

info@ekogroup.co.za
t +27(0)51 444 4700
f +27(0)86 697 6132
Suite 158 - Private Bag X01
BRANDHOF 9324
21 Dromedaris Street
Dan Pienaar
BLOEMFONTEIN 9301



Basic Assessment Report

PROPOSED EXPANSION OF CHICKEN HOUSES ON THE FARM DANIELS KUIL 391/RE, BLOEMFONTEIN

July 2014

Applicant:

Sunell Griesel Trust

Contact person
Postal Address

Mr. S. G. Griesel
P.O. Box 17349
Bainsvlei
9338

Tel:

082 801 1927

Prepared by:

EKO ENVIRONMENTAL

Contact person: Louis De Villiers
Postal Address: Suite 158
Private Bag X01
BRANDHOF
9324
Tel: (051) 4444 700
Fax: 0866976132
E-mail: louis@ekogroup.co.za

Contact information of Department of Economic Development, Tourism and Environmental Affairs (Free State):

Contact person: Ms. M. Gunundu
Tel: 051 400 4817

Reference No.: EMB/23(ii), 32(ii), 35/14/16

(For official use only)

File Reference Number:
Application Number:
Date Received:

| |
|--|
| |
| |
| |

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. 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.
3. Where applicable **tick** the boxes that are applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. 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.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

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

| | |
|--|----|
| | NO |
|--|----|

If YES, please complete the form entitled “Details of specialist and declaration of interest”

for appointment of a specialist for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail¹:

Construction Phase:

- Transformation of undeveloped land to agri-industrial use;
- Construction of 3 new chicken houses for the concentration of chickens exceeding 5 000 chickens per facility for the production of eggs;
- Expansion of the capacity of existing chicken houses on the farm;
- Establishment of storm water management measures; and
- Establishment and installation of all associated services (e.g. electricity and water supply).

Operational Phase:

- Total water consumption of 2 200 000 l/year/house (20 000 chickens). The water will be abstracted from existing boreholes on the farm.
- Disposal of general waste (e.g. paper, plastic, glass bottles, etc.) at the authorised landfill site in the region (i.e. Bloemfontein) on a regular basis;
- Storm water management such as diversion of clean storm water around the site to enter the natural drainage patterns;
- Upgrading of the existing access roads when necessary;

Decommissioning Phase:

No Decommissioning Phase is foreseen for the proposed project. However, should the houses be decommissioned in future and dependant on the end land use at the time, this phase will entail the demolishing of infrastructure and rehabilitation of the site.

Rehabilitation:

A rehabilitation plan will be developed should the houses be decommissioned and rehabilitation be implemented.

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

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

¹ Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

Describe 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 in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative

Note:

There is no feasible alternative for this project that will be assessed due to the following reasons:

Technology: It could be suggested that the condemned carcasses should be transported to a rendering plant. However, due to the type of egg production facilities to be used, it is not anticipated that more than two carcasses would have to be transported to a rendering plant on a weekly basis. As a medium sized rendering plant could process 12 tons per hour, it is evident that it is not economically viable to transport the carcasses to a rendering plant due to the predicted small number of mortalities. It should also be mentioned that a farmer agreed to use the carcasses to feed the lions on his farm.

Open chicken houses

Locality: The preferred site for the establishment of the houses is situated close to the water and electrical supply in order to cut extra costs. The houses will be built on previously disturbed land in order to limit the amount of natural vegetation that has to be removed to construct the houses. Due to the nature of the project (i.e. expansion of existing facilities) the proposed site is also located on a site where there are two existing chicken houses on the farm. Due to the high crime rate (i.e. theft) in the area, the applicant prefer the proposed site as it is located close to his personal residence in order for him to be aware of any activities at the chicken houses. There will be no environmental advantage in establishing the proposed houses on a different site on the farm.

Type: The applicant does not intent to apply for any other activity other than the chicken houses on the specific site.

Layout: The layout of the site is planned in such a manner to allow for proper management of storm water, minimum environmental impact and optimum use of the site.

No-go alternative: The “no-go” alternative will be considered throughout the assessment of the proposed project.

3. 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 degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Alternative:

Alternative S1² (preferred or only site alternative)

Alternative S2 (if any) N/A

Alternative S3 (if any) N/A

Latitude (S):

Longitude (E):

| | | | |
|-----|--------|-----|---------|
| 29° | 1.882' | 25° | 53.550' |
| | | | |
| 0 | ' | 0 | ' |

In the case of linear activities: N/A

Alternative:

Alternative S1 (preferred or only route alternative)

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

Alternative S2 (if any)

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

Alternative S3 (if any)

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

Latitude (S):

Longitude (E):

| | | | |
|---|---|---|---|
| 0 | ' | 0 | ' |
| 0 | ' | 0 | ' |
| 0 | ' | 0 | ' |

| | | | |
|---|---|---|---|
| 0 | ' | 0 | ' |
| 0 | ' | 0 | ' |
| 0 | ' | 0 | ' |

| | | | |
|---|---|---|---|
| 0 | ' | 0 | ' |
| 0 | ' | 0 | ' |
| 0 | ' | 0 | ' |

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

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1³ (preferred activity alternative)

Size of the activity:

| |
|--|
| Physical footprint Of a house: 720 m ² . Total site size: 2 ha to be transformed. 3 new houses will be constructed during the construction phase of the mentioned project. One of the existing houses is located on the proposed site. Please note that the proposed site has been disturbed by agricultural activities. |
| |

Alternative A2 (if any) N/A

² "Alternative S.." refer to site alternatives.

³ "Alternative A.." refer to activity, process, technology or other alternatives.

Alternative A3 (if any) N/A
or, for linear activities:

m²

Length of the activity:

Alternative: N/A

Alternative A1 (preferred activity alternative)
Alternative A2 (if any)
Alternative A3 (if any)

| |
|---|
| m |
| M |
| m |

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

Size of the site/servitude:

Alternative:

Alternative A1 (preferred activity alternative)
Alternative A2 (if any)
Alternative A3 (if any)

| |
|----------------|
| m ² |
| m ² |
| m ² |

5. SITE ACCESS

Does ready access to the site exist?

| | |
|-----|--|
| YES | |
|-----|--|

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

| |
|---|
| m |
|---|

Describe the type of access road planned:

Existing gravel road

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

6. SITE OR ROUTE PLAN

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

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by DWA);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre 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

6.11 the positions from where photographs of the site were taken.

7. SITE PHOTOGRAPHS

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

8. FACILITY ILLUSTRATION

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

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development phase of the activity?

What is the expected value of the employment opportunities during the development phase?

What percentage of this will accrue to previously disadvantaged individuals?

How many permanent new employment opportunities will be created during the operational phase of the activity?

What is the expected current value of the employment opportunities during the first 10 years?

What percentage of this will accrue to previously disadvantaged individuals?

| |
|---|
| ±R11 million |
| ±R360 000 Note: Employees at the chicken houses is also employed on the farm and will be paid for work done on the farm too. |
| NO |
| NO |
| Outside contractors is unknown. 4 Local people will be employed during construction (refer to quote in Appendix G) |
| Unknown: The outside contractor will be responsible to pay his workers. |
| 95% |
| ± 12 |
| ± R3 million |
| 90% |

9(b) Need and desirability of the activity

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

Note: The establishment of the chicken farm will provide people from the local community with temporary job opportunities during the Construction Phase (building and loading) and more permanent job opportunities during the Operational Phase (i.e. supervision, operation and labour). Apart from the direct job opportunities that will be

created with the commencement of this project, indirect job opportunities will also be created due to the potential extent of the project when fully operational.

As the population growth rate in South Africa increases, additional food resources are needed. Therefore, the additional food resources (eggs) may have a valuable contribution to the food security in South Africa.

NEED:

| | | | |
|----|--|--|----|
| 1. | Was the relevant provincial planning department involved in the application? | | NO |
| 2. | Does the proposed land use fall within the relevant provincial planning framework? | | NO |
| 3. | If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation: Currently, it is not required to involve the provincial planning department of the proposed establishment of the chicken egg production facilities as the area where the proposed development will take place is zoned as agricultural land. | | |

DESIRABILITY:

| | | | |
|----|---|-----|----|
| 1. | Does the proposed land use / development fit the surrounding area? | YES | |
| 2. | Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area? | YES | |
| 3. | Will the benefits of the proposed land use / development outweigh the negative impacts of it? | YES | |
| 4. | If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation: Note: The proposed area to be developed is zoned as agricultural land. The proposed development (establishment of egg production facilities) can be classified as an extension of the agricultural activities in the area. Therefore the proposed development conforms to the planning vision for the area (i.e. agricultural activities) | | |
| 5. | Will the proposed land use / development impact on the sense of place? | | NO |
| 6. | Will the proposed land use / development set a precedent? | | NO |
| 7. | Will any person's rights be affected by the proposed land use / development? | | NO |
| 8. | Will the proposed land use / development compromise the "urban edge"? | | NO |
| 9. | If the answer to any of the question 5-8 was YES, please provide further motivation / explanation. N/A | | |

BENEFITS:

| | | | |
|----|--|-----|--|
| 1. | Will the land use / development have any benefits for society in general? | YES | |
| 2. | Explain: The proposed houses will result in indirect job opportunities and economic opportunities since the project will require amongst other, construction material during the construction phase and other products (i.e. packaging, feed, etc.) during the Operational Phase. The proposed activity will provide an additional food resource for South Africans in general. The project will result in a major positive impact on the local and regional economy of the area. | | |
| 3. | Will the land use / development have any benefits for the local communities where it will be located? | YES | |
| 4. | Explain: The local community can buy eggs from the producer (i.e. the applicant). This means that the eggs can be bought at a lower price than in the commercial retail industry. Prices of eggs in the Bloemfontein area will be competitive if eggs are produced closer to the city as it | | |

| |
|--|
| will eliminate long distance delivery cost if eggs are produced far from the city. The proposed development will provide approximately 12 people from the local community with direct job opportunities during the Operational Phase. Approximately 48 people will benefit from the monthly income generated by one employee if an average family size of 4 people is considered. |
| |

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

| Title of legislation, policy or guideline: | Administering authority: | Date: |
|--|---|-------|
| National Environmental Management Act (Act 107 of 1998) | Department of Environmental Affairs and Tourism | 1998 |
| National Water Act (Act 36 of 1998) | Department of Water Affairs and Forestry | 1998 |
| Conservation of Agriculture Resources Act (Act 43 of 1983) | Department of Agriculture | 1983 |
| Occupational Health and Safety Act (Act 85 of 1993) | South African Department of Labor | 1993 |
| Meat Safety Act (Act 40 of 2000) | Department of Agriculture | 2004 |
| National Heritage Resources Act (Act 25 of 1999) | South-African Heritage Resources Agency | 1999 |

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

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

| | |
|--|----|
| | No |
|--|----|

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

| |
|----------------|
| m ³ |
|----------------|

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

No solid construction waste such as construction rubble will be generated during the Construction Phase of the project as there is no existing infrastructure that will be demolished. However, if any construction waste is generated, the waste will be collected and transported to an authorised landfill site in Bloemfontein or it will be used as filling material.

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

If any, the construction solid waste will be used as filling material or be disposed of at an authorised landfill site in the region.

Will the activity produce solid waste during its operational phase?

| | |
|-----|--|
| YES | |
|-----|--|

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

Each house (20 000 chickens) will produce approximately 14m³ of chicken manure/week (approximately 217m³/month for all houses on the farm)

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

Mortalities

- Mortalities left in the chicken facilities will pose a bio-security risk and need to be removed from the facilities. Normal daily mortalities will be collected on a regular basis and sold or given to a lion farmer in the nearby vicinity.
- Mass mortalities due to disease outbreaks are usually state controlled diseases (such as Newcastle (NCDV) or Avian Influenza (HPAI)). Mass mortalities will be investigated promptly and a regional state veterinarian will be informed immediately. The farm will be placed under quarantine if a state controlled disease is diagnosed. The carcasses will be removed under a permit to a location indicated by the state veterinarian.
- Cracked eggs will be frozen and sold to local individuals who will use it.

General waste:

- Chicken manure will be collected and used as fertilizer on the farm.
- Should it be decided upon not to utilize the manure on the fields of the applicant, the applicant will sell the manure as fertilizer.
- Any non-biodegradable waste will be collected and disposed of at the landfill site in Bloemfontein.

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

Please refer to above paragraph.

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

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

| | |
|--|----|
| | NO |
|--|----|

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

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

| | |
|--|----|
| | NO |
|--|----|

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

11(b) Liquid effluent

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

| | |
|--|----|
| | NO |
|--|----|

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

| | |
|--|--|
| | |
|--|--|

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

| | |
|--|----|
| | NO |
|--|----|

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

Note:

Chicken manure will fall onto a conveyor belt and be transported onto trucks outside the chicken houses. The truck will take the chicken manure directly to the land to be fertilized or the manure will be sold to other farmers in the area.

The manufacturer of the chicken houses confirmed that the new proposed houses will be dry-cleaned. Water will thus not be used to produce effluent. Due to the ventilation in the chicken houses, the manure will also be dry when it is removed from the houses.

Manure will be removed from existing houses by loading the manure from the floor with spades. Houses will then be cleaned with water under high pressure.

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:

Due to the nature of the activity, water will not be re-used but the water use will be minimised. Water consumption by chickens will be minimised through the use of drip systems where chickens will only use clean drops of water instead of water sitting in canals or feeding bowls, which are subjected to spillage.

11(c) 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:

| |
|--|
| |
|--|

11(d) Generation of noise

Will the activity generate noise?

| | |
|-----|----|
| YES | |
| | 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 noise in terms of type and level:

Note:

Noise generated at the chicken houses will be limited to construction noise during the construction phase. During the operational phase, noise will be limited to chicken noise associated with agriculture.

12. WATER USE

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

| | | | | | |
|-----------|-------------|-------------|----------------------------|-------|---------------------------------|
| municipal | water board | groundwater | river, stream, dam or lake | other | the activity will not use water |
|-----------|-------------|-------------|----------------------------|-------|---------------------------------|

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:

| |
|----------------|
| 675 250 litres |
| Yes |

Does the activity require a water use permit from the Department of Water Affairs?

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

Note:

There is an existing lawful use for water on the farm for irrigation. The Department of Water Affairs requested that a water use license application be submitted for the transfer of the water from irrigation to the use of the water for agri-industrial facilities. The application for the transfer of the water use was submitted to DWA on 17 July 2014 (Refer to Appendix E for proof).

According to the *Table of Average Daily Water Intakes for Livestock* on page 24 of the *South-African Water Quality Guidelines, Vol. 5: Agricultural; Use: Livestock Watering (DWAF, 1996)*, a mature chicken laying eggs will use on average 300ml water/day. If this is calculated, a chicken house of 20 000 chickens will use 2.19 million litres of water/year.

13. ENERGY EFFICIENCY

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

The chicken houses has block sides and 30mm isoboard under the roof sheets to insulate the houses to maintain their temperature.

The chicken houses was designed and will be constructed in such a manner not to require a boiler system to heat the house. Therefore, no fuel will be burned in order to heat the facility.

The facility will use electricity for the automatic opening and closing of the air vents in order to regulate the air temperature, moisture and air quality in the chicken house.

Each house will have a maximum draw of 35 amps as not all motors will run simultaneously.

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

No alternative energy source was considered at this stage, but may be considered in future.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

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

| | |
|-----|--|
| YES | |
|-----|--|

If YES, please complete the form entitled "Details of specialist and declaration of interest"

for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:

The Remainder of the Farm Daniels Kuil 391, Bainsvlei, Bloemfontein

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

N/A

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

Agriculture

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

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

| | |
|--|----|
| | NO |
|--|----|

Must a building plan be submitted to the local authority?

| | |
|--|----|
| | NO |
|--|----|

Locality map:

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

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

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

| | | | | | | | | | |
|------|------|---|------|---|-------------|-------|---|-------------|------------------|
| Flat | 1:50 | – | 1:20 | – | 1:15 – 1:10 | 1:10 | – | 1:7,5 – 1:5 | Steeper than 1:5 |
| | 1:20 | | 1:15 | | | 1:7,5 | | | |

Alternative S2 (if any): N/A

| | | | | | | | | | |
|------|------|---|------|---|-------------|-------|---|-------------|------------------|
| Flat | 1:50 | – | 1:20 | – | 1:15 – 1:10 | 1:10 | – | 1:7,5 – 1:5 | Steeper than 1:5 |
| | 1:20 | | 1:15 | | | 1:7,5 | | | |

Alternative S3 (if any): N/A

| | | | | | | | | | |
|------|------|---|------|---|-------------|-------|---|-------------|------------------|
| Flat | 1:50 | – | 1:20 | – | 1:15 – 1:10 | 1:10 | – | 1:7,5 – 1:5 | Steeper than 1:5 |
| | 1:20 | | 1:15 | | | 1:7,5 | | | |

2. LOCATION IN LANDSCAPE

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

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain
- 2.4 Closed valley
- 2.5 Open valley
- 2.6 Plain**
- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

| | Alternative S1: | Alternative S2 (if any): N/A | Alternative S3 (if any): N/A |
|--|------------------------|---|---|
| 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 | | |

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

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

Alternative S1: Preferred Site

| | | | | |
|--|------------------------------------|-------------------------------|-------------------|---------|
| Natural veld - good condition ^E | Natural veld with scattered | Natural veld with heavy alien | Veld dominated by | Gardens |
|--|------------------------------------|-------------------------------|-------------------|---------|

| | aliens ^E | infestation ^E | alien species ^E | |
|-------------|---------------------|--------------------------|------------------------------------|------------------|
| Sport field | Cultivated land | Paved surface | Building or other structure | Bare soil |

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

5. LAND USE CHARACTER OF SURROUNDING AREA

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

Alternative S1: Preferred Site

5.1 Natural area

5.2 Low density residential (Farm house and employee houses)

5.3 Medium density residential

5.4 High density residential

5.5 Informal residential^A

5.6 Retail commercial & warehousing

5.7 Light industrial

5.8 Medium industrial^{AN}

5.9 Heavy industrial^{AN}

5.10 Power station

5.11 Office/consulting room

5.12 Military or police base/station/compound

5.13 Spoil heap or slimes dam^A

5.14 Quarry, sand or borrow pit

5.15 Dam or reservoir

5.16 Hospital/medical centre

5.17 School

5.18 Tertiary education facility

5.19 Church

5.20 Old age home

5.21 Sewage treatment plant^A

5.22 Train station or shunting yard^N

5.23 Railway line^N

5.24 Major road (4 lanes or more)^N

5.25 Airport^N

5.26 Harbour

5.27 Sport facilities

5.28 Golf course

5.29 Polo fields

5.30 Filling station^H

5.31 Landfill or waste treatment site

5.32 Plantation

5.33 Agriculture

5.34 River, stream or wetland

5.35 Nature conservation area

5.36 Mountain, koppie or ridge

5.37 Museum

5.38 Historical building

5.39 Protected Area

5.40 Graveyard

5.41 Archaeological site

5.42 Other land uses (existing chicken egg production facilities)

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

N/A

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

N/A

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

N/A

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including

NO

Archaeological or palaeontological sites, on or close (within 20m) to the site?

If YES, explain:

N/A

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

Briefly explain the findings of the specialist:

Dr. Lloyd Rossouw recommended that the site be exempted from a Phase 1 Heritage Impact Assessment as the potential archaeological impact at the site is considered to be non-existent. According to Dr. Rossouw the likelihood of palaeontological impact on bedrock sediments underneath the agricultural overburden is considered to be extremely low. The exemption letter is attached in Appendix D.

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

NO

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

NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
 - (i) one local newspaper; or

- (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person desires of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The 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, ratepayers associations and traditional authorities where appropriate. 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.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in

the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

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.

List of authorities informed:

- Municipal Manager: Mangaung Metropolitan Municipality
- Municipal Ward Councillor (Ward 26): Mangaung Metropolitan Municipality
- Environmental Department: Mangaung Metropolitan Municipality
- Planning Department: Mangaung Metropolitan Municipality
- Director Land Use and Soil Management: Department of Agriculture
- Provincial Manager, Free State: South African Heritage Resources Agency
- Department of Water Affairs (DWA)

List of authorities from whom comments have been received:

- The Department of Water Affairs requested telephonically that the applicant make a transfer of his water use from irrigation to agri-industrial,
- Mangaung Metro Environmental Department requested more information regarding the project in the form of the environmental reports.
- During a site visit to the proposed site on 30 May 2014, the Department of Agriculture requested that a berm or trench be constructed to collect storm water from the site to prevent it from entering the pan.
- (Refer to Appendix E for public consultation)

- An application for the transfer of the water rights was submitted to the DWA on 17 July 2014.
- The BAR was submitted to Mangaung Environmental Department for their review.
- Confirmation was given to the Department of Agriculture that the site will be clean and storm water will not be contaminated as manure is loaded on trucks directly from the house and not stored or disposed of on site. The BAR was sent to Department of Agriculture.
- (Refer to Appendix E for public consultation)

7. CONSULTATION WITH OTHER STAKEHOLDERS

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

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?

| | |
|--|----|
| | NO |
|--|----|

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

| |
|-----|
| N/A |
|-----|

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

No comments have been received from adjacent landowners.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Appendix E):

N/A

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

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Alternative (preferred alternative)

| <u>Potential Impacts</u> | <u>Recommended mitigation measures</u> |
|---|--|
| <p>Planning and Design Phase <i>Direct impacts:</i> None <i>Indirect impacts:</i> None <i>Cumulative impacts:</i> None <i>No-go:</i> None</p> <p>Construction Phase <i>Direct impacts:</i></p> <ul style="list-style-type: none"> - Removal of topsoil and potential loss thereof. - Destruction of habitat for small animals. - Possible change in the natural storm water drainage pattern. - Noise elevation due to construction activities. - Nuisance dust generation. - Possible damage to palaeontological heritage during excavation activities. <p><i>Indirect impacts:</i></p> <ul style="list-style-type: none"> - Potential erosion of the exposed soil. - Possible dumping of construction rubble and general waste on site. - Possible spillage of products like paint, oil, cleaning agents etc. which may lead to water and/or soil contamination, - Possible spillage of untreated sewage to the surrounding environment. | <p>Planning and Design Phase No impacts expected</p> <p>Construction Phase</p> <ul style="list-style-type: none"> - The surface of the site will be levelled to ensure a free-draining surface to prevent ponding of surface water as well as to limit erosion. - During construction, storm water measures such as channels, diversion berms, etc. will be constructed around the construction site in order to limit and/or prevent erosion and separate clean and dirty runoff. - A speed limit will be enforced on the construction vehicles. - Construction activities will be limited to daytime to limit any disturbance to neighbouring landowners. - Dust control measurements will be investigated if nuisance dust generation during construction proves to be problematic. - SAHRA will be notified should traces of any palaeontological heritage be found during construction. - No construction and / or any other waste may be dumped in the veld. |

- Deterioration of the access road as a result of an increase in construction vehicles to the site.

Cumulative impacts:

- None

No-go:

- Loss of job opportunities that will be associated with the Construction Phase.

Operational Phase

Direct impacts:

- Potential pollution to storm water if proper storm water management measures are not implemented.
- Potential water pollution may occur if manure from the operation is not managed appropriately.
- Mortalities left in the chicken facilities will pose a bio-security risk and need to be removed from the facilities.
- Possible dumping of damaged eggs on site may result in health risks and bad odours.
- Possible dumping of condemned carcasses on site may result in health risks and bad smelling odours.
- Possible dumping of general waste on site.
- Potential pollution to the surrounding environment due to raw sewage spills.
- Pests (i.e. rats and flies) may become problematic at the chicken houses.

Indirect impacts:

- Possible generation of bad smelling odour if proper waste management is not implemented.
- Deterioration of the access road as a result of an increase in traffic and heavy vehicles to the site.

Cumulative impacts:

- None

No-go:

- Although no environmental impacts will occur if the no-go alternative is decided on, the opportunity to provide fresh eggs to the area and create a drop in the cost of eggs, which will have a positive influence in the society, will be lost. The opportunity to provide people from the local community with job opportunity in the operational phase will also be lost.

Decommissioning and Closure Phase

Direct impacts:

- No Decommissioning Phase is foreseen for the

- All spills should be cleaned immediately
- All building rubble will be removed by the contractor on a regular basis and disposed of at an authorised landfill site in Bloemfontein or used as filling material during construction.
- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the region.
- Temporary toilets should be placed on site for use by construction workers. Sewage from these toilets should be managed appropriately and not be disposed of on site or the surrounding environment.

Operational Phase

- The storm water management measures that will be constructed and implemented during construction will be maintained and repaired when necessary.
- The effluent (wash water) from the process will be insignificant as it is in very small quantities.
- Damaged eggs will be frozen sold to local bakeries or people. This will ensure that less material is wasted, and limit odours produced during the operational phase of the proposed activities.
- Condemned carcasses will be placed in freezers on the site and will be collected by the lion farmer.
- Mortalities left in the chicken facilities will pose a bio-security risk and need to be removed from the facilities. Normal daily mortalities will be collected on a regular basis and given to a lion farmer in the nearby vicinity.
- Mass mortalities due to disease outbreaks are usually state controlled diseases (such as Newcastle (NCDV) or Avian Influenza (HPAI)). Mass mortalities will be investigated promptly and a regional state veterinarian will be informed immediately. The farm will be placed under quarantine if a state controlled disease is diagnosed. The carcasses will be removed under a permit to a location indicated by the state veterinarian.
- The chicken manure will be recycled and used as fertilizer.
- General waste (i.e. paper, plastic, glass bottles, etc.) will be collected in receptacles on site. These receptacles will be emptied and the waste disposed of at an authorised landfill site on at least a weekly basis (or when necessary).
- The access road will have to be upgraded when necessary.
- Toilets will be supplied to employees to be used.
- The landowner has many cats on the farm for the purpose of catching mice and/or rats. Larvadex (i.e. premix) is used to control certain fly species

Decommissioning and Closure Phase

- Should the houses be decommissioned in future, a Rehabilitation Plan dependant on the end land use will be

| | |
|-------------------|--|
| proposed project. | developed and be submitted to the Department for approval. |
|-------------------|--|

3. ENVIRONMENTAL IMPACT STATEMENT

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

The likelihood of the expected impacts actually occurring will be small and limited if all the recommended mitigation measures are implemented throughout all the phases of the project. Impacts that will be associated with the Construction Phase will be temporary of nature. Although the activities that will be associated with the Operational Phase will be permanent, the potential impacts expected to be associated with this phase will be temporary and local in nature if the recommended mitigation measures are implemented. If proper management of any waste (including general and animal waste) and pests (e.g. flies and rats) is implemented, the likelihood of the potential impacts actually occurring will be low. In conclusion, if all the recommended measures are implemented, the significance of the impacts expected to be associated with the proposed houses will be low.

Alternative A (preferred alternative)

As above

No-go alternative (compulsory)

No environmental impact will occur as a result of the no-go alternative. However, the opportunity to create an opportunity for chicken egg farmers in the area to lower costs and provide people from the local community with job opportunities that will be associated with the Operational Phase will be lost. Furthermore, should the no-go alternative be decided on, the current chicken houses will not be able to increase its capacity.

SECTION E. RECOMMENDATION OF PRACTITIONER

Are 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 | |
|-----|--|

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

N/A

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

In addition to the recommended mitigation and management measures described in Part 2 of Section D, the following conditions are recommended:

Specific

- No operation will commence without the necessary Environmental Authorisation.

General

- Measures to manage storm water and waste (general and condemned carcasses) will be implemented and maintained to limit and/or prevent erosion, pollution and disease.
- Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at an authorised landfill site in Bloemfontein.
- All condemned carcasses will be placed in leak proof freezers and managed appropriately until removed from site.
- No construction and / or any other waste will be dumped in the veld or on site.
- SAHRA will be notified should traces of any paleontological heritage be found during construction.
- Temporary toilets will be placed on site during the construction phase and any sewage should be managed appropriately and should not be disposed of on site or the surrounding environment.

Is an EMPr attached?

| | |
|-----|--|
| YES | |
|-----|--|

The EMPr must be attached as Appendix F.