennial zone of wetness along the valley-bottom wetland. The wetland system at the site is largely intact but has been modified by surrounding land uses. A WET-Health determination was undertaken for the valley-bottom wetland system to assess its health and potential impacts from the proposed poultry facility. For more details see the attached wetland delineation report. Also see below an aquatic sensitivity map presenting the preferred alternative's layout in relationship with the mapped freshwater system.

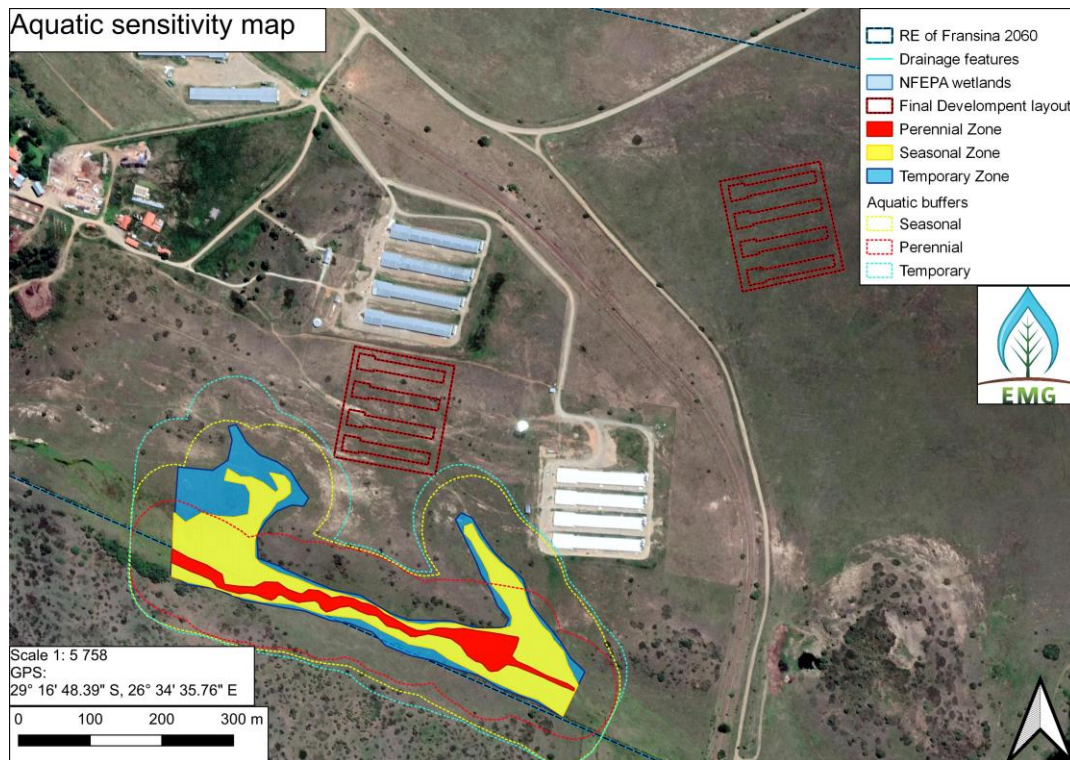


Figure: Aquatic sensitivity map indicating the proposed site layout in relationship to the mapped wetland system (soil wetness indicated with solid colours). A 61 meter buffer for each soil wetness classification was also given (dotted lines).

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

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Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential	Church	Agriculture
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:

A railway line crosses the owner's property. The owner has been in consultation with Transnet regarding their railway line for a while. Transnet will also be included as an I&AP. The proposed development is not anticipated to negatively affect the railway line.

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:

N/A

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:

N/A

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

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

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:

A Phase 1 Heritage Impact Assessment was conducted to assess the potential effects of establishing new chicken broiler facilities on Farm Fransina 2060. The assessment identified two development areas within an area with potential fossil-bearing sediments. Both sites were determined to be of very low archaeological significance and the potential for palaeontological impact at Site 1 was considered low, while the potential impact at Site 2 was considered moderate. It is recommended that the proposed development at both sites proceed, with the recommendation that for Site 2, certain excavations should preferably be monitored by a professional palaeontologist.

Will any building or structure older than 60 years be affected in any way?		NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?		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.

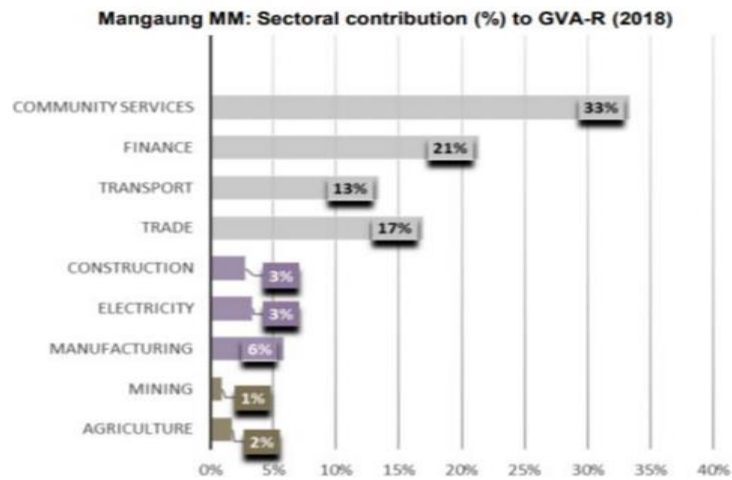
Level of unemployment:

In 2019, the Mangaung Metro. Municipality had a total number of 93 400 people that were unemployed, which is an increase of 24 200 from 69 200 in 2009. The current statistical unemployment rate in the Municipality is now sitting at 25.3%.

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Economic profile of local municipality:

In 2017, the economic status of Mangaung Metro. Municipality was driven by the tertiary sector with a share of 83.2%. The community service sector was the only sector that recorded a growth of 3.5% between 2008 and 2017. The downwards trends were recorded in the primary sector that fell from 3.7% in 2008 to 2.8% in 2017 because of the decline in the mining and agricultural sectors. The dominance of the tertiary sector is a sign of the need to broaden economic offerings.



Level of education:

Educational level

71.7%

Completed Grade 9 or higher

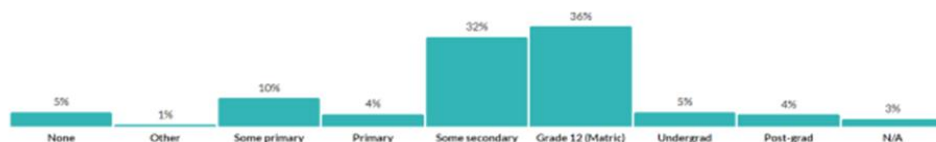
a little higher than the rate in Free State: 68.62%
about the same as the rate in South Africa: 71.77%

45.8%

Completed Matric or higher

about 20 percent higher than the rate in Free State: 39.69%
a little higher than the rate in South Africa: 43.37%

Population by highest educational level



b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	±R6 000 000
What is the expected yearly income that will be generated by or as a result of the activity?	±R20 000 000
Will the activity contribute to service infrastructure?	NO
Is the activity a public amenity?	NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	22
What is the expected value of the employment opportunities during the development and construction phase?	±R300 000
What percentage of this will accrue to previously disadvantaged individuals?	80%
How many permanent new employment opportunities will be created during the operational phase of the activity?	30
What is the expected current value of the employment opportunities during the first 10 years?	±R2 160 000
What percentage of this will accrue to previously disadvantaged individuals?	90%

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
				<p><i>According to the Technical Guidelines for CBA Maps Ecological Support Areas is an area that must retain its ecological processes in order to : meet biodiversity targets for ecological processes that have not been met in CBAs or protected areas; meet biodiversity targets for the representation of ecosystem types or species of special concern when it is not possible to meet them in CBA's; support ecological functioning of a protected area or CBA (e.g. protected area buffers); or a combination of these. The selection of the site primarily included within an ESA 1 area is likely due to the satellite view impression of a natural / semi natural grassland habitat with several waterbodies in the near vicinity.</i></p>
	Ecological Support Area (ESA)			

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	60%	The majority of the site may be described as a natural grassland with minimal disturbance. Existing infrastructure include a few farmworker houses and the already established and operational chicken houses. The rest of the natural environment is used as grazing fields for livestock.
Near Natural (includes areas with low to moderate level of alien invasive plants)	20%	These areas have experienced minimal disturbance and are situated near the existing infrastructure. Due to their proximity to disturbance causing factors, these areas have a slightly higher occurrence of exotic plant species and poorer ground cover.
Degraded (includes areas heavily invaded by	5%	These areas have been largely transformed due to small scaled cultivation and the existing infrastructure as mentioned above.

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alien plants)		
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	15%	These areas include environments that are entirely transformed due to the current infrastructure and its related operation (Chicken houses, roads and cultivation).

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 unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline			
	Endangered									
	Vulnerable									
	Least Threatened									
		YES	NO	UNSURE	YES	NO	YES	NO		

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)

the Central Free State Grassland vegetation type (Gh6). Gh6 is primarily distributed in the Free State Province, with some parts stretching into the Gauteng Province. Gh6 is widely distributed between Sasolburg in the north and Dewetsdorp in the South within the Free State Province. Gh6 is mainly found between 1400 and 1460 m a.s.l.

In a pristine condition, Gh6 is characterised by undulating plains which supports a short grassland usually dominated by *Themeda triandra*. The grasses *Eragrostis curvula* and *E. chloromelas* usually become dominant in degraded grasslands, whilst dwarf Karroid shrubs frequently establish in highly degraded lowlands (Mucina and Rutherford, 2006).

Sedimentary mudstones and sandstone, primarily from the Adelaide Subgroup, are distributed in the further northern section of Gh6, which gave rise to vertic, melanic and red soils typically of the Dc land type. Intrusive Jurassic dolerites are less common, but in areas that they do occur supports, dry clayey soils usually from the Ea land type (Mucina and Rutherford, 2006).

Gh6 is located within the summer rainfall region of South Africa and receives a mean annual precipitation of 560 mm. These rainfall events are usually convetual and are more frequent from December to January. Gh6 also frequently experiences frost (around 43 days on average).

The National Biodiversity Assessment Report indicates that Gh6 is a poorly protected vegetation type, with roughly 88% remaining in a natural condition. The NBA report also indicates that the Central Free State Grassland type has a threat status of least concern (Skowno et al., 2019).

The study area's overall vegetation composition matches that of the Central Free State Grassland. Overall, the site is considered to be in a natural/semi natural condition. Disturbances in the form of development, agricultural expansion and the localised dominance of exotics have slightly modified the environment. A small watercourse is located within 100 m of site two. Closer to this water body, the vegetation composition changes and features more facultative wetland species. Site two also presented several dolerite outcrops which hosted several xeric adapted flora. These outcrops are irregularly scattered near site two and was not observed near site one.

A prominent valley-bottom wetland system can be found approximately 100 meters south of the site, along with several seepage wetland areas that are immediately adjacent to the proposed site. These seepage areas drain the immediate area through diffuse flow and any impacts on surface water from the proposed poultry houses will also affect these wetland areas. Soil samples indicate that there is a perennial zone of wetness along the valley-bottom wetland where pools have formed, while the majority of the system is dominated by seasonally saturated wetland conditions. The valley-bottom wetland system is easily distinguished from the surrounding terrestrial areas due to its soils, vegetation, and topography. Additionally, there are two seepage areas located on the southern border of the proposed site. In these areas, although the soils have a high clay content, wetland indicators are not prominent. However, seasonal wetland areas are still present in the most prominent portions of the seepage wetland areas, while a temporary zone of wetness dominates the transition between the wetland and surrounding terrestrial areas. This confirms the presence of temporary wetland conditions within the seepage areas, as indicated by the species composition and topography.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Heilbron Herald	
Date published	10 th September 2021	
Site notice position	Latitude	Longitude
	27°32'46.17"S	27°46'43.84"E
	27°33'46.73"S	27°43'0.84"E
	27°32'27.28"S	27°46'8.07"E
Date placed	9 th September 2021	

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)
**Please refer to the Public Participation Report in Appendix E		

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
No issues of significant concern were raised during the PPP. Kindly see the attached Public Participation Report at Appendix E.	

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:

List of Stakeholders and I&AP's				
Department / Organisation	Contact Person	E-Mail Address	Address	Contact Nr
Department of Agriculture and Rural Development	Dr Masiteng Mr M Thabethe	pa.hodagric@fs.agric.za degracia@fs.agric.za	Gielie Joubert St, Glen, BFN, 9360	051 – 861 8509
Department of Agriculture Forestry and Fishery	Zilungile	zilungilem@daff.gov.za	Allied Building 3 rd Floor C/O Maitland & West Burger Street Bloemfontein, 9300	051 – 400 3517
Department of Water and Sanitation	Mr Vernon Blair Mr G Nel	blairV@dws.gov.za NelG@dws.gov.za	Private Bag 528 Bloemfontein 9300	051 – 405 9000 0828073552
MM Mangaung Metropolitan Municipality	<u>Tankiso Mea, Adv</u>	Lethole.Monyeke@mangaung.co.za	2 nd floor Bram Fisher Building, Nelson Mandela Drive and Markgraaf street, Bloemfontein, 9300	051 405 8621
HOC Mangaung Metropolitan Municipality	Mr Qondile Khedama	qondile.khedama@mangaung.co.za	2nd floor Bram Fisher Building, Nelson Mandela Drive and Markgraaf street, Bloemfontein, 9300	051 405 8976 082 788 5071
DESTEA	Mr N Collins	collinsn@destea.gov.za		
Transnet Chief Administrative Official	Nthabiseng Nkomo	nthabisengnkomo@transnetfr.eightrail-tfr.net	2 Transnet Rd, Linqinda, Bloemfontein 9300	051 – 408 2671
Ward Councillor				
Neighbour	Mr Wessel Scott	Wessel.scott41@gmail.com		082 448 3769
DESTEA - Reserve Manager	Gontse Sebetlele	sebetleleg@destea.gov.za		078 947 2673
Neighbour	Mr Coen Van Tonder	Dorancodexters@gmail.com		082 571 2818
Neighbour	Mr Hennie Venter			072 481 3055 / 051 528 2683
Neighbour	Hendrik			073 410 0669

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.

The impacts arising from the proposed development's design, construction, operation, and decommissioning phases have been assessed. A summary of the findings are presented in this section. Refer to **Appendix F** for an in-depth methodology, rationale, impacts and mitigations description.

****Note that this impact assessment is restricted to the preferred alternative as the second alternative was reject by the EAP due to the impacts of the second alternative being significantly higher on the freshwater system on site. As such the EAP did not consider the second alternative as a viable option for which an in-depth impact assessment was performed.**

Design and planning phase:

Activities associated with the design and pre-construction phase are primarily restricted to planning and design around the proposed development. As such, this phase relies largely upon on-site inspections and desktop assessments. Therefore, the impacts limited to this phase are considered insignificant.

Construction phase:

Impacts limited within the construction phase have far more significant consequences compared to the design and planning phase of the proposed development. During this phase, the environmental impacts occur as both direct and indirect impacts associated with the disturbance of a naturally functioning ecosystem. Any disruption, whether small/concentrated or large/expansive, will adversely influence a naturally functioning ecosystem. The severity and consequences depend on the type of development, the extent of disturbance, the severity and the environment's ability to recover from such disruptions.

Operational phase:

The operational phase of project will take place in an area where the environment has already been altered by the construction phase. As is typical with similar agricultural developments, this project is expected to have minimal environmental impact during this phase. However, due to the proximity of the site to a freshwater system, a thorough assessment of the operational impacts is necessary to ensure that any potential negative effects are minimized.

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Decommissioning phase:

It is unlikely that the broiler facility will be decommissioned as it is envisaged to continue for the foreseeable future. In the unlikely event of decommissioning, the impacts would be expected to be of similar degree to the construction phase, albeit likely of lower intensity and consequence. The mitigation measures indicated in the EMP should be followed.

Summary of impacts:

The table below summarises the assessed impacts and their significance pre and post-mitigation. Refer to the full environmental impact assessment for more details.

Impact type	Phase	Status	Significance pre mitigation	Significance post mitigation
Aspect: Ecological impacts				
Habitat loss <i>Loss of habitat and species diversity as a result of construction and the removal natural elements.</i>	Construction	Negative	Low-medium (8)	Low (4)
	Operation	N/A	N/A	N/A
Invasive plant species <i>Proliferation of exotic plant species due to environmental disturbance.</i>	Construction	Negative	Medium (12)	Low (4)
	Operation	Negative	Low-medium (9)	Low (4)
Loss of protected species <i>The loss of protected flora as a result of the proposed development.</i>	Construction	Negative	Low-medium (8)	Low (4)
	Operation	Negative	Low-medium (6)	Low (2)
Cumulative impacts <i>The cumulative impact resulting from the proposed development on the site and its immediate surroundings' ecological function</i>	Construction	Negative	Low-medium (8)	Low (3)
	Operation	N/A	Low-medium (9)	Low (4)
Aspect: Heritage impacts				
The loss of artefacts and fossils <i>Destruction of any archaeological artefacts or fossils.</i>	Construction	Negative	Low (4)	Low (1)
	Operation	Negative	Low (4)	Low (1)
Aspect: Water resource impacts				
Surface and ground water quality <i>The pollution of surface and groundwater resources due to the proposed development.</i>	Construction	Negative	Medium (12)	Low-medium (6)
	Operation	Negative	Low-medium (6)	Low(4)
Aspect: Aesthetics				
Construction of infrastructure <i>The alteration of landscape appreciation, visual deterioration and visual impacts from the poultry facility</i>	Construction	Negative	Low-medium (8)	Low (3)
	Operation	Negative	Low-medium (9)	Low (4)
Aspect: Air quality				
Air quality <i>Additional air pollution introduced due to the mobilisation of vehicles and land clearance.</i>	Construction	Negative	Low-medium (9)	Low (4)
	Operation	Positive	Low-medium (9)	Low (4)

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Aspect: Socio-economic impacts				
Job creation and the influx of job seekers <i>Impacts associated with the need for locally appointed construction/ operation workers.</i>	Construction	Positive	Medium (15)	N/A
	Operation	Positive	Medium (12)	NA
Aspect: Waste impacts				
General solid waste <i>General solid waste pollution.</i>	Construction	Negative	Low-medium (9)	Low (4)
	Operation	Negative	Low-medium (9)	Low (4)
Manure / organic waste <i>Manure production and other organic waste items such as mortalities</i>	Construction	Negative	N/A	N/A
	Operation	Negative	Medium (12)	Low (4)

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)

The proposed expansion of an existing broiler facility will have impacts on the environment during both the construction and operational phases.

During the construction phase, impacts are expected to be limited to the usual building noise associated with the construction of chicken houses, possible erosion impacts, and the short term impacts on the mentioned freshwater system. Additionally, there will be a short-term socio-economic benefit in the form of employment opportunities for local residents.

During the operational phase, the potential impacts include smell, noise, surface and groundwater contamination, and general sanitation and biological hazard control. Measures such as diligent housekeeping practices, efficient vaccination programs, and compliance with the Animal Disease Act will be implemented to mitigate these potential impacts.

Based on the assessment of potential impacts and the recommended mitigation measures, it is recommended that the proposed development should be favourably considered, as no fatal environmental flaws have been identified that would warrant the refusal of Environmental Authorisation.

Alternative B

The second alternative was presented by the proponent, but was rejected by the EAP as it was located too close to the mentioned freshwater system located near the site's southern boundary. Thus the EAP only presents the preferred alternative as the only viable option for the proposed development.

Alternative C

No-go alternative (compulsory)

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

- No work opportunities will be created.
- No additional food production capacity will be added to the country's production chain.
- The possible boost in the local economy will be lost.
- The loss of investment in the local area

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

BASIC ASSESSMENT REPORT

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

While the no go alternative will not generate any negative environmental impacts, it will surely remove any socio-economic benefit the local community will receive. It is the EAP's recommendation that the competent authority consider this project provided that the applicant abides by all the mentioned mitigations and recommendations listed in the BAR, EMPr and the impact assessment report.

SECTION E. RECOMMENDATION OF PRACTITIONER

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

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

Not applicable

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.

- The project should remain in full compliance with the requirements of the EMP and with all regulatory requirements;
- No destructive activity may encroach near the freshwater system located at the farm's southern boundary.
- Removal of vegetation should be kept to a minimum.
- Exotic plant species/ weed management needs to be implemented on a quarterly basis.
- The principles of the separation of clean and dirty storm water must be implemented and runoff generated in the surrounding natural areas should be diverted around the site and storm water generated on the site footprint itself should be contained on the site before being released into the natural drainage pattern.
- In order to prevent contamination of surface and groundwater the poultry facility should be designed and constructed to such a standard so that effluent is managed on site and prevented from entering the surrounding sub-catchment which will affect the seepage wetland areas.
- Chemical toilets need to be placed on level ground and may not be placed within 32 meters of riparian habitats.
- Any laydown area or construction yard should be located outside the delineated border of the wetland areas adjacent to the site.
- A 61 buffer zone should be retained between the edge of the delineated wetland areas and the footprint of the poultry facility development and should also be regarded as a no-go area
- These wetland areas including the western and eastern hillslope seepage areas and the lower lying unchanneled valley-bottom wetland system as delineated should all be treated as no-go areas and no construction or operational activities, vehicle movement, laydown areas, vegetation clearing or any other associated activities should occur in or near any of these wetlands.
- The necessary authorisations from the DWS needs to be obtained.
- Construction should be restricted to the authorised site boundaries.
- The mitigation measures / recommendations listed by the specialist reports need to be executed.

Is an EMPr attached?

YES	No
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The EMPr must be attached as Appendix G.

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.

BASIC ASSESSMENT REPORT

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.

CW Vermeulen

NAME OF EAP

10 January 2023

SIGNATURE OF EAP

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

Appendix B

Photographs

Appendix C

Facility Illustrations

Appendix D

Specialist Reports

Appendix E

Public Participation Process Report

Appendix F

Impact Assessment

Appendix G
Environmental Management Plan
Report

Appendix H

Details of the EAP

Appendix I
Specialist Declarations

Appendix J
Additional Information

