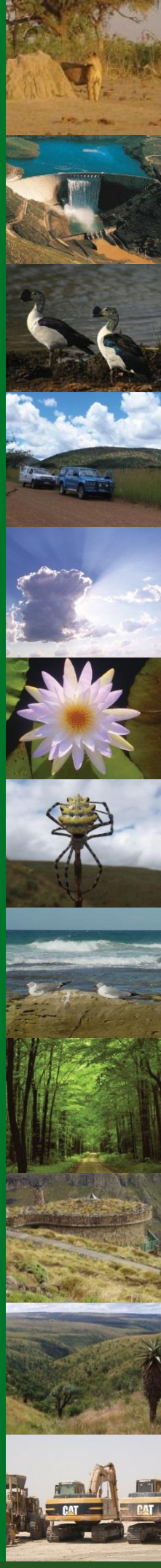
ENVIRONMENTAL IMPACT MANAGEMENT SERVICES

DRAFT BASIC ASSESSMENT REPORT

PROPOSED POULTRY FARM IN WATERDAL, NEAR VANDERBIJLPARK, GAUTENG PROVINCE

EIMS REFERENCE: 1014

GDARD REFERENCE: 002/13-14/E0378



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PROPOSED POULTRY FARM IN WATERDAL, NEAR VANDERBIJLPARK, GAUTENG PROVINCE

DOCUMENT CONTROL

	Name	Signature	Date
Compiled:	Nobuhle Hughes		03 December 2014
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DISTRIBUTION LIST

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Gauteng Department of Water and Sanitation	1 Hard Copy
Sebokeng Police Station	1 Hard Copy
EIMS website (www.eims.co.za)	1 Electronic Copy

REVISION AND AMENDMENTS

Date	No.	Description Of Revision Or Amendment
2014/12/03	0	Draft Basic Assessment Report

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LIST OF TABLES

Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

List of all organs of state and State Departments where the draft report has been submitted, their full contact details and contact person

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.

2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.

3. **A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**

4. 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.

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

6. An incomplete report shall be rejected.

7. 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.

8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.

9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.

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

DEPARTMENTAL DETAILS

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

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

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

No, a list of the State Departments provided with a copy of this report has not been attached to this report.

Is a list of State Departments referred to above been attached to this report?

if no, state reasons for not attaching the list.

Only two State Departments and a local municipality have been provided with this Draft Basic Assessment Report for their review and comment, they are as follows.

- Gauteng Department of Agriculture and Rural Development (GDARD) – the competent authority;
- Gauteng Department of Water and Sanitation (DW&S) – as a commenting authority; and
- Emfuleni Local Municipality – as a commenting authority.

Due to the small number of the distribution list, it was not necessary to attach the list as an appendix to this report, the list has been presented above in this section.

1. SECTION A: ACTIVITY INFORMATION

1.1 ACTIVITY DESCRIPTION

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

Poultry Farm Basic Assessment in Waterdal near Vanderbijlpark, Gauteng Province.

Select the appropriate box

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

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

[X] YES [ ]

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

The applicant proposes to abstract water from a borehole to be erected on site, and store the water in a PVC tank to be utilised on site for the poultry farm (including the abattoir) activities. Furthermore, the applicant proposed to utilise a septic tank for the storage of waste from the abattoir activities to be collected every two weeks by a licensed contractor and disposed of into the municipal waste stream as agreed with the Emfuleni Local Municipality.

For these activities mentioned above, the applicant will be required to apply for a Water Use Licence under the National Water Act (Act 36 of 1998 – NWA) for the following:

- Section 21 (a) – Taking water from a water source (abstraction from an on-site borehole);
- Section 21 (b) – Storage of water (to be stored in PVC tank on site);and
- Section 21 (g) – Disposing of waste in a manner which may detrimentally impact on a water resource (use of septic tank for the abattoir waste towards disposal into the municipal waste stream).

Furthermore, the proposed poultry farm will produce chicken manure which is classified as a hazardous waste and

may trigger the National Environmental Management Waste Act (NEMWA), particularly Category Activity 17 "*The storage, treatment or processing of animal manure at a facility with a capacity to process in excess of one ton per day*".

However, the applicant does not plan to store, handle or treat the chicken manure on site outside of the permitted thresholds specified in the NEMWA. Therefore, a Waste Management Licence is not anticipated to be required.

If yes, have you applied for the authorisation(s)? [redacted] NO
If yes, have you received approval(s)? (attach in appropriate appendix) NO

1.2 APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act No. 107 of 1998 as amended.	National & Provincial	27 November 1998
GN R.544 18 June 2010 Activity 3(i)	The construction of facilities or infrastructure for the slaughter of animals with a product throughput of: (i**) poultry exceeding 50 poultry per day**. *The applicant is applying for Environmental Authorisation for a poultry farm, including the slaughter of poultry (i.e. an abattoir).*	18 June 2010
GN R.544 18 June 2010 Activity 5(ii)	The construction 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 20days** *The applicant proposes to construct facilities for the concentration of 20 000 chickens in 4 broiler houses.*	18 June 2010
GN R.544 18 June 2010 Activity 23(ii)	The transformation of undeveloped, vacant or derelict land to – **(ii) residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares**. *The applicant intends to clear vegetation for the construction of the poultry farm infrastructure.*	18 June 2010

1.3 ALTERNATIVES

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

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

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

No.	**Alternative type**, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	**Description**
The identification of alternatives is a key aspect of the success of the Basic Assessment process. All reasonable and feasible alternatives must be identified and screened to determine the most suitable alternatives to consider in this application. There are however, some constraints that have to be taken into account when identifying alternatives for a project depending on the scope. Such constraints include financial, social and environment related issues. Alternatives can typically be identified according to: • Location alternatives (Only one feasible site exists thus no location alternative); • Activity alternatives (There are two activity alternatives considered in this application); • Design or layout alternatives (Only one layout considered in this application); • Technology alternatives (The current standard technology will be utilised); • Scheduling alternatives (Scheduling alternatives for the construction and operational phases are presented); and • The No-Action alternative (No-Go). For any alternative to be considered feasible, the alternative must meet the need and purposes of the development proposal without presenting significantly high associated impacts. Alternatives are typically distinguished into discrete or incremental alternatives. Discrete alternatives are overall development options, which are typically identified during the pre-feasibility, feasibility and / or Basic Assessment process. Incremental alternatives typically arise during the Basic Assessment process and are usually suggested as a means of addressing/ mitigating identified impacts (e.g. odour nuisance, waste management, traffic impact etc.). These alternatives are closely linked to the identification of mitigation measures and therefore are not specifically identified as distinct alternatives. The types of alternatives considered for this project are presented below.		
1	**Activity Proposal** (Poultry farm only)	The applicant is applying for Environmental Authorisation for a poultry farm as the Activity Proposal. The applicant is proposing a development of a poultry farm consisting of four broiler houses each with 20 000 chickens (a total of 80 000 chickens with a 7% mortality rate) on Holding 18 of Waterdal Agricultural Holdings, in Waterdal near Vanderbijlpark, Gauteng Province. The proposed poultry farm will consist of four broiler houses of 1296 m^2 each and a total of 5184m^2, and various associated infrastructure (e.g. office, ablution facilities, change rooms etc.). The overall size of the poultry farm development is approximately 6088 m^2 (see Appendix A for the site layout and Appendix C for detailed illustration of the proposed structures). Chicken manure will be collected every six weeks during the cleaning of the broiler houses, by an external licensed contractor who will collect the chicken manure with an 8 ton truck to be disposed of at a licensed disposal facility. The hazardous chicken manure will be disposed of at a licences disposal site. The chicken manure will not be stored, handled or treated on site and thus a Waste Management Licence will not be required. Existing untarred roads will be utilised to access the proposed development site and thus no new road infrastructure will be required.
2	**Activity Alternative 1** (Poultry farm and abattoir)	The applicant is also considering the option of a poultry farm and an abattoir on the same property as mentioned above, as an activity alternative. This activity alternative includes the poultry farm as described in the Activity Proposal above, but with the addition of an abattoir. The abattoir is proposed to be 864 m^2 in size in addition to the poultry farm of four broiler houses (each with 20 000 chickens) and associated infrastructure. The abattoir has the production design of a 7.2 cycle where a total of 400 broilers will be slaughtered daily and 76 400 broilers per cycle (80 000 broilers with a mortality rate of 7% resulting in 76 400 broilers). The broilers will be de-feathered and offals (e.g. heads and feet) refrigerated immediately and bodies washed prior to being eviscerated (gizzards and carcasses will be cleaned) and meat

		packaged and refrigerated in cold rooms until dispatch. Solid waste from the poultry farm (e.g. chicken manure) will be collected by a licensed contractor who will also clean and sanitised the broiler houses every six weeks. The hazardous chicken manure will be disposed of at a licences disposal site. The chicken manure will not be stored, handled or treated on site and thus a Waste Management Licence will not be required. Some liquid effluent (wash water with sanitiser), which will consist of BAC50 diluted with water (biodegradable), will be released into the surrounding environment from the cleaning of the broiler houses. Solid waste from the abattoir (e.g. chicken feathers) as well as liquid effluent (e.g. blood and waste water) will drain into an 8 m x 6 m sized septic tank with a capacity of 3000 litres (3 m^3). This septic tank will be erected 10 m closer to the abattoir and will not be on the roadways to avoid breaking up in case of a failure or blockage. A licensed contractor will be appointed to collect the waste every two weeks and dispose of it into the municipal waste stream (see Appendix A Site Plan and Appendix C Illustrations for the location and details of the abattoir and septic tank).

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

A location alternative is not considered feasible, since the proposed site is located on the only property owned by the applicant in Waterdal. The applicant would like to operate a poultry business as the core activity focusing on chicken farming and subsequent value adds such as the abattoir. The poultry farm and abattoir development will be structured based on current industry standard technologies for broiler houses and abattoir design, therefore no further design alternatives will be presented. Moreover, the proposed layout (see Appendix A Site plan) was based on the size of the property, as well as the various layout requirements and restrictions on infrastructure location such as distances between broiler houses/ broiler houses distance from abattoir etc.

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

1.4 PHYSICAL SIZE OF THE ACTIVITY

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

	Size of the activity:
Proposed activity (Poultry farm only)	Four broiler houses: Whereby (108 x 12) per broiler house = 1296 m^2 Therefore four broiler houses are: 1296 m^2 x 4 = 5184 m^2 Additional associated infrastructure (e.g. ablution facilities, office, change rooms) will be approximately 40 m2. Therefore, overall size of proposed activity footprint is Approximately 5224 m2.
Alternatives: Alternative 1 (Poultry farm and abattoir**)**	Four broiler houses and an abattoir which is: (1296 m^2 x 4) broiler houses + (108 x 8) abattoir = 5184 m^2 + 864 m^2 = 6048 m^2 Additional associated infrastructure (e.g. ablution facilities, office, change rooms) will be approximately 40 m2. Therefore, overall size of proposed activity alternative

Alternative 2 (if any) | is Approximately 6088 m2.

Ha/ m^2

or, for linear activities:

	Length of the activity:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	

k/km

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

	Size of the site/servitude:
Proposed activity	21413 m^2
Alternatives:	
Alternative 1 (if any)	21413 m^2
Alternative 2 (if any)	

Ha/m^2

1.5 SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road? YES

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

Describe the type of access road planned:

The proposed poultry farm will be located on Holding 18 of Waterdal Agricultural Holdings in Waterdal, near Vanderbijlpark. The property has existing local main and secondary roads in its vicinity, and one of the existing untarred secondary roads will be utilised to access the site during both the construction and operational phases (see Appendix A for the Site Plan indicating the location of the proposed access points). Therefore, there will be no need for new access road infrastructure.

The table below indicates the frequency at which the existing untarred access road will be utilised and the vehicle type(s) that will utilise it. It should be noted that these numbers are above the normal domestic usage of the staff to and from the site for work.

Truck Type	Frequency	Load Type
1 x 8 tons Feed truck	Once a week	Chicken feed
1 x 8 tons Waste removal truck	Once a week	Domestic solid waste
1 x 8 tons Manure removal truck	Every six weeks	Chicken manure
1 x 40 tons Broiler delivery truck	Every six weeks	Broilers

Include the position of the access road on the site plan.

Alternative 1

Does ready access to the site exist, or is access directly from an existing road? YES

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

Describe the type of access road planned:

The activity alternative of a poultry farm and abattoir is proposed to be located at the same property as described above for the activity proposal, which is on Holding 18 of Waterdal Agricultural Holdings in Waterdal near Vanderbijlpark.

The same existing untarred secondary road identified for the activity proposal above is proposed to be utilised to access the site for the poultry farm and abattoir alternative (see Appendix A for the Site Plan indicating the location of the proposed access points). Therefore, there will be no need for new access road infrastructure.

The table below indicates at the frequency at which the existing access road will be utilised and the vehicle type(s) that will utilise it.

Truck Type	Frequency	Load Type
1 x 8 tons Feed truck	Once a week	Chicken feed
1 x 8 tons Waste removal truck	Once a week	Domestic solid waste
1 x 8 tons Manure removal truck	Every six weeks	Chicken manure
1 x 8 tons Waste removal truck	Every two weeks	Septic tank waste
1 x 8 tons Meat delivery truck	One to two times week	Meat delivery

Include the position of the access road on the site plan.

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

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

Describe the type of access road planned:

Include the position of the access road on the site plan.

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

Section A 6-8 has been duplicated [redacted] Number of times

(only complete when applicable)

1.6 SITE OR ROUTE PLAN

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

- the scale of the plan, which must be at least a scale of 1:2000 (scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
    - Rivers and wetlands;
    - the 1:100 and 1:50 year flood line;
    - ridges;
    - cultural and historical features;
    - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

1.7 SITE PHOTOGRAPHS

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

1.8 FACILITY ILLUSTRATION

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

2. SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

Although there are two alternatives considered in this project, the activity proposal (poultry farm only) and the activity alternative (poultry farm and abattoir), however this section will only be completed once as the receiving environment is the same for both the activity proposal and the activity alternative.

Further:

Instructions for completion of Section B for linear activities

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

Section B has been duplicated for sections of the route [redacted] times

Instructions for completion of Section B for location/route alternatives

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

Section B has been duplicated for **location**/route **alternatives** [redacted] times
(complete only when appropriate)

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

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

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

Section B - Section of Route [redacted] (complete only when appropriate for above)

Section B – Location/route Alternative No. [redacted] (complete only when appropriate for above)

2.1 PROPERTY DESCRIPTION

Property description:

Holding 18, Waterdal Agricultural Holdings in Waterdal, near Vanderbijlpark. The property is within the Emfuleni Local Municipality, under the Sedibeng District Municipality in Gauteng Province.

(Farm name, portion etc.)

2.2 ACTIVITY POSITION

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

Alternative:	**Latitude (S):**	**Longitude (E):**
	26. 568558º	27.869174º

In the case of linear activities:
Alternative:

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

Latitude (S):	Longitude (E):

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

Addendum of route alternatives attached

2.3 GRADIENT OF THE SITE

Indicate the general gradient of the site.

1:50 – 1:20

2.4 LOCATION IN LANDSCAPE

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

Undulating plain/low hills

2.5 GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

Shallow water table (less than 1.5m deep)	NO
Dolomite, sinkhole or doline areas	NO
Seasonally wet soils (often close to water bodies)	NO
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

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

b) are any caves located on the site(s) NO
If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)
Latitude (S): **Longitude (E):**
o o

c) are any caves located within a 300m radius of the site(s) NO
If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)
Latitude (S): **Longitude (E):**
o o

d) are any sinkholes located within a 300m radius of the site(s) NO
If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)
Latitude (S): **Longitude (E):**
o o

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

2.6 AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? NO

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

2.7 GROUNDCOVER

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

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

	Natural veld with scattered aliens (~90 % = natural grassland vegetation, and ~10% = scattered alien plants)	

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

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

Based on observations during the initial site visit, the property for the proposed development is on vacant land and other than previously disturbed grassland vegetation no rare or endangered flora and/or fauna were identified on site.

If YES, specify and explain:

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

According to the GDARD Biodiversity Information EIA unit, in response to an enquiry on whether a biodiversity assessments is required for this application, the response was that no specialist biodiversity studies are required in relation to this application further confirming that no rare or endangered flora and fauna species occur in this vicinity of the proposed study site (refer to Appendix E for proof of correspondence).

If YES, specify and explain:

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

If YES, specify and explain:

Was a specialist consulted to assist with completing this section NO

If yes complete specialist details

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Are any further specialist studies recommended by the specialist?

If YES, specify:

If YES, is such a report(s) attached?

If YES list the specialist reports attached below

Signature of specialist: _____ Date:

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

2.8 LAND USE CHARACTER OF SURROUNDING AREA

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

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential

11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial[AN]	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport[N]	23. Train station or shunting yard[N]	24. Railway line[N]	25. Major road (4 lanes or more)[N]
26. Sewage treatment plant[A]	27. Landfill or waste treatment site[A]	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam[A]	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X250m

NORTH

7, 34	7	7	7	7, 34
7	7	7	7, 34	7
7, 34	7, 34		7, 34	7
7	7	7	7, 34	7
7	7	7, 34	7	7

WEST **EAST**

SOUTH

= Site

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

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

Have specialist reports been attached [redacted] ~~NO~~

To date no specialist studies have been conducted or requested by the competent authority for this application.

If yes indicate the type of reports below

[redacted]

2.9 SOCIO-ECONOMIC CONTEXT

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

The population of Emfuleni Local Municipality has increased by 63 241 from 658 422 in 2001 to 721 663 in 2011, which translate to 10% growth.

The African population has increased significantly from 553 307 in 2001 to 616 095 in 2011 which translate into 11.3% growth and remains the highest. It is followed by White population which decreased from 92 213 in 2001 to 86 948 in 2011, translating into a 6% decrease. The Coloured population growth has increased by 19% from 7 011 in 2001 to 8 356 in 2011. The Indian/Asian population is the lowest but it shows an increase from 5 891 in 2001 to 7 078 in 2011, which translate into 20% growth.

Historically and geographically most of the African population is concentrated in the township areas such as Sebokeng, Evaton, Sharpeville, Boipatong and Bophelong. This is due to history of segregation due to former government laws like Group Areas Act and the 1913 Land acts. The Africans however form the majority of Emfuleni's population. The other population groups are also spread racially across Emfuleni e.g. majority of the Coloured population are found in Rust-ter-Vaal, majority of white population were traditionally in Vanderbijlpark and Vereeniging, but there are changes in population groups living within the CBD areas.

Since the start of the transition to democracy, there has been an increasing emphasis on local economic development (LED) in South Africa. LED is about local people working together to achieve sustainable economic growth that brings economic benefits and quality of life improvements for all in the community. LED brings into focus the role of towns in fostering new opportunities for people. This is important for promoting broad based economic growth, improving social welfare and promoting a more varied and vibrant local economy.

The number of employed people has tremendously increased from 93 537 in 2001 to 202 543 in 2011. This shows more than a 100% increase of employed people within a period of 10 years. At the same time, the number of unemployed people also increased from 63 160 in 2001 to 107 555 in 2011. This shows an increase of more than 90% of unemployed people. In 2001, more males were employed than females and in 2011 the status remains the same despite the increase in number of employed people in both genders.

Furthermore, in 2011 there is a significant decrease from people with no income to those earning between R4 801-R9 600. The highest numbers are concentrated on the income bracket of between R19 201 - R38 400 with the rapid growth from 30 695 in 2001 to 33 902 in 2011. There is an increase in the income bracket of R153 601 - R 1 228 801.

The level of education in this municipality shows a very significant decrease of more than 30 000 from 60 971 in 2001 to 24 079 in 2011 for those with no schooling. The numbers have decreased from 15 694 in 2001 to 12 394 in 2011 for people having a Diploma with Grade 12. There is also a significant increase from 4 503 in 2001 to 7 486 in 2011 for people with Bachelor Degrees. There is an increase of people with higher degrees (Masters or doctorate), from 1 585 in 2001 to 2 267 in 2011.

Therefore, overall the community within the vicinity of the proposed development site is mainly of African descent, unemployment is still a concern, but the level of schooling and higher level education is increasing.

2.10 CULTURAL/HISTORICAL FEATURES

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

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

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

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

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

(i) exceeding 5 000 m2 in extent; or

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

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

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

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

[redacted]

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

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

[redacted]

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)? If yes, please attached the comments from SAHRA in the appropriate Appendix	NO

3. SECTION C: PUBLIC PARTICIPATION

3.1 ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;

1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;

1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;

1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;

1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and

1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and

1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

The following advertisement strategy was implemented for the 30 days Public Participation Period (PPP):

- A newspaper advertisement was placed in the Sedibeng Ster on the 15th May 2014.
- Placement of two A2 size laminated notices at: (1) the entrance of the proposed development site while; (2) the other one was placed on the main road for accessing the proposed site.
- Notification letters were sent to relevant municipalities, ward councillors as well as other organs of state having jurisdiction, regarding the proposed activity.
- A4 fliers were hand delivered to the occupants of surrounding plots (within 100m radius of the proposed development site) who were at home, and the remainder placed at the gates where the occupants were not home.

Additional information regarding public participation can be found in Appendix E.

3.2 LOCAL AUTHORITY PARTICIPATION

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

Has any comment been received from the local authority? YES

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

The correspondence listed below was received from the Emfuleni Local Municipality in response to the initial notification (see Appendix E4 for proof of correspondence):

- Requested copy of Basic Assessment Report once available based on concerns related to environmental health (e.g. zoning of land; waste management; compliance with relevant legislation; general hygiene requirements; possible health effects).
- The earmarked site is within the jurisdiction of the Emfuleni Local Municipality. The zoning for the site is agriculture (primary right). Poultry farming is an agricultural activity and therefore the development is supported. The application is in line with the Emfuleni Spatial Development Framework 2012-2017 proposal, therefore the Spatial Planning section has no objection to the proposed development.
- The poultry business was discussed at the Emfuleni Local Municipality Town Planners meeting and it was concluded that the abattoir component of the proposed poultry farm application will not be supported as it is not an agricultural use. The Emfuleni Department of Land Use Management are not in favour of the environmental consent being obtained for an abattoir.

Full details of correspondence are available in Appendix E4.

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

3.3 CONSULTATION WITH OTHER STAKEHOLDERS

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

Has any comment been received from stakeholders? YES

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

Various comments were received from key stakeholders during initial notification comment period and these are summarised below:

- Eskom – Eskom transmission will not be affected by the application.
- GDARD Biodiversity Information EIA unit – No specialist studies are required, however the absence of wetlands on site should be verified.
- Transnet – Certified that the proposed project does not affect Transnet property rights.
- Gauteng Department of Health (Sedibeng) – Based on a site inspection conducted, the land proposed for the development is vacant and not in very close proximity of nearby townships, Gauteng Department of Health has no objection.
- Gauteng Department of Education – Has no objection.

Full details of correspondence are available in Appendix E4.

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

3.4 GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

3.5 APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

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

Appendix 6 – Comments and Responses Report

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

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

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 – Other

4. SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

Section D has been duplicated for alternatives (complete only when appropriate) | 2 | times

Section D Alternative No. | Activity Proposal (poultry farm only) | (complete only when appropriate for above)

4.1 WASTE, EFFLUENT, AND EMISSION MANAGEMENT

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?

Limited quantities of construction waste will be generated since no demolition work will be required.

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

Due to the early stage of the proposed activity, the exact amount of solid waste to be generated during construction is uncertain. The volumes are however not anticipated to be high. Proper solid waste disposal practices will be followed such that the waste will be stored in skips on site before collection, and will be collected by a licensed contractor using a waste removal truck for disposal to a licensed landfill site/ disposal facility as indicated in the EMPR.

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

Solid waste generated during the construction phase will be stored in labelled skips with covers on site. The waste will be collected from site by a licensed contractor utilizing a waste removal truck to the nearest suitably licensed landfill site/disposal facility.

Will the activity produce solid waste during its operational phase? YES

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

Approximately 13 600 kg of chicken manure will be produced per six weeks cycle per 80 000 broiler chickens (based on the average amount of manure produce by broiler chickens which is estimated to be between 15 – 17 kg per 100 birds in a cycle).

Furthermore, some domestic solid waste will be produced from approximately 20 employees, (the amount thereof is unknown at this stage).

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

Domestic solid waste generated by the approximately 20 employees that will be on site during operations will be stored in labelled bins on site prior to being collected by a suitably licensed contractor using a waste removal truck and disposed of at the nearest licensed landfill/ disposal site once a week.

Furthermore, a licensed contractor will also be appointed to clean and sanitized each of the four broiler houses every six weeks, and collect the chicken manure to be disposed of at a licensed disposal facility.

There will be no treatment of the solid waste produced during operations (e.g. chicken manure and domestic solid waste) as all the solid waste will be collected by licensed contractors and disposed of at suitably licensed disposal facilities.

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

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

The solid waste (e.g. chicken manure and domestic waste) will be disposed of at suitably licensed disposal facilities by licensed contractors using suitable waste disposal trucks. The chicken manure is classified as hazardous and will thus be disposed of a licensed hazardous waste disposal facility and the domestic waste at a licensed general waste disposal facility.

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? YES

Chicken manure will be produced on site during operations and this is classified as hazardous waste. However, since the applicant does not intend to handle, dry or process the chicken manure on site, the proposed activity does not trigger any Waste Management License requirements under the National Environmental Management: Waste Act, 2008. This waste will be handled and removed by a suitably licensed 3rd party contractor.

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

Is the activity that is being applied for a solid waste handling or treatment facility? NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

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

During construction in particular, general waste will be separated at source into recyclable and not-recyclable materials and disposed of at relevant suitably licensed facility. Any recyclable waste to then be distributed for recycling where applicable. Re-use of waste such as excavated material that can be utilized for back-filling and any other construction activities will be encouraged.

Liquid effluent (other than domestic sewage)
Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? NO
If yes, what estimated quantity will be produced per month?

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

Will the activity produce any effluent that will be treated and/or disposed of on site? Yes
If yes, what estimated quantity will be produced per month?

After the removal of chicken manure, the broiler houses will be washed and sanitized with approximately 2 m^3 of water diluted with BAC 50 once every six weeks – this will create approximately 2 m^3 of diluted biodegradable liquid effluent.

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

A licensed contractor will be appointed to clean and sanitized each of the four broiler houses every six weeks, and collect the chicken manure. After cleaning and sanitising the broiler houses with BAC 50 (a low toxicity, biodegradable broad spectrum biocide), the biodegradable solution will be allowed to stand for 12-24 hours before being drained. The manufacturer's instruction indicates that the solution can be used to sterilise drinking water at the same 1:1000 dilution ratio used to clean the broiler houses.

The current industry standard practice will be followed, which is to allow this liquid effluent to flow out of the broiler houses and soak through the soil. If this practice is followed, the impact of soil contamination from the effluent is negligible or non-existent, due to the effluent's biodegradable nature. The site is not located near any water sources, thus the liquid effluent would not impact on nearby water resources.

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

Will the activity produce effluent that will be treated and/or disposed of at another facility? NO
If yes, provide the particulars of the facility:
Facility name:
Contact person:
Postal address:
Postal code:
Telephone: Cell:

E-mail: [redacted] Fax: [redacted]

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

The liquid effluent produced from the cleaning of the broiler houses after the removal of chicken manure is biodegradable in nature and very low in volumes. This method of sanitising the broiler houses allows for a minimum amount of water to be utilized for diluting the BAC50 (1:1000 ratio) and the biodegradable effluent can be disposed of on site without having any negative impacts on the environment.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system? YES [redacted]

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

There will be approximately 20 employees (at approximately 0.07 m^3 sewage per day per person) on site.

Thus an estimate of 42 m^3 of domestic sewage will be produced by the staff monthly. Ablution facilities will be constructed on site for use during the operational phase.

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? [redacted] NO

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

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

[redacted]

Emissions into the atmosphere

Will the activity release emissions into the atmosphere? [redacted] NO

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

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

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

[redacted]

4.2 WATER USE

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

[redacted] groundwater [redacted]

The applicant proposes to utilize groundwater abstracted through a borehole on site as a source of water for the activity (see Appendix A, for the location of the borehole). The storage of water will take place in the form of PVC water tanks, usually from the two top quality manufacturers, these being Jojo Tanks and Roto Tank.

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:

Approximately 1 600 000 litres (1 600 m^3) per year which equals approximately 133 m^3 per month.

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

Does the activity require a water use permit from the Department of Water Affairs? YES [redacted]

If yes, list the permits required

The following National Water Act (Act 36 of 1998) Water Use License applications are anticipated to be required for the activity proposal prior to the commencement of the activity:

Water Use	Description
Section 21 (a)	Taking water from a water resource (abstraction of groundwater from a borehole).
Section 21 (b)	Storing water (storing groundwater from a borehole in PVC tank).

If yes, have you applied for the water use permit(s)? [redacted] NO

A Water Use License Application or applicable General Authorization will be undertaken prior to commencement of the proposed development. The application documentation will be submitted to the Gauteng Department of Water and Sanitation around the same time as the submission of the Final Basic Assessment Report.

If yes, have you received approval(s)? (attached in appropriate appendix)

4.3 POWER SUPPLY

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

Municipality power supply will be utilized for this proposed development (see Appendix I for proof of agreement with local municipality for the power supply).

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

4.4 ENERGY EFFICIENCY

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

A three-phase 200 ampere (138.6/kVA) electrical connection has been approved by the local municipality for the proposed development. A 200kVA pole transformer needs to be installed by the Electricity Department. The proposed development site (Holding 18 in Waterdal) currently has a design load of 60-ampere (13.9kVA), therefore a capital contribution for electricity network expansion for an additional design load of 124.7kVA is required making up the approved 138.6kVA.

The broiler houses will include insulation, maximising temperature control efficiency.

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

There are alternative energy sources that are available for activities such as the proposed development and these include a methane digester, and solar heating. The utilisation of these however, depends on the financial feasibility of the operation and their investigation falls outside the scope of this application.

Section D Alternative No. | 2 (poultry farm and abattoir) | (complete only when appropriate for above)

4.5 WASTE, EFFLUENT, AND EMISSION MANAGEMENT

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?

Limited quantities of construction waste will be generated since no demolition work will be required.

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

Due to the early stage of the proposed activity, the exact amount of solid waste to be generated during construction is uncertain. The volumes are however not anticipated to be high. Proper solid waste disposal practices will be followed such that the waste will be stored in skips on site before collection, and will be collected by a licensed contractor using a waste removal truck for disposal to a licensed landfill site/ disposal facility as indicated in the EMPR.

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

Solid waste generated during the construction phase will be stored in labelled skips with covers on site. The waste will be collected from site by a licensed contractor and transported by road to the nearest suitably licensed landfill site/disposal facility.

Will the activity produce solid waste during its operational phase? YES

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

Approximately 3 600 kg of solid waste (feathers) from the abattoir (per 6 weeks cycle).

An additional amount of approximately 13 600 kg of chicken manure will be generated and disposed of every 6 weeks.

Furthermore, some domestic solid waste will be produced from approximately 20 employees, the amount thereof is unknown at this stage.

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

With regards to the solid waste produced during the operation of the proposed activity alternative of a poultry farm and associated abattoir, the following disposal methods are anticipated:

Domestic solid waste generated by the approximately 20 employees that will be on site during operations will be stored in labelled bins on site prior to being collected by a suitably licensed contractor using a waste removal truck and disposed of at the nearest licensed landfill/ disposal site.

Furthermore, a licensed contractor will also be appointed to clean and sanitized each of the four broiler houses every six weeks, and collect the chicken manure using a suitable waste removal truck to be disposed of at a licensed disposal facility.

For the abattoir solid waste, a connection of pipes from the abattoir will be erected to a septic tank system sized 8 m x 6 m as an effective and economic method to towards waste disposal. The prerequisite for this system is that the soil within this area will drain effectively and conform to the local authority requirements. The septic tank will have a solids trap and the final disposal system will condition the incoming waste by separating liquids and solids, through the mechanism of settling to the bottom of the septic tank resulting into three layers, the sludge, scum, and clear liquid.

The septic tank will be erected 10 m away from the abattoir and will not be on roadways to avoid any breaking-up, in the case of failure or blockage. A licensed contractor will collect the waste from the septic tank every two weeks for disposal into the municipal waste stream (see Appendix I, for agreement from the local municipality to accept waste from the proposed development).

There will be no storage, handling, or treatment of the solid waste produced during operations (e.g. chicken manure and domestic solid waste) on site by the applicant as all the solid waste will be collected by licensed contractors and disposed of at suitably licensed disposal facilities.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? YES

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

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? YES

Chicken manure will be produced on site during operations and this is classified as hazardous waste. However, since the applicant does not intend to handle, dry or process the chicken manure on site, the proposed activity does not trigger any Waste Management Licence requirements under the National Environmental Management: Waste Act, 2008.

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

Is the activity that is being applied for a solid waste handling or treatment facility? NO

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

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

During construction in particular, general waste will be separated at source into recyclable and not-recyclable materials and disposed of at relevant suitably licensed facility. Any recyclable waste to then be distributed for recycling where applicable. Re-use of waste such as excavated material that can be utilized for back-filling and any other construction activities will be encouraged.

Liquid effluent (other than domestic sewage)

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

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

Approximately 7.5 m^3 (7 500 kg) of liquid effluent consisting of waste water (5 400 kg) and blood (2 100 kg) will be produced from the abattoir activities.

With regards to the liquid effluent (excluding domestic sewage) produced during the operation of the proposed activity alternative of a poultry farm and associated abattoir, the following is anticipated:

The abattoir activities will generate some liquid effluent (e.g. blood and waste water) which will drain through a connection of pipes from the abattoir to a septic tank system sized 8 m x 6 m as an effective and economic method to towards disposal. The prerequisite for this system is that the soil within this area will drain effectively and conform to the local authority requirements. The septic tank will have a solids trap and the final disposal system will condition the incoming waste by separating liquids and solids, through the mechanism of settling to the bottom of the septic tank resulting into three layers, the sludge, scum, and clear liquid.

The septic tank will be erected 10 m away from the abattoir and will not be on roadways to avoid any breaking-up, in the case of failure or blockage. A licensed contractor will collect the waste from the septic tank every two weeks for disposal into the municipal waste stream (see Appendix I, for agreement from the local municipality to accept waste from the proposed development).

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? YES

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

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

After the removal of chicken manure, the broiler houses will be washed and sanitized with 2 m^3 of water diluted with BAC 50 once every six weeks – this will create 2 m^3 of diluted biodegradable liquid effluent.

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

A licensed contractor will be appointed to clean and sanitized each of the four broiler houses every six weeks, and collect the chicken manure. After cleaning and sanitising the broiler houses with BAC 50 (a low toxicity, biodegradable broad spectrum biocide), the biodegradable solution will be allowed to stand for 12-24 hours before being drained. The manufacturer's instruction indicates that the solution can be used to sterilise drinking water at the same 1:1000 dilution ratio used to clean the broiler houses.

The current industry standard practice will be followed, which is to allow this liquid effluent to flow out of the broiler houses and soak through the soil. If this practice is followed, the impact of soil contamination from the effluent is negligible or non-existent, due to the effluent's biodegradable nature. The site is not located near any water sources, thus the liquid effluent would not impact on nearby water resources.

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

Will the activity produce effluent that will be treated and/or disposed of at another facility? NO
If yes, provide the particulars of the facility:
Facility name:
Contact person:
Postal address:
Postal code:
Telephone: Cell:
E-mail: Fax:

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

The liquid effluent produced from the cleaning of the broiler houses after the removal of chicken manure is biodegradable in nature and very low in volumes. This method of sanitising the broiler houses allows for a minimum amount of water to be utilized for diluting the BAC50 (1:1000 ratio) and the biodegradable effluent can be disposed of on site without having any negative impacts on the environment.

Liquid effluent (domestic sewage)
Will the activity produce domestic effluent that will be disposed of in a municipal sewage system? YES
If yes, what estimated quantity will be produced per month?

There will be approximately 20 employees (at approximately 0.07 m^3 sewage per day per person) on site.

Thus an estimate of 42 m^3 of domestic sewage will be produced monthly.

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? NO

Will the activity produce any effluent that will be treated and/or disposed of on site? NO
If yes describe how it will be treated and disposed off.

Emissions into the atmosphere
Will the activity release emissions into the atmosphere? NO
If yes, is it controlled by any legislation of any sphere of government?
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If no, describe the emissions in terms of type and concentration:

4.6 WATER USE

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

The applicant proposes to utilize groundwater accessed through a borehole on site as a source of water for the activity (see Appendix A, for the location of the borehole). The storage of water will take place in the form of PVC water tanks, usually from the two top quality manufacturers, these being Jojo Tanks and Roto Tank.

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:

Approximately 1 600 000 litres (1 600 m^3) per year which equals approximately 133 m^3 per month.

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

Does the activity require a water use permit from the Department of Water Affairs? YES
If yes, list the permits required

The following National Water Act (Act 36 of 1998) Water Use Licence applications are anticipated to be required for the activity proposal prior to the commencement of the activity:

Section 21 Water Use	Description
Section 21 (a)	Taking water from a water resource (abstraction of groundwater from a borehole)
Section 21 (b)	Storage of water (storage of groundwater from a borehole in PVC tank)
Section 21 (g)	Disposing of waste in a manner which may detrimentally impact on a water resource (use of septic tank towards the disposal of abattoir waste)

If yes, have you applied for the water use permit(s)? NO

A Water Use Licence Application will be undertaken prior to commencement of the activity and will be submitted at in time with the submission of the Final Basic Assessment Report.

If yes, have you received approval(s)? (attached in appropriate appendix)

4.7 POWER SUPPLY

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

Municipality power supply will be utilized for this proposed development (see Appendix I for proof of agreement with local municipality for the power supply).

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

4.8 ENERGY EFFICIENCY

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

A three-phase 200 ampere (138.6/kVA) electrical connection has been approved by the local municipality for the proposed development. A 200kVA pole transformer needs to be installed by the Electricity Department. The proposed development site (Holding 18 in Waterdal) currently has a design load of 60-ampere (13.9kVA), therefore a capital contribution for electricity network expansion for an additional design load of 124.7kVA is required making up the approved 138.6kVA.

The broiler houses will include insulation maximising temperature control efficiency.

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

There are alternative energy sources that are available for activities such as the proposed development and these include a methane digester, and solar heating. The utilisation of these however, depends on the financial feasibility of the operation and their investigation falls outside the scope of this application.

5. SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, 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.

5.1 ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

The following issues were raised by Interested and Affected Parties (I&APs) to date:

- Concerns from an Environmental Health point of view on e.g. the following:
  - Zoning of land
  - Waste management
  - Compliance with relevant legislation
  - General hygiene requirements
  - Possible health effect
- It was concluded by the Emfuleni Local Municipality town planners (Land Use Management) that the abattoir component of the proposed development will not be supported as it is not an agricultural use. Furthermore, after the EAP inquired whether the re-zoning application by the applicant would be approved by the Land Use Management Unit and the response was that since they are already objecting to the abattoir then it is not likely that they will approve a re-zoning application.
- Various notifications of no objection to the proposed development (Transnet, Eskom transmission, Gauteng Department of Education, Gauteng Department of Health,

Please refer to Appendix E4 for all copies of correspondence received to date from I&APs regarding the proposed development.

Summary of response from the practitioner to the issues raised by the interested and affected parties
(A full response must be provided in the Comments and Response Report that must be attached to this report):

Please refer to Appendix E4 for copies of correspondence with I&APs which included the Environmental Assessment Practitioner's responses to I&APs.

5.2 IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

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

The Impact Assessment Methodology

Method of Assessing Impacts:

The impact assessment methodology is guided by the requirements of the NEMA EIA Regulations (2010). The broad approach to the significance rating methodology is to determine the environmental risk (ER) by considering the consequence (C) of each impact (comprising Nature, Extent, Duration, Magnitude, and Reversibility) and relate this to the probability/likelihood (P) of the impact occurring. This determines the environmental risk. In addition other factors, including cumulative impacts, public concern, and potential for irreplaceable loss of resources, are used to determine a prioritisation factor (PF) which is applied to the ER to determine the overall significance (S). Please note that the impact assessment must apply to the identified Sub Station alternatives as well as the identified Transmission line routes.

Determination of Environmental Risk:

The significance (S) of an impact is determined by applying a prioritisation factor (PF) to the environmental risk (ER).

The environmental risk is dependent on the consequence (C) of the particular impact and the probability (P) of the impact occurring. Consequence is determined through the consideration of the Nature (N), Extent (E), Duration (D), Magnitude (M), and reversibility (R) applicable to the specific impact.

For the purpose of this methodology the consequence of the impact is represented by:

$$C = \frac{(E+D+M+R)}{4} \times N$$

Each individual aspect in the determination of the consequence is represented by a rating scale as defined in Table 1.

Table 1: Criteria for Determining Impact Consequence

Aspect	Score	Definition
Nature	- 1	Likely to result in a negative/ detrimental impact
	+1	Likely to result in a positive/ beneficial impact
Extent	1	Activity (i.e. limited to the area applicable to the specific activity)
	2	Site (i.e. within the development property boundary),
	3	Local (i.e. the area within 5 km of the site),
	4	Regional (i.e. extends between 5 and 50 km from the site
	5	Provincial / National (i.e. extends beyond 50 km from the site)
Duration	1	Immediate (<1 year)
	2	Short term (1-5 years),
	3	Medium term (6-15 years),
	4	Long term (the impact will cease after the operational life span of the project),
	5	Permanent (no mitigation measure of natural process will reduce the impact after construction).
Magnitude/ Intensity	1	Minor (where the impact affects the environment in such a way that natural, cultural and social functions and processes are not affected),
	2	Low (where the impact affects the environment in such a way that natural, cultural and social functions and processes are slightly affected),
	3	Moderate (where the affected environment is altered but natural, cultural and social functions and processes continue albeit in a modified way),
	4	High (where natural, cultural or social functions or processes are altered to the extent that it will temporarily cease), or
	5	Very high / don't know (where natural, cultural or social functions or processes are altered to the extent that it will permanently cease).
Reversibility	1	Impact is reversible without any time and cost.
	2	Impact is reversible without incurring significant time and cost.
	3	Impact is reversible only by incurring significant time and cost.
	4	Impact is reversible only by incurring prohibitively high time and cost.
	5	Irreversible Impact

Once the C has been determined the ER is determined in accordance with the standard risk assessment relationship by multiplying the C and the P. Probability is rated/scored as per Table 2.

Table 2: Probability Scoring

Probability	1	Improbable (the possibility of the impact materialising is very low as a result of design, historic experience, or implementation of adequate corrective actions; <25%),
	2	Low probability (there is a possibility that the impact will occur; >25% and <50%),
	3	Medium probability (the impact may occur; >50% and <75%),
	4	High probability (it is most likely that the impact will occur- > 75% probability), or
	5	Definite (the impact will occur),

The result is a qualitative representation of relative ER associated with the impact. ER is therefore calculated as follows:

$$ER = C \times P$$

Table 3: Determination of Environmental Risk

Consequence						
	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
		Probability				

The outcome of the environmental risk assessment will result in a range of scores, ranging from 1 through to 25. These ER scores are then grouped into respective classes as described in Table 4.

Table 4: Significance Classes

Environmental Risk Score	
Value	**Description**
< 9	Low (i.e. where this impact is unlikely to be a significant environmental risk),
≥9; <17	Medium (i.e. where the impact could have a significant environmental risk),
≥ 17	High (i.e. where the impact will have a significant environmental risk).

The impact ER will be determined for each impact without relevant management and mitigation measures (pre-mitigation), as well as post implementation of relevant management and mitigation measures (post-mitigation). This allows for a prediction in the degree to which the impact can be managed/mitigated.

Impact Prioritisation:

In accordance with the requirements of Regulation 31 (2)(l) of the EIA Regulations (GNR 543), and further to the assessment criteria presented in the Section above it is necessary to assess each potentially significant impact in terms of:

- Cumulative impacts; and
- The degree to which the impact may cause irreplaceable loss of resources.

In addition it is important that the public opinion and sentiment regarding a prospective development and consequent potential impacts is considered in the decision making process.

In an effort to ensure that these factors are considered, an impact prioritisation factor (PF) will be applied to each impact ER (post-mitigation). This prioritisation factor does not aim to detract from the risk ratings but rather to focus the attention of the decision-making authority on the higher priority/significance issues and impacts. The PF will be applied to the ER score based on the assumption that relevant suggested management/mitigation impacts are implemented.

Table 5: Criteria for Determining Prioritisation

Public response (PR)	Low (1)	Issue not raised in public response.
	Medium (2)	Issue has received a meaningful and justifiable public response.
	High (3)	Issue has received an intense meaningful and justifiable public response.
Cumulative Impact (CI)	Low (1)	Considering the potential incremental, interactive, sequential, and synergistic cumulative impacts, it is unlikely that the impact will result in spatial and temporal cumulative change.
	Medium (2)	Considering the potential incremental, interactive, sequential, and synergistic cumulative impacts, it is probable that the impact will result in spatial and temporal cumulative change.
	High (3)	Considering the potential incremental, interactive, sequential, and synergistic cumulative impacts, it is highly probable/definite that the impact will result in spatial and temporal cumulative change.
Irreplaceable loss	Low (1)	Where the impact is unlikely to result in irreplaceable loss of resources.

of resources (LR)	Medium (2)	Where the impact may result in the irreplaceable loss (cannot be replaced or substituted) of resources but the value (services and/or functions) of these resources is limited.
	High (3)	Where the impact may result in the irreplaceable loss of resources of high value (services and/or functions).

The value for the final impact priority is represented as a single consolidated priority, determined as the sum of each individual criteria represented in Table 11. The impact priority is therefore determined as follows:

Priority = PR + CI + LR

The result is a priority score which ranges from 3 to 9 and a consequent PF ranging from 1 to 2 (Refer to Table 6).

Table 6: Determination of Prioritisation Factor

Priority	Ranking	Prioritisation Factor
3	Low	1
4	Medium	1.17
5	Medium	1.33
6	Medium	1.5
7	Medium	1.67
8	Medium	1.83
9	High	2

In order to determine the final impact significance the PF is multiplied by the ER of the post mitigation scoring. The ultimate aim of the PF is to be able to increase the post mitigation environmental risk rating by a full ranking class, if all the priority attributes are high (i.e. if an impact comes out with a medium environmental risk after the conventional impact rating, but there is significant cumulative impact potential, significant public response, and significant potential for irreplaceable loss of resources, then the net result would be to upscale the impact to a high significance).

Table 7: Final Environmental Significance Rating

Environmental Significance Rating	
Value	**Description**
< 10	Low (i.e. where this impact would not have a direct influence on the decision to develop in the area),
≥10 <20	Medium (i.e. where the impact could influence the decision to develop in the area),
≥ 20	High (i.e. where the impact must have an influence on the decision process to develop in the area).

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

Proposal (Poultry farm only)

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
PLANNING AND DESIGN PHASE			
No specific management and mitigation measures have been identified which will be applicable for the planning and design phase.			
CONSTRUCTION			
Noise pollution – Noise will be generated during construction phase. Some of the activities which could constitute a noise nuisance during construction are power tools, driving, loading and off-loading, vehicle hooters and reverse sirens. The site is rural in nature and few direct receptors in a form of residential plots exist around the proposed site.	**- 6.75 (LOW)**	➢ All reasonable precautions must be taken to minimize noise generated on site. ➢ Construction vehicles must be kept in good working order so as not to generate excessive noise. ➢ The contractor may not use sound amplification equipment on site. ➢ Activities which will lead to excessive noise near residential areas should be limited to take place during the day. ➢ Working hours to be restricted to between 07h30 and 18h00 weekdays and between 09h00 and 16h00 on weekends.	**-3.5 (LOW)**
Dust pollution – Dust created during construction would cause a nuisance impact on surrounding plots/holdings.	**-4.5 (LOW)**	➢ Clearing of construction footprints must be undertaken as close as possible to the commencement of actual construction to prevent the exposure of bare soils for unreasonable periods. ➢ The ambient air quality standard of the National Environmental Management: Air Quality Act must be complied with (GNR 1210 of December 2009), specifically pertaining to particulate matter (PM10). ➢ On completion of the construction all exposed soil must be re-vegetated preferably with indigenous vegetation.	**-3.5 (LOW)**
Soil and water (surface and ground) pollution – No water resource is present within the proposed development site, however construction activities have the potential to pollute surrounding drainage system, through accidental spills and incorrect storage of construction materials, if not suitably managed. Substances such as cement residues are especially of concern and must be adequately controlled. In addition exposed surfaces during construction would provide a source of sediment build-up from stormwater resulting in downstream sedimentation of the water resources. It is recommended that strict control is maintained over all potentially polluting substances and/or activities. This includes correct waste disposal as well as regular monitoring of the water quality on site.	**-8.25 (LOW)**	➢ Concrete and/or cement must not be mixed directly on the ground but must be mixed on a mortar board. ➢ Visible remains of concrete as a result of construction must be physically removed and disposed of as building waste. ➢ No hazardous substances must come into direct contact with the soil. In the event of accidental spillage and contamination events, the source of the spill must be rectified. ➢ Construction vehicles must be maintained to proactively prevent unnecessary spills (such as fuels, lubricants, etc.). ➢ All working areas must be provided with a spill containment kit to contain and collect spills. ➢ All spills must be reported to the appointed ECO. ➢ Monitoring of the water quality must be undertaken during construction and operation.	**-4 (LOW)**
Waste management –	**-7.5 (LOW)**	➢ No waste is to be disposed of directly into the local environment. ➢ Adequate refuse facilities (bins or skips with lids to protect against scavengers and odour nuisance) must be placed on site during construction. ➢ Contaminated water, and effluents	**-4 (LOW)**

		must be prevented from entering the local environment (soil and water), and disposed of at a suitably licensed disposal facility. Waste bins must be emptied on a regular basis and the contents disposed of at a suitably licensed waste disposal site. Safe disposal certificates to be obtained for any waste leaving the sites.	
Traffic impact – Traffic may be generated during the construction face of the facility. This impact will be due to delivery of building materials, staff and equipment, and the removal of wastes.	**-4.5 (LOW)**	Identify where on the existing secondary roads possible increase in traffic flow could occur and when, and then communicate this to the relevant authorities and affected parties (e.g. landowners/ occupiers).	**-3 (LOW)**
Visual impact – It is anticipated that construction activities will have a visual impact to the surrounding neighbours. However the visual impact will be of a Low significance if the necessary mitigation measures are implemented.	**-8.25 (LOW)**	Ensure that all construction materials are stored neatly. Remove construction rubble at least once a week. Undertake periodic litter collection patrols. Any vegetation clearing should only be done when it is absolutely necessary (i.e. directly prior to commencing with construction activities).	**-4 (LOW)**
OPERATION			
Noise pollution – While activities around the broiler shed and the broiler shed fans may generate some noise, truck movements are the main source of the operation phase noise impact. The impact of noise emissions can be affected by many factors, including atmospheric conditions, local topography, and natural and artificial barriers. Surrounding residents are more sensitive to noise during the evening and night, when there is greater potential to interrupt sleep.	**-8.25 (LOW)**	All construction vehicles must be serviced regularly to control unnecessary noise. Working hours to be restricted to between 07h30 and 18h00 weekdays, and between 09h00 and 16h00 on weekends. The regulatory noise requirements must be complied with. With regards to noise, the provisions of Section 25 of the Gauteng Noise Regulations Environment Conservation Act (Act 73 of 1989); the related noise control regulations (Noise Regulations (GNR 154 of 1992)); and the provisions of SANS 10103, must be complied with. Equipment must be maintained to prevent unnecessary noise. Any deliveries and/ or collection of waste should be scheduled when the noise impact from these vehicles on surrounding residents is likely to be the least. Suggested times are between 07h30 and 10h00, as well as between 14h00 and 16h00 on weekdays. Ensure that fan exhausts, doors and other openings in broiler houses are located in the opposite direction from the side with the closest neighbouring residence to reduce the noise impact to these receptors. It is recommended that the USEPA (Environment Protection Act 1993) guidelines on poultry houses be followed, where poultry houses should not be located within 500 metres buffer of residences to reduce noise, dust and odours.	**-5 (LOW)**
Traffic impact The poultry farm operation is likely to generate some additional traffic in the vicinity of the	**-8.25 (LOW)**	Deliveries should be scheduled during office hours, and only take place between 07h30 and 10h00 as well as	**-4.5 (LOW)**

proposed development site, especially from waste removal trucks. Road frontage should provide safe and convenient access for farm workers and service vehicles. The area does not experience heavy traffic, therefore the traffic impact is somewhat lessened.		between 14h00 and 16h00 on weekdays.	
Waste management – The waste generated during operations can have an impact on soil and water quality, as well as contribute significantly to nuisance odour. Waste eggs and chicken fatalities generated during production would have to be disposed of and could potentially contribute to health and safety risk, such as attracting rodents and flies. The poultry farm will also contribute to an increase in domestic waste production, although this will be low. Chicken manure produced during the operational phase of a poultry farm is considered hazardous waste and thus proper disposal procedures need to be put in place. Poultry manure is produced during the normal operation of hatcheries, broiler production and egg laying production.	**-9 (LOW)**	Waste (domestic waste and chicken manure) from the operational phase activities must not be disposed of on site. The waste must be removed by a licensed contractor and disposed of at a licensed disposal facility. None of the operational phase waste should be processed or handled on site. The impact of leachate contaminated with chicken manure to be mitigated by the sealed nature of the broiler houses preventing rainwater from penetrating the broiler houses and creating leachate or contaminated stormwater. Safe disposal certificates and records must be kept on site to prove that licensed waste contractors where used for the removal and disposal of the waste to licenced disposal facilities. Chicken manure will be removed every six weeks by a licensed contractor, however the applicant should make provision for more regular manure removals if complaints are received for neighbours regarding odour nuisance from the manure. Any chicken fatalities must be removed by a licensed waste transporter or may be removed from the site by the farm operator in a vehicle that complies with relevant legislation, i.e. liquids and odours must be fully contained by the vehicle. Freezing of dead birds may be an option to reduce odour problems associated with their transportation.	**-4.5 (LOW)**
Soil and water (surface and ground) pollution – The key environmental issues pertaining to poultry farms are associated with the run-off of nutrients or waste to the surrounding environment – that is, into surface and ground water. Although runoff is usually well controlled on poultry farms, the main potential sources of run-off are waste areas such as temporary litter piles, compost piles, and other litter spreading areas that are inappropriately sited or managed. However all aspects of the poultry farm operation (e.g. broiler houses) must be designed to avoid nutrient run-off to surface and ground water.	**-9.75 (LOW)**	Stormwater should not be allowed to come into contact with liquid effluent or solid waste from the broiler houses. Regular monitoring of the water quality from the on-site borehole must be undertaken during the operation phase of the poultry farm. Best practice measures to manage and control emissions, pollution, and waste on poultry farms must be employed.	**-4.5 (LOW)**
Pest control – Flies and rodents resulting from litter pile ups and / or build-up of chicken manure could represent a serious health and safety risk, and could also spread communicable diseases.	**-9.75 (LOW)**	Flies and rodents should be managed through the use of suitable hygiene management. All waste should be removed timeously and effectively. Poultry legislation best practice guidelines should be implemented, to	**-5 (LOW)**

		reduce the ingress of pests into the broiler houses, coupled with a regular pest and control program should this impact become a concern.	
Sense of place – The surrounding area consists of agricultural holdings with several homes. The proposed agricultural activity will impact on the sense of place. However, the area is sparsely populated and is mainly agricultural holdings.	**-9 (LOW)**	➢ The exterior of the broiler houses must be treated with a natural matt colour paint to reduce their long range visibility and to reduce their visual disruption. ➢ The noise and odour impacts also form part of this impact, they are mitigated under their own sections. ➢ It is recommended that a vegetative screen be planted between the development site and the nearest receptors where possible.	**-5 (LOW)**
Health impact – Scavenging, backyard and free ranging poultry production systems have, by definition, a much greater degree of contact with potential disease causing organisms than intensive indoor farming systems[1,2]. Outbreaks of infectious diseases would be minimised and remedied as specific by relevant legislation and best practice[3]. 1. *Jacobs, R.D., Hogsette, J.A. and Butcher, G.D. (1997). Nematode Parasites of Poultry.* 2. *Permin A. and Hansen J.W. (1998). Epidemiology, diagnosis and control of poultry diseases. The need for a holistic view on disease problems in free-range chickens.* 3. *Permin A. and Hansen J.W. (1998). Epidemiology, diagnosis and control of poultry diseases. FAO Animal Health Manuals 4. Rome: Food and Agriculture Organization of the United Nations (FAO). 160 pp.*	**-9.75 (LOW)**	➢ The applicant must comply with relevant poultry legislation and Best Practice Guidelines and Animal Disease Act (Act 35 of 1984). ➢ The applicant must ensure that feral animals do not come into contact with the poultry. ➢ All regulatory requirements and relevant standards must be complied with for necessary fire prevention, detection, and response at the poultry farm. ➢ The poultry farm infrastructure as well as any maintenance vehicles must be equipped with adequate fire control equipment. ➢ The design and construction of all poultry farm infrastructure must conform to the following fire safety standards and legislation: SANS 10089 (building code); Hazardous substances Act (Act 15 of 1973); Occupational Health and Safety Act (Act 85 of 1996); Fire Services (Act 99 of 1956); National Building Regulations (Act 103 of 1977. ➢ Fire extinguishers must be easily accessible on site.	**-5 (LOW)**
Odour nuisance – Raising of broilers is inherently an odour-producing. Odour is produced from the anaerobic decomposition of manure, spilt feed and other organic matter, as well as from the chickens and chicken respiration. The high moisture content in the litter assists this biological reaction (anaerobic digestion). Odour emissions may have adverse impacts on the existing sensitive uses beyond the broiler farm boundary if the infrastructure is not well located, designed, and operated. Generally, the greater the frequency, intensity, duration and offensiveness of the odour, the more likely it is to cause annoyance and lead to nuisance complaints.	**-9.75 (LOW)**	➢ Solid waste such as chicken manure and spilt chicken feed must be cleaned and removed from the broiler houses every six weeks to prevent odour. ➢ None of the operational waste must be handled or treated on site. ➢ Safe waste disposal certificates and records must be kept to prove that licensed waste contractors were used for the removal and disposal of all waste from the broiler houses. ➢ The applicant should make provision for more regular waste removal if complaints of nuisance odour are received for neighbours.	**-5 (LOW)**

Alternative 1 (Poultry farm and abattoir)

Potential impacts: CONSTRUCTION & OPERATION	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
PLANNING AND DESIGN PHASE			
No specific management and mitigation measures have been identified which will be applicable for the planning and design phase.			
CONSTRUCTION			
Noise pollution – Noise will be generated during construction phase. Some of the activities which could constitute a noise nuisance during construction are power tools, driving, loading and off-loading, vehicle hooters and reverse sirens. The site is rural in nature and few direct receptors in a form of residential plots exist around the proposed site.	**-6.75 (LOW)**	➢ All reasonable precautions must be taken to minimize noise generated on site. ➢ Construction vehicles and equipment must be kept in good working order so as not to generate excessive noise. ➢ The contractor may not use sound amplification equipment on site. ➢ Activities which will lead to excessive noise near residential areas should be limited to take place during the day. ➢ Working hours to be restricted to between 07h30 and 18h00 weekdays and between 09h00 and 16h00 on weekends.	**-3.5 (LOW)**
Dust pollution – Dust created during construction would cause a nuisance impact on surrounding plots/holdings.	**-4.5 (LOW)**	➢ Clearing of construction footprints must be undertaken as close as possible to the commencement of actual construction to prevent the exposure of bare soils for unreasonable periods. ➢ The ambient air quality standard of the National Environmental Management: Air Quality Act must be complied with (GNR 1210 of December 2009), specifically pertaining to particulate matter (PM10). On completion of the construction all exposed soil must be re-vegetated preferably with indigenous vegetation	**-3.5 (LOW)**
Soil and water (surface and ground) pollution – No water resource is present within the proposed development site, however construction activities have the potential to pollute surrounding drainage system, through accidental spills and incorrect storage of construction materials, if not suitably managed. Substances such as cement residues are especially important and must be adequately controlled. In addition exposed surfaces during construction would provide a source of sediment build-up from stormwater resulting in downstream sedimentation of the water resources. It is recommended that strict control is maintained over all potentially polluting substances and/or activities. This includes correct waste disposal as well as regular monitoring of the water quality on site.	**-8.25 (LOW)**	➢ Concrete and/or cement must not be mixed directly on the ground but must be mixed on a mortar board. ➢ Visible remains of concrete as a result of construction must be physically removed and disposed of as building waste. ➢ No hazardous substances must come into direct contact with the soil. In the event of accidental spillage and contamination events, the source of the spill must be rectified. ➢ Construction vehicles must be maintained to proactively prevent unnecessary spills (such as fuels, lubricants, etc.). ➢ All working areas must be provided with a spill containment kit to contain and collect spills. ➢ All spills must be reported to the appointed ECO. ➢ Monitoring of the water quality must be undertaken during construction and operation.	**-4 (LOW)**
Waste management –	**-7.5 (LOW)**	➢ No waste is to be disposed of directly into the local environment. ➢ Adequate refuse facilities (bins or skips with lids to protect against scavengers and odour nuisance) must	**-4 (LOW)**

		be placed on site during construction. - Contaminated water, and effluents must be prevented from entering the local environment (soil and water), and disposed of at a suitably licensed disposal facility. - Waste bins must be emptied on a regular basis and the contents disposed of at a suitably licensed waste disposal site. - Safe disposal certificates to be obtained for any waste leaving the sites.	
Traffic impact – Traffic may be generated during the construction face of the facility. This impact will be due to delivery of building materials, staff and equipment, and the removal of wastes.	**-4.5 (LOW)**	- Identify where on the existing secondary roads possible increase in traffic flow could occur and when, and then communicate this to the relevant authorities and affected parties (e.g. landowners/ occupiers).	**-3 (LOW)**
Visual impact – It is anticipated that construction activities will have a visual impact to the surrounding neighbours. However the visual impact will be of a Low significance if the necessary mitigation measures are implemented.	**-8.25 (LOW)**	- Ensure that all construction materials are stored neatly. - Remove construction rubble at least once a week. - Undertake periodic litter collection patrols. - Any vegetation clearing should only be done when it is absolutely necessary (i.e. directly prior to commencing with construction activities).	**-4 (LOW)**
OPERATION			
Noise pollution – The operation of the broiler houses and abattoir could negatively affect the ambient noise levels of the area.	**-8.25 (LOW)**	- All construction vehicles must be serviced regularly to control unnecessary noise. - Working hours to be restricted to between 07h30 and 18h00 weekdays, and between 09h00 and 16h00 on weekends. - The regulatory noise requirements must be complied with. With regards to noise, the provisions of Section 25 of the Gauteng Noise Regulations Environment Conservation Act (Act 73 of 1989); the related noise control regulations (Noise Regulations (GNR 154 of 1992)); and the provisions of SANS 10103, must be complied with. - Equipment must be maintained to prevent unnecessary noise. - Any deliveries and/ or collection of waste should be scheduled when the noise impact from these vehicles on surrounding residents is likely to be the least. Suggested times are between 07h30 and 10h00, as well as between 14h00 and 19h00 on weekdays. - Ensure that fan exhausts, doors and other openings in broiler houses are located in the opposite direction from the side with the closest neighbouring residence to reduce the noise impact to these receptors. - It is recommended that the USEPA (Environment Protection Act 1993) guidelines on poultry houses be followed, where poultry houses should not be located within 500 metres buffer of residences to reduce noise, dust and odours.	**-5 (LOW)**
Traffic impact The poultry farm operation is likely to generate	**- 8.25 (LOW)**	- Deliveries should be scheduled during office hours, and only take place	**- 5 (LOW)**

some additional traffic in the vicinity of the proposed development site, especially from waste removal trucks. Road frontage should provide safe and convenient access for farm workers and service vehicles. The area does not experience heavy traffic, therefore the traffic impact is somewhat lessened.		between 06h00 and 10h00, as well as between 14h00 and 19h00 on weekdays.	
Waste management – The waste generated during operations can have an impact on soil and water quality, as well as contribute significantly to nuisance odour. Waste eggs and chicken fatalities generated during production would have to be disposed of and could potentially contribute to health and safety risk, such as attracting rodents and flies. The poultry farm will also contribute to an increase in domestic waste production, although this will be low. Chicken manure produced during the operational phase of a poultry farm is considered hazardous waste and thus proper disposal procedures need to be put in place. Poultry manure is produced during the normal operation of hatcheries, broiler production and egg laying production. Furthermore, abattoirs by their very nature are prolific generators of biological waste. The main sources of biological waste are condemned meat and specific risk material such as blood; feathers; waste water etc. Biological waste is a major concern for any abattoir. The disposal of biological waste can have serious implications for the abattoir in hygiene and financial terms. A 3 m^3 capacity septic tank 10 m from the abattoir will be utilized to stored biological waste to be disposed of by a licensed contractor into the municipal waste stream	**-13 (MEDIUM)**	➢ Solid waste and liquid effluent from the operational phase activities of both the poultry farm and the abattoir must not be disposed of on site. The blood, waste water, and chicken feathers should drain into the septic tank and be removed by a licensed contractor and disposed of into the municipal waste stream every two weeks. ➢ None of the operational phase waste (chicken manure, abattoir biological waste) should be processed or handled on site. ➢ The impact of leachate contaminated with chicken manure to be mitigated by the sealed nature of the broiler houses preventing rainwater from penetrating the broiler houses and creating leachate or contaminated stormwater. ➢ Safe disposal certificates and records must be kept to prove that licensed waste contractors where used for the removal and disposal of the solid waste (chicken manure) as well as the abattoir waste from the septic tank to licenced disposal facilities. ➢ The applicant will remove the chicken manure every six weeks and the septic tank waste every two weeks by a licensed contractor. However, the applicant should make provision for more regular manure removals if complaints are received for neighbours regarding odour nuisance from the waste. ➢ Any chicken fatalities must be removed by a licensed waste transporter or may be removed from the site by the farm operator in a vehicle that complies with relevant legislation, i.e. liquids and odours must be fully contained by the vehicle. ➢ Freezing of dead birds may be an option to reduce odour problems associated with their transportation.	**-5.5(LOW)**
Soil and water (surface and ground) pollution – The key environmental issues pertaining to poultry farms are associated with the run-off of nutrients or waste to the surrounding environment – that is, into surface and ground water. Although runoff is usually well controlled on poultry farms, the main potential sources of run-off are waste areas such as	**-9.75 (LOW)**	➢ Stormwater should not be allowed to come into contact with liquid effluent or solid waste from the broiler houses and abattoir. ➢ Regular monitoring of the water quality from the on-site borehole must be undertaken during the operational phase of the poultry farm and abattoir. ➢ Best practice measures to manage and control emissions, pollution, and	**-5 (LOW)**

temporary litter piles, compost piles, and litter spreading areas that are inappropriately sited or managed. However all aspects of the poultry farm operation (e.g. broiler houses) must be designed to avoid nutrient run-off to surface and ground water.		waste on poultry farms must be employed.	
Pest control – Flies and rodents resulting from litter pile ups and / or build-up of chicken manure could represent a serious health and safety risk, and could also spread communicable diseases.	**-13 (MEDIUM)**	Flies and rodents should be controlled through the use of suitable hygiene management. All waste should be removed timeously and effectively. Poultry legislation best practice guidelines should be implemented, to reduce the ingress of pests into the broiler houses and/or abattoir, coupled with a regular pest and control program should pests become a concern.	**-5 (LOW)**
Sense of place – The surrounding area consists of agricultural holdings with several homes. The proposed agricultural activity will impact on the sense of place. However, the area is sparsely populated and is mainly agricultural holdings.	**-13 (MEDIUM)**	The exterior of the broiler houses and abattoir must be treated with a natural matt colour paint to reduce their long range visibility and to reduce their visual disruption. The noise and odour impacts also form part of this impact, they are mitigated under their own sections. It is recommended that a vegetative screen be planted between the development site and the nearest receptors where possible.	**-5.5 (LOW)**
Health impact – Scavenging, backyard and free ranging poultry production systems have, by definition, a much greater degree of contact with potential disease causing organisms than intensive indoor farming systems[1,2]. Outbreaks of infectious diseases would be minimised and remedied as specific by relevant legislation and best practice[3]. Chicken fatalities generated during operations would have to be disposed of and could potentially contribute to health and safety risk, such as attracting rodents and flies. 4. *Jacobs, R.D., Hogsette, J.A. and Butcher, G.D. (1997). Nematode Parasites of Poultry.* 5. *Permin A. and Hansen J.W. (1998). Epidemiology, diagnosis and control of poultry diseases. The need for a holistic view on disease problems in free-range chickens.* 6. *Permin A. and Hansen J.W. (1998). Epidemiology, diagnosis and control of poultry diseases. FAO Animal Health Manuals 4. Rome: Food and Agriculture Organization of the United Nations (FAO). 160 pp.*	**-13 (MEDIUM)**	The applicant must comply with relevant poultry legislation and Best Practice Guidelines and Animal Disease Act (Act 35 of 1984). The applicant must ensure that feral animals do not come into contact with the poultry. All regulatory requirements and relevant standards must be complied with for necessary fire prevention, detection and response at the farm. The poultry farm, abattoir, as well as any maintenance vehicles must be provided with adequate fire control equipment. The design and construction of all poultry farm and abattoir infrastructure must conform to the following fire safety standards and legislation: SANS 10089 (building code); Hazardous substances Act (Act 15 of 1973); Occupational Health and Safety Act (Act 85 of 1996); Fire Services (Act 99 of 1956); National Building Regulations (Act 103 of 1977. Fire extinguishers must be easily accessible on site.	**-5 (LOW)**
Odour nuisance – Raising of broilers is inherently an odour-producing. Odour is produced from the anaerobic decomposition of manure, spilt feed and other organic matter, as well as from the chickens and chicken respiration. The high moisture content in the litter assists this	**-13 (MEDIUM)**	Solid waste such as chicken manure, spilt chicken feed from the broiler houses must be cleaned every six weeks along with any liquid effluent such as waste water and blood from the abattoir which is to drain into the on-site septic tank prior to removal from site by a licensed contractor to	**-5.5 (LOW)**

biological reaction (anaerobic digestion). Odour emissions may have adverse impact on the existing sensitive uses beyond the broiler farm boundary if the infrastructure is not well located, designed, and operated. Generally, the greater the frequency, intensity, duration and offensiveness of the odour, the more likely it is to cause annoyance and lead to nuisance complaints.		prevent odour. ➢ None of the operational waste must be handled or treated on site. ➢ Safe waste disposal certificates and records must be kept on site to prove that licensed waste contractors were used for the removal and disposal of all waste from the broiler houses and the septic tank. ➢ The applicant to make provision for more regular waste removal if complaints of nuisance odour are received for neighbours.	

Alternative 2

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
[redacted]			

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

[redacted]

5.3 IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

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

Proposal (Poultry farm only)

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
DECOMMISSIONING			
Waste management	**-7.5 (LOW)**	➢ Prior to the decommissioning, a detailed decommissioning plan must be prepared. This plan should aim to follow the waste management hierarchy (reuse, recycle, reduce and dispose) in order to prevent unnecessary waste. ➢ All waste which requires disposal must be disposed of at a suitably licensed facility. ➢ An inventory of infrastructure and waste together with the ultimate destination (e.g. recycler, waste disposal) should be kept for future records. ➢ The sites must be rehabilitated to the pre-construction condition or alternatively to align with the surrounding land-uses at the time.	**-4 (LOW)**
Soil and water (surface and ground) pollution	**-8.25 (LOW)**	➢ Storage of hazardous substances prior to disposal must be done in accordance with best practice standards in a secure location isolated from direct contact with the soils and should be covered and within a bunded area where necessary. ➢ Pollution of surface water and aquifers is to be prevented at all costs.	**-4 (LOW)**

		➢ Concrete, cement and other hazardous substances during decommissioning must be stored in accordance with best practice standards and disposed of at a suitably licensed facility and by a licensed contractor.	

Alternative 1 (Poultry farm and abattoir)

Potential impacts:	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**
DECOMMISSIONING			
Same as above for the decommissioning of the activity proposal			

Alternative 2

Potential impacts:	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**

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

5.4 CUMULATIVE IMPACTS

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

The following impacts have been identified as cumulative in nature:

Impact	**Cumulative effect**
Odour nuisance and impact on sense of place.	If chicken manure as operational phase solid waste is not removed periodically the odour would be a cumulative impact to sense of place, in the form of nuisance pollution. Manure removal should be conducted more frequently if complaints are received.
Liquid effluent	Liquid effluent will accumulate in soil and water if not removed accordingly and regularly through the septic tank system into the municipal waste stream. This would negatively affect natural ecological processes over the long term.
Solid waste	Solid waste will accumulate over time if not regularly removed. This would negatively affect natural ecological processes over the long term as well as be a form of nuisance pollution. Solid waste from the poultry farm operations as well as liquid effluent to be drained into the septic tank and to be disposed of into the municipal waste stream. Domestic solid waste also be disposed of by a licensed contractor at a licensed landfill site/ disposal facility. Disposal record should be kept
Traffic impact	Vehicle trips (e.g. service trucks etc.) could impact on the accessibility, condition, and safety of existing access roads from the potential increase in traffic. Trips should be scheduled in a way that reduces the impact of noise and traffic.
Health impact / pest control	Health impacts and pest control will cumulatively increase if no action is taken in the event of an outbreak. Therefore all relevant Laws and Regulations governing the control and mitigation of health and disease

	related impacts must be abided by.

5.5 ENVIRONMENTAL IMPACT STATEMENT

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

Proposal (Poultry farm only)

Based on the findings of the impact assessment, all impacts identified specific to the activity proposal (poultry farm only) are considered to be of low significance after applying the recommended mitigation and management measures.

Table 8: Proposal Impact summary

Impact	No Go alternative	Proposal/ Preferred Alternative	
		Pre-mitigation	Post mitigation
Construction Phase	Baseline with both pre- and post-mitigation scores of zero, representing the status quo.		
Noise pollution		- 6.75	- 3.5
Dust pollution		- 4.5	- 3.5
Soil and water (surface and ground) pollution		- 8.25	- 4
Waste management		- 7.5	- 4
Traffic impact		- 4.5	- 3
Visual impact		- 8.25	- 4
Operational Phase			
Noise pollution		- 8.25	- 5
Traffic impact		- 8.25	- 4.5
Waste management		- 9	- 4.5
Soil and water (surface and ground) pollution		- 9.75	- 4.5
Pest control		- 9.75	- 5
Sense of place		- 9	- 5
Health impact		- 9.75	- 5
Odour nuisance		- 9.75	- 5
Decommissioning Phase			
Waste management and disposal		- 7.5	- 4
Soil and water (surface and ground) pollution		- 8.25	- 4
Total Impact Score		- 8.06 (LOW)	- 4.28 (LOW)

Alternative 1 (Poultry farm and abattoir)

Please refer to Section E2 above for the detailed explanation of the Impact Assessment Methodology applied.

Overall the activity alternative (poultry farm and abattoir) option has some impacts of medium significance. However, all these impacts can be managed through the implementation of the proposed mitigation measures. Please see below a summary of the identified impacts and their pre-mitigation and post-mitigation impact significance rating scores.

Table 9: Alternative Impact summary

Impact	No Go alternative	Proposal/ Preferred Alternative	
		Pre-mitigation	Post mitigation
Construction Phase			
Noise pollution	Baseline with both pre- and post-mitigation scores of zero, representing the status quo.	- 6.75	- 3.5
Dust pollution		- 4.5	- 3.5
Soil and water (surface and ground) pollution		- 8.25	- 4
Waste management		- 7.5	- 4
Traffic impact		- 4.5	- 3
Visual impact		- 8.25	- 4
Operational Phase			
Noise pollution		- 8.25	- 5
Traffic impact		- 8.25	- 5
Waste management		- 13	- 5.5
Soil and water (surface and ground) pollution		- 9.75	- 5
Pest control		- 13	- 5
Sense of place		- 13	- 5.5
Health impact		- 13	- 5
Odour nuisance		- 13	- 5.5
Decommissioning Phase			
Waste management and disposal		- 7.5	- 4
Soil and water (surface and ground) pollution		- 8.25	- 4
Total Impact Score		- 9.17 (LOW)	- 4.47 (LOW)

Alternative 2

[redacted]

No-go (compulsory)

The “No Go” or “No Action” alternative refers to the alternative of not embarking on the proposed project at all. This alternative would denote the current status quo without the proposed project. It is important to note that the No Go alternative is the baseline against which all other alternatives and the development proposal are assessed.

When considering the No Go alternative, the impacts (both positive and negative) associated with any other specific alternative or the current project proposal would not occur and in effect the impacts of the No Go alternative are therefore inadvertently assessed by assessing the other alternatives. In addition to the direct implications of retaining the status quo there are certain other indirect impacts, which may occur should the No Go alternative be followed.

The No-go alternative, as a specific alternative will not be considered further as the applicant is the owner of the property on which the proposal and alternative are proposed to be located and the applicant is in the business of poultry faming.

5.6 IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

See **Table 8** above for the summary of identified impacts and their significance rating before and after implementation of the suggested mitigation measures.

For alternative:

See **Table 9** above for the summary of identified impacts and their significance rating before and after implementation of the suggested mitigation measures.

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

Please note that from an environmental point of view although both the activity proposal and the alternative are considered viable options, the impacts identified for the activity alternative (poultry farm and the abattoir) have slightly higher total significance rating post mitigation than those of the activity proposal (poultry farm only).

Moreover, there was a strong objection to the activity alternative abattoir component by the local municipality's planning department (Emfuleni Local Municipality Town Planning) (see Appendix E4 for details of the objection).

Therefore, the activity proposal (poultry farm only) is identified as the most preferred activity with a lower impact on the receiving environment than the activity alternative (poultry farm and abattoir) without mitigation.

It is recommended that all mitigation measures suggested in the Sections 5.2 and 5.3 above as well as in the attached EMPR be considered at each phase (construction, operation and decommissioning) of the proposed development in order to reduce the significance of all identified impacts.

5.7 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 [redacted]

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

[redacted]

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 the management and mitigation measures listed in Section E2, must be implemented. In addition the general management and mitigation measures contained in the EMPR (Appendix H) must be complied with. The proposed activity proposal and alternative will not have highly significant and adverse impacts on the environment on condition that the recommended mitigation measures are implemented.

5.8 ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)

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

EMPR attached YES

6. SECTION F: APPENDICES

The following appendixes must be attached as appropriate:

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

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

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

Appendix G: Specialist reports

Appendix H: EMPR

Appendix I: Other information

CHECKLIST

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

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