



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT
OF
**ECONOMIC DEVELOPMENT,
ENVIRONMENT & TOURISM**

BASIC ASSESSMENT REPORT (DRAFT)

PROPOSED POULTRY FARM ON PORTION 35 OF THE FARM SPRINGBOKVLAKTE NO. 41 JR

BELA-BELA LOCAL MUNICIPALITY, WATERBERG DISTRICT, LIMPOPO PROVINCE



PREPARED FOR

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[JUNE 2017]

The heartland of southern Africa – development is about people!



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BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

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

File Reference Number:

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NEAS Reference Number:

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

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1. The report must be compiled by an independent Environmental Assessment Practitioner.
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3. Where applicable **tick** the boxes that are applicable in the report.
4. 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 Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.

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7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

<p><u>Postal Address:</u></p> <p>Central Administration Office Environmental Impact Management P. O. Box 55464 POLOKWANE 0700</p>	<p><u>Physical Address:</u></p> <p>Central Administration Office Environmental Affairs Building Cnr Suid and Dorp Streets POLOKWANE 0699</p>
<p>Queries should be directed to the Central Administration Office: Environmental Impact Management:-</p> <p>For attention: Mr E. V. Maluleke</p> <p>Tel: (015) 290 7138/ (015) 290 7167</p> <p>Fax: (015) 295 5015</p> <p>Email: malulekeev@ledet.gov.za</p>	

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CONTENTS

TABLE OF FIGURES.....	5
SECTION A: ACTIVITY INFORMATION	6
Site alternatives	9
DESCRIPTION OF THE BIOPHYSICAL ENVIRONMENT OF THE SITE	10
Site location	10
Topography and geology.....	11
Hydrology.....	12
Flora & Fauna	12
Activity Alternatives	12
Layout alternatives.....	13
Technological & Structure alternatives.....	14
Section B: SITE/AREA/PROPERTY DESCRIPTION.....	25
SECTION C: PUBLIC PARTICIPATION	30
SECTION D: IMPACT ASSESSMENT	34
1. Construction Phase	39
1A Impacts that may result during the Construction phase (Proposal)	39
1A. Summary of potential impacts and their ratings Alternative A (Preferred alternative)	40
Narrative of Impact Assessments (Construction Phase) – ALTERNATIVE A (THE PROPOSAL)	41
1b. ALTERNATIVE B (REPEAT THIS TABLE FOR EACH ALTERNATIVE)	50
2. OPERATIONAL PHASE	60
2A: Impacts that may result during the operational phase PROPOSAL (THE PROPOSAL)	60
2c No Go Alternative	66
2. B. Alternative B (Land alternative WITH MANUAL OPERATIONS) REPEAT THIS TABLE FOR EACH ALTERNATIVE ..	68
1c. No Go ALTERNATIVE	77
3. Environmental impact statement	84
SECTION E. Recommendation of practitioner.....	87
Section F: Appendixes	88
SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER.....	89
Appendixes.....	90
Appendix A: Site plan(s)	92
Appendix B: Photographs.....	95
Appendix C: Facility illustration(s).....	98
Appendix D: Specialists report	101
Appendix E: COMMENTS AND RESPONSE REPORT (PUBLIC PARTICIPATION REPORT)	102
ENVIRONMENTAL MANAGEMENT PROGRAMME	115

I.	Glossary of Terms and Abbreviations (See Annexure A)	117
II.	Key to Acronyms	117
SECTION 1: INTRODUCTION		118
1.1.	Background	118
1.2	Aims and objectives of the EMPr	118
1.2.1	Aim	118
1.2.2	Objectives	118
SECTION 2: REGULATORY / LEGISLATIVE CONTEXT		119
DEALING WITH NON-COMPLIANCE WITH THE EMPr (Penalties/ Incentives)		119
2.1	Key Legislation and Regulatory Requirements	119
2.1.1	National Environmental Management Act No. 107 of 1998	119
2.1.1.1	Penalties for non-compliance	119
2.1.2	National Heritage Resources Act No. 25 of 1999	119
2.1.2.1	Penalties for noncompliance	119
2.1.3	Occupational Health and Safety Act No. 85 of 1993	120
2.1.3.1	Penalties for noncompliance	120
2.1.4	Other necessary legislations but not limited to:	120
2.2	KEY ROLE PLAYERS AND THEIR RESPONSIBILITIES	120
SECTION 3: SENSITIVE AREAS OF THE PROJECT AREA		120
3.1	The Development site	120
3.2	Protecting the Integrity of the Ecosystem of the project site	121
3.4	Ensuring Health and safety	122
5. CONCLUSIONS AND RECOMMENTATIONS		143
Annex A: Glossary		143
ANNEX 2: CHECKLIST FOR MONITORING ENVIRONMENTAL PERFORMANCE		147

TABLE OF FIGURES		
Figure 1	Production Process Flow	7
Figure 2	Site for the development	10
Figure 3	Farm location aerial Map	11
Figure 4	Site topography is mostly flat	11
Figure 5	Facility Conceptual Layout	13
Figure 6	Layout for Site Alternative B	14
Figure 7	Automated housing typology	15
Figure 8	Manual Operated and Natural ventilation houses	16
Figure 9	Proposed site alternative A (Preferred alternative)	39

SECTION A: ACTIVITY INFORMATION

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

YES	NO
-----	----

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

Greenco Farm Produce (PTY) LTD, represented by Mr Innocent Dube intends to establish a poultry farm on portion 35 of the farm Springbokvlakte NO. 41 JR, within the Waterberg District Municipality. The farm currently is primarily being used for crop production, specifically for the production of vegetables.

The poultry production will entail procurement of chicken stock, and growing them for egg production. The chickens will usually be kept for laying eggs for between 8 to 12 months and then sold as cull hens for meat after the egg production cycle. The development is intended to be undertaken on a footprint of about 4.75ha. Total size of the farm is about 21ha of land.

- The development will consist of four automated layer houses, which will be in the form of layer battery cages. These will accommodate about 50 000 layers per house.
- The cages will be made up of cells which accommodate between 5 to 8 layers each.
- The houses will be operated using a full automation system. The automation system will allow for the full auto-control of the production operations that will include feeding, medicating, egg collection and sorting, and also cleaning of chicken waste. House specifications are shown in Appendix D – Facility illustration.

Infrastructure details:

The proposed infrastructure will contain

- Chicken houses (4 X) - fully automated - Consisting of
 - 5 tier 3 rows vertical cages with belt clean out system
 - Drinking system
 - Feeding system
 - Egg Collection system

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.

- Manure Removal System
- Electric control Panels
- Steel support structure
- Concrete block walls,

The Operational design is illustrated in the diagram 1 below.

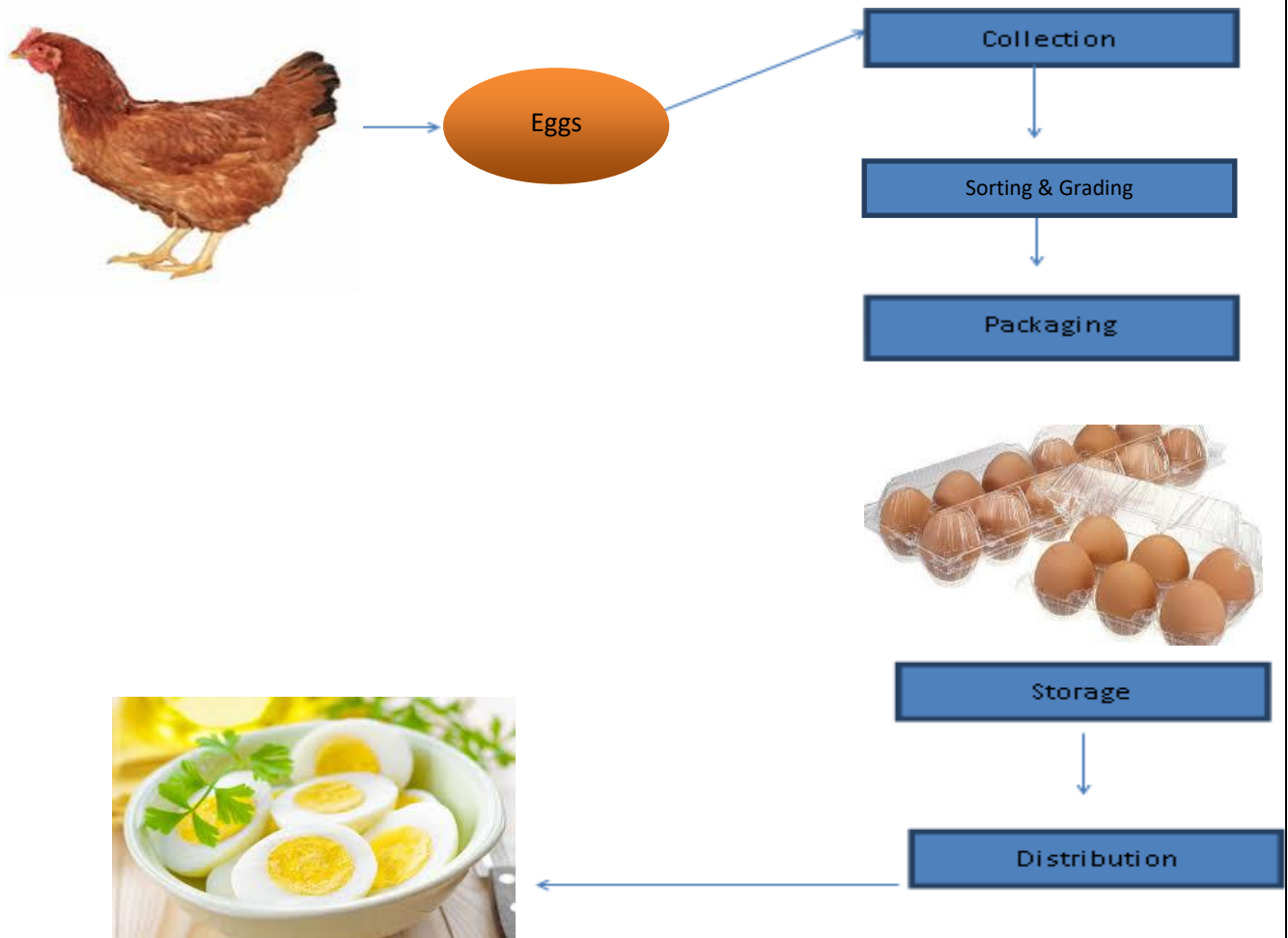


Figure 1 Production Process Flow

This poultry farm will primarily benefit the local economy of the Waterberg District municipality and the Limpopo Province by providing some employment and also contributing to food security of the regions, and eventually contributing to the total economic uplift as production moved along the socio economic value chain.

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.

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 Department 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.

No	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other (provide details of “other”)	Description
1	<p>Proposal :</p> <p>Construction of about 200000 layer holding capacity, environmentally controlled (automated) poultry houses</p>	<p><u>Greenco Poultry Farm , on Plot 47 Springbokvlakte</u></p> <p>The project focuses on producing quality products, to provide exciting meal solutions for consumers all over Limpopo and ultimately South Africa as whole. Greenco Farm Produce (PTY) LTD intends to support the community at large in Limpopo province through job creation and social investment. Greenco Farm Produce (PTY) LTD will be able to provide employment of direct jobs and in excess of 500 indirect jobs in the long run, to all citizens of the Limpopo Province.</p> <p>Commercial layer strains are now available with traits of high egg production and high feed conversion efficiency. Depending on the farm-size, layer (for eggs) farming can be main source of family income or can provide income and gainful employment to farmers throughout the year. Poultry manure has high manure value and can be used for increasing yield of all crops.</p> <p>The project is expected to achieve the following goals:</p> <ul style="list-style-type: none"> • Commence high value poultry and commercial egg production • Supply local market with competitive prices

		<ul style="list-style-type: none"> • To empower women and youth • To create sustainable employment for women and youth • To contribute towards poverty alleviation <p>It is expected that the farm poultry production will engage in a typical year, about 21 fulltime workers and about 6 seasonal workers will be employed, in addition to the adhoc employment opportunities that will be created as and when needed. It is estimated that the farm project will initially (first year) create 4workers in the 2 houses (60 females and 40% males), pack house with 4 workers and 3 office administrators. However the stall will create 2 workers. The project intends to increase the staffing during peak season by 6.</p> <p>There will be 1 project advisor for the first year of the operation of the project that has been identified. He has vast knowledge in the poultry industry and is currently serving in the South Africa Poultry Association who is currently running a similar project that has been in operation for the past decade</p> <p><u>The Status Quo</u></p> <p>The farm on which the development is being contemplated is an existing farm which is currently being used for vegetable production. The cultivation occupies about two-thirds of the property. The farm is currently operational and is equipped with basic services such as electricity and water. Source of water is boreholes that yields an unknown amount of water, but as required at the time to service the farm. There is also a large concrete reservoir that is to be cleaned up for backup water storage. The entire farm is about 21ha in extent.</p>
	Description of the receiving environment on this property	<div style="background-color: #4F81BD; color: white; padding: 5px;">SITE ALTERNATIVES</div>

It was indicated that the portion on the northern end of the farm is allocated for the poultry farm. For the purpose of this assessment, we denote as **SITE A** (see Figure 1.



Figure 2 Site for the development

A site alternative is located on the southern sections for the farm (see Figure 2) and this we call site **Alternative B**. This portion is previously cultivated. This piece of land is currently vacant and is earmarked for cultivation in the interim.

DESCRIPTION OF THE BIOPHYSICAL ENVIRONMENT OF THE SITE

SITE LOCATION

The site is located on Portion 35 of the farm Springbokvlakte No. 41 JR which falls within the Bela-Bela Local Municipality in Waterberg District Municipality of Limpopo Province. The farm is situated about 26km south of Bela-Bela town. The Farm is accessible via a local road which extends from the R101 after off-ramping the N1. The GPS Coordinates of the Farm are 250 06'56.3\"S and 280 19'32\"E. The size of the farm is about 21.33 ha, but it is envisaged that between 6ha-10 ha may be required for the proposed development. The farm is surrounded by other farms, a game ranch and other small holdings. Site locality map is attached in Appendix 1 (Site Plans).



Figure 3 Farm location aerial Map

TOPOGRAPHY AND GEOLOGY

The site under study is located on a mostly flat terrain with a few gentle sloping areas. No steep areas exist on the site. Slope is not likely to be an issue for any infrastructural development, given the flat nature of the land. Figure 2 is a photograph of portion of the farm and depicting the topographical character of the site.



Figure 4 Site topography is mostly flat

HYDROLOGY

The flattish to gentle sloping nature of the site gives rise to no clear drainage systems or watercourses on the site. Also, observations during site visit did not reveal any significant hydrological features. However, storm water management needs to be incorporated into the planning of the proposed developed given the suspicion that the water table may be high just below the loamy clay topsoil.

FLORA & FAUNA

In terms of the South African Biodiversity Institutes (SANBI) classification, vegetation on the site is classified as the Springbokvlakte Thornveld (SVCB 15) which falls within the savanna vegetation biome (Mucina, L. & Rutherford, M. C., 2006; SANBI, 2016), please refer to map 2). The character of the vegetation on the site consists of shrubby grasslands, dominated by short acacia species. The vegetation type is known to usually occur within flat to slightly undulating plains, with scattered alien species including isolated occurrence of *Lantana camara*, *Sesbania punicea* and *Melia azedarach*. It was observed during site visit that the vegetation on the site is cleared on the southern half of the site and the mid portions have been ploughed for vegetable production. Indigenous vegetation however remains on the northern segments where the proposed poultry houses are earmarked to be situated.

ACTIVITY ALTERNATIVES

Only one activity alternative is being undertaken on the farm currently. The farmer indicated that he is more interested in **poultry / egg production** rather than any other activities on this portion of the site.

The activity that could be undertaken on the piece of land could be cultivation for **crop production**. This is currently being undertaken on the other portions of the farm.

According to the farmer, if the portion of the farm is not used for the poultry production, then it could be used to produce more vegetables. If that would not happen, then the land would lie fallow (no go alternative). Given that the farm is already undertaking vegetable production irrespective of whether the poultry activity is being undertaken or not, the poultry farming and the crop production are seen rather as complementary activities rather than alternative activities. This is because it is not a matter of choosing one over the other.

From this perceptive, only the poultry activity is accessed in this assessment as an activity alternative.

The poultry production will include establishing about 4 poultry houses to keep about 200,000 layer chicken. The entails of the activities are discussed in the activity description section earlier. Specifically it will entail:

- Chicken houses (4 X) - fully automated - Consisting of
 - 5 tier 3 rows vertical cages with belt clean out system
 - Drinking system
 - Feeding system
 - Egg Collection system
 - Manure Removal System
 - Electric control Panels
 - Steel support structure
- Concrete block walls,

LAYOUT ALTERNATIVES

Currently, the layout of the facilities are yet to be architecturally confirmed. However, a concept plan disclosed by the proponent is shown in the activity illustration in the Appendixes. It should be noted that the direction of the structures may be slightly moved about or adjusted within the development footprint. Since these possible alignments are literally of numerous possibilities, only the currently agreed on layout is discussed in this assessment.

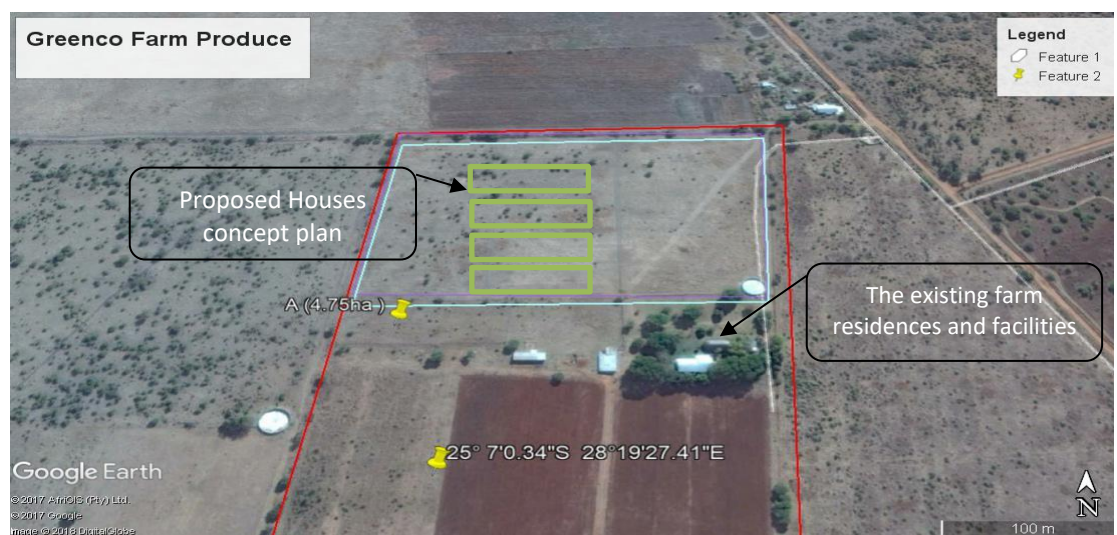


Figure 5 Facility Conceptual Layout

It is noted however that the above layout is not necessarily the final. The positions and the directions of the facility may change if necessary, but will be within the demarcated development footprint as shown in Figure 5.

Figure 6 Shows the proposed layout for alternative B, which will include similar structures but without mechanisation. Here, in order to utilise the existing access road either within the farm, or along the fence, the facilities are placed in a way that would be



Figure 6 Layout for Site Alternative B

TECHNOLOGICAL & STRUCTURE ALTERNATIVES

Various technologies of keeping poultry exists. Most of these inherently prescribe the nature of the housing infrastructure used. The common on these include the

- Environmentally controlled houses, and
- Natural /manually ventilated and managed houses.

Details of the housing specifications are provided in Appendix 3 (Facility Illustration).

Environmentally control houses

Environmentally controlled houses are those where the operations are programmed and run mostly with automation and controlled by a programmed computer.


In this case, activities such as feeding, watering, collection of eggs, sorting and packaging are undertaken through conveyer belts and other machines within the automated system. Ventilation and temperature are regulated and controlled through a digital monitor. The infrastructure proposed to carry out this mechanisation is shown in Figure 7 and also further illustrated in appendix C, **facility illustration**.



Figure 7 Automated housing typology

Even though the farmer does not officially plan for the alternative of manual operation on the farm, in order to discount the objectivity of the chosen technology, it is considered prudent to undertake include the alternative of manual operation for comparative analysis.

In view of the above, the manual or _non-Mechanised operational poultry facility is discussed as the alternative for the automated or mechanised production system. The Non-Mechanised production will be considered for site alternative be.

2	Alternative B	<p>Manual operated and Natural Ventilated Houses (on site B)</p> <p>This types of houses entail, having chicken cages that are maintained and run manually, by the farm personnel. Production and operation, including ventilation and temperature controls are undertaken by manual labour. Farmers close and open ventilation systems when needed and close them when deemed apprioriate. Feeding, medication and waste removal is undertaken manually.</p> <p>The facility is thus designed for such an operation. This consists 1-1.5 m tall, topped by concrete walls, with plastic rolled side covers for ventilation.</p>  <p>Figure 8 Manual Operated and Natural ventilation houses</p> <p>In this case, the cages will be equipped with feeding troughs that will be fed manually. The eggs will be collected manually and a feeding into a sorting and grading machine. After sorting, there will be manual packaging of the eggs into creates for dispatch.</p> <p>The house will be cleaned manually, using shovels and other cleaning equipment.</p> <p>This will require extensive labour, which on the positive side will lead to more job creation, but from the perspective of the farmer will be quire costly and also introduces a host of risk factors into the production system.</p> <p>A disadvantage of the manual process also is the fact that, the movement of more people to and from the houses will introduce more risk factors including disease transportation. On the social side, a more stringent administrative and human resource management strategies needs to be put in place to ensure smooth running of operations. Also more administrative and operational systems need to be put in place to ensure activities are done without glitches that will disrupt production.</p>
3	Alternative C	
	Etc.	

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

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, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek 94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Latitude (S): **Longitude (E):**

Alternative:

Alternative S1² (preferred or only site alternative)

25°	06'	56.3"S	28°	19'	51,65"E
°25	'7	"4.86	°28	'19	"29.05
°	'	"	°	'	"

Alternative S2 (if any)

Alternative S3 (if any)

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

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

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

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

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

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

Alternative:

Alternative A1³ (preferred activity alternative)
 Alternative A2 (if any)
 Alternative A3 (if any)

Size of the activity:

4.75 ha
4ha
m ²

or,

for linear activities:

Alternative:

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

Length of the activity:

m
m
m

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

Alternative:

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

Size of the site/servitude:

21ha
m ²
m ²

5. SITE ACCESS

Does ready access to the site exist?

YES	
m	

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

Describe the type of access road planned:

N/A. There is an existing access to the site.

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

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

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 Department of Water Affairs);
 - 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.

11. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

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

R17 000 000.00

What is the expected yearly income that will be generated by or as a result of the activity?	R6 000 000 .00
Will the activity contribute to service infrastructure?	YES
Is the activity a public amenity?	YES
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?	R 1500 000
What percentage of this will accrue to previously disadvantaged individuals?	100%
How many permanent new employment opportunities will be created during the operational phase of the activity?	10
What is the expected current value of the employment opportunities during the first 10 years?	Unknown
What percentage of this will accrue to previously disadvantaged individuals?	90%

9(b) Need and desirability of the activity

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

NEED:			
i.	Was the relevant municipality involved in the application?	YES	NO
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	YES	NO
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		

DESIRABILITY:			
i.	Does the proposed land use / development fit the surrounding area?	YES	NO
ii.	Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?	YES	NO
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	NO
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		

v.	Will the proposed land use / development impact on the sense of place?	YES	NO
vi.	Will the proposed land use / development set a precedent?	YES	NO
vii.	Will any person's rights be affected by the proposed land use / development?	YES	NO
viii.	Will the proposed land use / development compromise the "urban edge"?	YES	NO
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

BENEFITS:			
i.	Will the land use / development have any benefits for society in general?	YES	NO
ii.	<p>Explain: The proposed development will benefit the society by increasing the food security as there will be an increase in the production of eggs and chicken meat. It will also contribute to the country's economy by contributing to socio-economic stimulation through employment provision and also increase in agricultural outputs.</p>		
iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES	NO
iv.	<p>Explain: Both the construction and operational phases of the proposed development are likely to create additional jobs for the local community. Jobs will be created during construction as labours, masons and other workers may be required.</p> <p>Expansion of services will mean that more hands will be required, especially where automation is not going to be used. This is likely to impact positively on the local economy as more people getting employment may spiral some level of livelihood improvement.</p> <p>The spill over of the construction stage employment and sourcing of materials from local suppliers will go a long way in providing socio-economic benefit to the community as a whole. More income in the pocket of community members means, more purchasing power, leading to the stirring of economic acidity in the local economy.</p>		

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 Environment Management Act, 1998 (Act No. 107 of 1998 as amended)	National & Provincial: Department of Environment Affairs	27 November 1998
National Environment Management Act EIA Regulations (8 December 2014)	National & Provincial: Departments of Environmental Affairs (Gauteng Department of Agriculture and Rural Development - GDARD).	8 December 2014
National Water Act, 1998 (Act No. 36 of 1998) as amended	National & Provincial	26 August 1998
National Environmental Management: Waste Act (Act No. of 59) as amended	National & Provincial: Department of Environment Affairs	2008
National Heritage Resources Act (Act 35 of 1998)	South African Heritage Resources agency	28 April 1999
National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004).	National & Provincial	2004
National Development Plans	National Governments	2012
Regional integrated Development Plans: Region 2	Provincial Governments	2014
Gauteng Conservation- Plan 3.3 (2011) Provincial 2011	Provincial (GDARD)	2011

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

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

YES	NO
m ³	

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

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

Waste that will be generated at construction stage is likely to consist mainly of rubble, material packages (cardboards and wraps) and also domestic waste that might be generated by the construction staff. This waste will be collected and placed inside waste management bins that will be provided.

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

The construction solid waste will be disposed of at the nearest registered landfill site.

Most of the waste that will be generated will be rubble which will be recycled. Other non-degradable waste such as wrappers and tins will be gathered and disposed of in the nearest waste disposal site around Bela Bela or within Waterberg Region.

Will the activity produce solid waste during its operational phase?

YES	NO
m ³	

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

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

There are different waste products that will be produced during the operation of the farm. This will be in the form of chicken droppings, feathers and carcasses. The domestic waste generated will be cleaned and collected by the local staff working on the farm. The waste produced will be transported to a permitted landfill site that is near to the farm. In most cases the chicken dropping will be collected and stockpiled into manure and used for vegetable production. Where the manure produced is more than utilized by the vegetation unit, the remainder will be packed in sacks for nearby farmers to collect and use for manure. Other farmers that are specialized in vegetable farming will collect/purchase the chicken droppings for compost.

Collection of uncontaminated mortalities from each facility will be done on daily bases by the farmer and be placed in special lockable containers and recycled by selling to other farmer's/ buyers who collect for other feeds production (recycling) usually by crocodile and lion farmers. Where there are left overs, these will be disposed off at a licensed waste disposal site.

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

The collected waste will be disposed off at the nearest registered landfill site. However, in terms of mortalities, they will be buried (if not sold) at a designated and licensed waste disposal site.

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 department 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	NO
-----	-----------

If yes, inform the department 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?

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

If yes, then the applicant should consult with the Department 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?

YES	NO
-----	----

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

m ³	
----------------	--

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

YES	NO
-----	----

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

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

YES	NO
-----	----

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:

--

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
-----	----

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

YES	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.

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?

YES	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.

If no, describe the noise in terms of type and level:

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 (Borehole)	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

	Litres		
Does the activity require a water use permit from the Department of Water Affairs?	<table border="1"> <tr> <td style="background-color: black; color: white;">YES</td> <td>NO</td> </tr> </table>	YES	NO
YES	NO		

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.

13. ENERGY EFFICIENCY

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

Electricity supply is already on the farm, and no special design measures are required for the proposed development. However, in order to keep electricity usage to minimum power consumption, energy efficient lamps will be used on the farm.

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

The farmer is intending to ensure uninterrupted supply of power by means of generators and solar lamps as backup when needed especially in instances of electricity power outage.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

- 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	NO
-----	----

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:

Portion 35 of the farm Springbokvlakte NO. 41JR

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

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?

YES	NO
YES	NO

Must a building plan be submitted to the local authority?

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, minutes and seconds. 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	1:20 — 1:15	1:15 — 1:10	1:10 — 1:7,5	1:7,5 — 1:5	Steeper than 1:5
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Alternative S2 (if any):

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

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

2. LOCATION IN LANDSCAPE

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

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

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

Site A:

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

Site B:

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

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

5. 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:

5.1 Natural area		5.22 School	
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential		5.24 Church	
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial ^{AN}		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	

5.7 Military or police base/station/compound –	5.28 Protected Area –	
5.8 Spoil heap or slimes dam ^A	5.29 Sewage treatment plant ^A	
5.9 Light industrial	5.30 Train station or shunting yard ^N	
5.10 Heavy industrial ^{AN}	5.31 Railway line ^N	
5.11 Power station	5.32 Major road (4 lanes or more) –	
5.12 Sport facilities	5.33 Airport ^N	
5.13 Golf course	5.34 Harbour	
5.14 Polo fields	5.35 Quarry, sand or borrow pit –	
5.15 Filling station ^H	5.36 Hospital/medical centre –	
5.16 Landfill or waste treatment site –	5.37 River, stream or wetland –	
5.17 Plantation	5.38 Nature conservation area	
5.18 Agriculture	5.39 Mountain, koppie or ridge –	
5.19 Archaeological site –	5.40 Graveyard –	
5.20 Quarry, sand or borrow pit –	5.41 River, stream or wetland –	
5.21 Dam or Reservoir –	5.42 Other land uses (small holdings)	

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

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

If YES, specify and explain:	
If NO, specify:	

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

If YES, specify and explain:	
If NO, specify:	

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

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

If YES, explain:

	NO
	Uncertain

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:

--

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 department) 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 department;
- (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 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 department, in those instances where a person is desiring 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 department 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
 - (v) 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 department 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 these 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 department 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 these 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.

Name of Authority informed:	Comments received (Yes or No)
South African Heritage Resources Agency	Draft Report Submitted –awaiting comments
Department of Water and Sanitation	Draft Report Submitted –awaiting comments
Limpopo Department of Economic Development, Environment and Tourism (LEDET)	Draft Report Submitted –awaiting comments

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 subregulation to the extent and in the manner as may be agreed to by the department.


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

Has any comment been received from stakeholders?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	NO
--------------------------	-------------------------------------	----

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

This draft is being submitted to stakeholders and interested and affected parties, and comments received will be incorporated into the final report.



SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, 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.

Background Information Documents (BID) was distributed to neighbouring residents or farmers of the existing facilities. Also a newspaper advertisement was carried out on the proposed development. No comments have been received from interested and affected parties as at the end of 30 days of distribution.

However interactions with some interested and affected parties suggests that the responding interested and affected parties do not have any objections to the proposed development. Most of them were however wanting to find out about how they can also acquire such land to undertake similar farming, while others were wanting to find avenues on how to assess the farm produce such as the eggs. That's they are more interested in seeing the project come through to their advantage.

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 Annexure E):

Given that no written comments were received, no written response were also given.

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)

List of Potential Impacts

The anticipated impacts associated with the proposed Poultry Farm development have been identified and analysed using the mixed method approach. This includes site visits, consultation with secondary with stakeholders, consultation of secondary information or literature, and independent assessment by the project environmental personnel and project officials. Direct impacts that may result from the proposed development include impacts on the biophysical environment, from construction activities such as site clearing, digging, building and installation.

Social impacts include, employment and business opportunities that may open up to the local and neighbouring communities. Other impacts may result from the operational stages of the development. The list below includes the potential identified impacts of the proposed development.

These impacts may occur at the various stages but with different intensities and extent, and significance. These are assessed in relation to the various stages and for the alternatives identified.

Impacts

1. Potential loss of biodiversity during construction stage, due to vegetation removal
2. The loss of indigenous vegetation due to the removal of land cover
3. Noise impacts
4. Dust generation
5. Possible water pollution / Surface runoff /Stormwater pollution
6. Soil disturbance and possible erosion activities
7. Possible air pollution
8. Job Creation
9. Visual /aesthetic view disruption
10. Possible Spill of hydrocarbons
11. Traffic generation and disruption
12. Health and Safety issues
13. Improvement in the livelihood of local community members
14. Assistance in the stimulation of local economy
15. Potential impacts on local services
16. Potential contamination from improper waste management

IMPACT ASSESSMENT AND RATING CRITERIA /FRAMEWORK

The impacts identified have been assessed and rated based on the rating criteria outlined by the Department of Environmental Affairs, as per the guideline documents to the EIA regulations (1998) as amended. This took into consideration the extent, duration, magnitude and probability of the impact occurring. Below is a description the methodology utilized in ranking the identified impacts.

ASPECT	SCORE/DESCRIPTION	IMPLICATION
(a) Status		Negative impact i.e. at cost to the environment)
		Positive impact i.e. at benefit to the environment
		Neutral effect
(b) Extent	1 Site	Within the boundaries of the site
	2 Local area	Within 10km of the site
	3 Municipal Area	Within the Waterberg District Municipality and areas less than 100km
	4 Regional	Within the Province of Limpopo (or neighbouring Mpumalanga)
	5 National	South Africa
	6 international	Southern Africa
(c) Duration	1 Immediate / temporal	- < 1 year
	2 Short Term	1 – 5 years
	3 Medium term	6 -15 years
	4 Long term	The impact will cease when the operation stops
	5 Permanent	No mitigation measure will reduce the impact after construction
(d) Magnitude	0 None	Where the aspect will have no impact on the environment
	2 Minor	Where the effects of the environment is in such a way that natural, cultural and social functions or processes are not affected
	4 Low	Where the effects of the environment in such a way that natural, cultural and social functions or processes are slightly affected
	6 Moderate	Where the effects of the environment in such a way that natural, cultural and social functions or processes continue but in a modified way
	8 High	natural, cultural and social functions or processes are altered in such a way that they will temporarily cease
	10 Very high	natural, cultural and social functions or processes will cease permanently

(e) Possibility of resulting in Irreplaceable loss of resources	0 Very Low	Will not result in any irreversible or irreplaceable loss in resources
	1 Low	Likely to result is preventable and localized loss to resources
	2 Moderate	Most likely to cause loss if the project is implemented but can be moderately mitigated or avoided.
	3 High	Highly likely to cause long term loss as long as the project remains but can be reverted after decommissioning
	4 Very High	Will result in Permanent loss to resources
	6 Extremely High	Southern Africa and beyond (international)
(f) Probability of occurrence	0 None	Impact will not occur
	0.1 Improbable	Possibility of the impact materializing is very low as a result of design, historic experience or by virtue of implementation of adequate mitigation measures.
	0.25 Possible but unlikely	The is moderate chance that the impact will occur
	0.5 Probable	Impact may occur
	0.75 Highly probable	Occurrence is most likely
	1 Definite / unknown	The impact will occur regardless of the implementation of preventive or corrective actions, or where the probability that the impact will occur is unknown due to lack of information

(g) Significance weighting of the impact (S)

From the above descriptions, the potential impacts are assigned a significance weighting (S). This weighting is arrived at by adding the assigned scores of the extent (E), duration (D), possibility to cause Irreplaceable Loss of Resources (I) and magnitude (M) and multiplying the sum by the probability score (P).

Thus: $S = (E+D+M+I) \times P$

The overall significance weightings scores are categorized below:

SCORE	Description	Interpretation	Color Code
≤ 2	Very Low		

2-5	Low		
5-10	Medium		
11 - ≤16	High		
	Positive		
	Negative		
	Positively High		

1. Construction Phase

1A IMPACTS THAT MAY RESULT DURING THE CONSTRUCTION PHASE (PROPOSAL)

The impacts that may result when the facility is constructed on site alternative A, with the technology and method of automation are discussed herein.

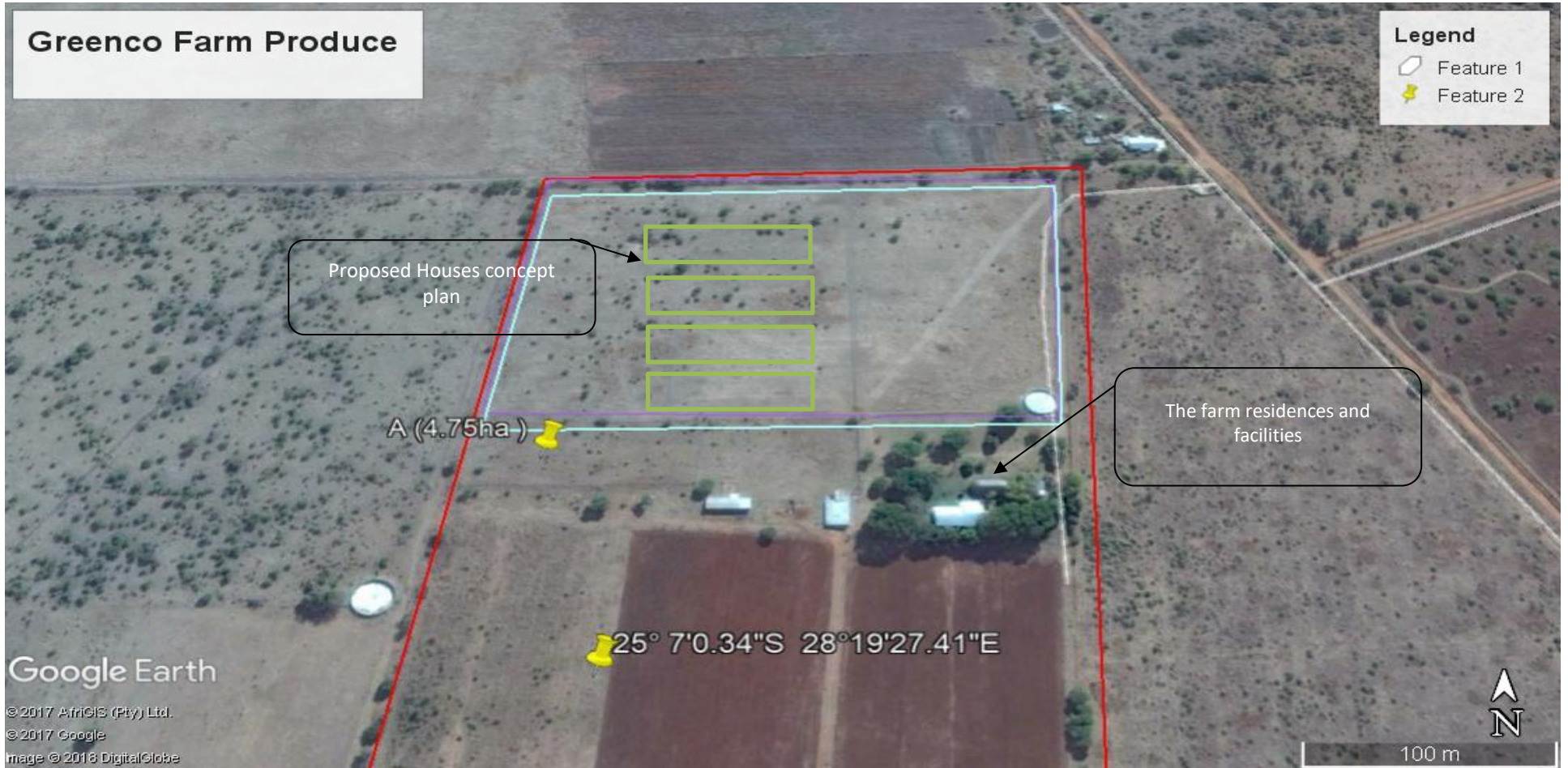


Figure 9 Proposed site alternative A (Preferred alternative)

1A. SUMMARY OF POTENTIAL IMPACTS AND THEIR RATINGS ALTERNATIVE A (PREFERRED ALTERNATIVE)

Environmental Impact assessment									
Significance rating grid									
Impact	Mitigation Required	Nature of Impact	Extent	Duration	Magnitude	Irreplaceable Loss of resources	Probability	Significance Score	Rating
CONSTRUCTION STAGE									
Loss of critical biodiversity / habitat	Yes		1	1	2	1	0,25	1,25	Very Low
Loss of indigenous vegetation	Yes		1	5	5	2	0,5	6,5	Medium
Impact on fauna	Yes		2	1	4	0	0,5	3.5	Low
Noise	Yes		2	1	6	0	0,75	6.75	Medium
Water pollution (water courses)	Yes		3	2	4	0	0,25	2,25	Low
Soil disturbance /Erosion	Yes		1	2	8	4	1	15	High
Air Pollution	Yes		2	1	6	4	1	13	High
Stormwater management	Yes		2	3	6	1	0,25	3	Low
Job Creation	None Required		3	2	6	0	1	11	High
Cultural or historical surface sites	Yes		1	4	5	0	0,25	2,5	Low
Loss of land for cultivation	yes		3	5	8	3	0,75	14	High
Visual / Aesthetic impact	Yes		1	5	2	2	0,5	5	Medium
Hydrocarbon Spills	Yes		2	1	8	4	0,75	11,25	High
Traffic	Yes		2	1	4	0	0,5	3,5	Low
Safety	Yes		1	2	6	0	0,5	4,5	Low
Improvement in livelihood of local community	None required		3	1	6	0	0,75	7,5	Medium
Impact on Local services	Yes		3	2	4	0	0,5	4,5	Low
Benefits to local economy	None required		2	2	6	0	0,5	5	Medium

NARRATIVE OF IMPACT ASSESSMENTS (CONSTRUCTION PHASE) – ALTERNATIVE A (THE PROPOSAL)

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Loss of critical biodiversity/habitat</p> <p>The site being considered is a farm with some level of disturbance. The biodiversity map indicates that the farm area does not constitute a critical or high priority biodiversity zone.</p> <p>Most parts of the farm are currently being cultivated, which further reduces its conservation significance.</p>	<p>1,25=Very Low</p>	<p>Though site does not constitute a high biodiversity zone, most of the vacant portions have relatively good land cover. Vegetation removal should be restricted to only what is necessary to accommodate the proposed development.</p>	<p>Very Low</p>	<p>Should the vegetation removal be extended to areas not covered by the additional infrastructure, these areas might be left bare and become susceptible to erosion activities and land degradation.</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Loss of indigenous vegetation</p> <p>The area being considered for the proposed development consists of relatively good grassland that may be removed for the purpose of the establishment. The vegetation removal is inevitable hence this impact is likely to be relatively high.</p> <p>However, given the fact that the farm was previously used for crops production, most of the indigenous vegetation is already removed. Whatever vegetation is lost during the construction phase will be lost permanently as long as the facilities stay in place.</p>	6,5=Medium	<p>Vegetation removal should be restricted to only the development footprint.</p> <p>It is also noted that, since this is a farm, any portion of the farm may be cultivated by the farmer as he may please. This is currently the case, as some significant areas on the farm are being cultivated. This currently makes the conservation significance less, coupled with the fact that the vegetation type is not of high biodiversity priority.</p>	Low	<p>Should the vegetation removal be undertaken in areas other than the development footprint, more land cover or grassland on the underdeveloped and uncultivated are will be lost unnecessarily.</p>
<p>Impact on fauna</p> <p>No significant fauna species were identified within the area, however the neighbouring farm on the west side of the farm is a game reserve which has different animals that can be affected by the level of the noise during construction phase of the development.</p>	3,5=Low	<p>Machinery with low noise levels to be used. Site activities will be conducted during daytime hours to avoid night time noise disturbances.</p>	Low	<p>Should the noise level of the machines used be too high, the animals at the near game reserve will be disturbed on their daily routine including sleeping and moving freely</p>
<p>Alien Vegetation infestation potential</p> <p>Potential to indirectly increase the risk of the</p>	1,25 =Very Low	<p>Alien vegetation in and around the site will be eradicated using approved techniques and herbicides, by accredited</p>	Very Low	<p>The potential of sprout of alien species on areas left bare is high when not monitored. However, given the</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Spread of alien vegetation exists on the areas left bare after construction.		<p>personnel; and proliferation of alien vegetation will be controlled.</p> <p>Also, it is envisaged that alien vegetation will be removed automatically during land clearing for the development.</p>		fact that maintenance staff will be on site, this may be contained.
<p>Surface runoff pollution</p> <p>Impact on surface water may be as a result of uncontrolled waste handling.</p>	2.25=Low	<p>Stockpiles of rubble and topsoil should not be left piled for more than a reasonable time, as may be stipulated in the EMP, but generally not more than 14 days on site. These should be recycled where possible.</p>	Low	Should there be no mitigation measures, possibility of storm water pollution during constructionism likely to result. This however, is likely to be localized.
<p>Underground water</p> <p>There is also the Possibility of contamination of underground water as a results of soil pollution due to the usage of hazardous substance on the site.</p>	2,25=Low	<p>Equipment or tools with oil or grease is not allowed to be placed on bare ground.</p> <p>These must always be placed on a lined surface. Cement mixing will take place on a lined surface. No Cement will be mixed on a bare surface.</p>	Low	Inappropriate handling of waste and hazardous substance on the site can reduce the quality of underground water

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Storm water management</p> <p>Given the proposed development regards the removal of land cover, the potential to create more hardened surfaces is eminent. Storm water acceleration and localised ponding is likely to occur. In addition, spillage and waste could be other sources of pollution of storm water. This may lead to contamination of water bodies and underground water.</p>	3=Low	A storm water management system, in terms of the National Building regulations needs to be implemented by the contractor in the building of the structures. Onsite, drainage systems will be provided. In addition, a stormwater management plan should be designed and approved by the engineer prior to the commencement of construction works on the site.	Very Low	Should no mitigation be implemented, this may constitute poor stormwater management which may result in issues such as localized ponding, sedimentation, erosion and pollution among other things.
<p>Soil disturbance/erosion</p> <p>The proposed activity will result in the vegetation clearance, soil removal, which decreases soil stability and lead to loss of soil resources by erosion, contamination and sterilisation. Soil degradation will also cause an indirect impact on the loss of micro habitats.</p>	15=High	The construction footprint is already fenced off, however unnecessary disturbance will be minimised. Cleared areas will be revegetated with indigenous vegetation following construction activities, and all excavations will be backfilled with sub soil and top soil in the reverse order to which the soil profiles were removed. All visible weeds should be removed from top soil and placement area before replacing top soil. Contaminated soil by spills should be removed and disposed of as hazardous waste at a licensed hazardous landfill facility.	medium	Should the mitigation measures not be implemented, and then there is possibility of the impacts discussed occurring. There will also be additional impacts including air pollution by dust as results of diggings and top soil removal, and soil erosion will be high given the fact that soil will be left bare exposed to wind and rain.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Air pollution</p> <p>Air pollution during the construction stage is likely to stem from dust and perhaps fumes from vehicles. The air pollution will affect the employees and surrounding land uses, however this air pollution can be controlled or mitigated</p>	13= High	<p>Clearance of the site vegetation should be kept to a minimum, and uncovered soil should be kept moist to avoid dust generation. Construction vehicles and machinery utilised on site should be maintained and always be kept in good working order. Protective construction gears should be worn on dust days, and watering should be applied where necessary.</p>	Low	<p>Polluted air, from dust and fumes or other sources is likely to be a nuisance to the neighbors of the farm. This may also pose a health risk if not mitigated.</p>
<p>Noise</p> <p>Construction stage noise will consist of noise and vibrations by vehicles moving materials and also construction workers. This is likely to cause some irritation to nearby households. However, given that there are limited households surrounding the farm, the effects of this impact are likely to be less.</p>	6,75=Medium	<p>Machinery should be kept in good working order to reduce noise emission. Noise reduction mechanisms should be equipped if necessary.</p> <p>The construction activities should be restricted to normal working hours and during the day.</p>	Low	<p>Should the mitigation not be implemented, for instance where work is carried out into the night, then the nearby households may get irritated.</p>
<p>Job creation</p> <p>The construction phase of the proposed development is likely to create temporary additional jobs for the local area. Jobs will be created during construction as labours, masons and other workers may be required.</p> <p>This is likely to impact positively on the local economy as more people getting employment</p>	11=High	<p>No mitigation is required</p>	High	<p>N/A</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
may spiral some level of livelihood improvement				
<p>Improvement in livelihood of local community</p> <p>The temporal income generated may contribute to household life improvement in the short term.</p> <p>In the long term however, local people will gain skills that will help them on their future and they will stand a better chance of being hired when the development of this kind happens again.</p>	7,5=Medium	None required	Medium	N/A
<p>Benefits to local Economy</p> <p>The spill over of the construction stage employment and sourcing of materials from local suppliers will go a long way in providing socio-economic benefit to the community as a whole. More income in the pocket of community members means, more purchasing power, leading to the stirring of economic acidity in the local economy.</p>	5=Medium	None required	Medium	N/A

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Visual Impacts</p> <p>Visual impacts are likely to emanate from construction activities such as storage of materials.</p> <p>However, given that this development is on the farm, isolated from high traffic, this is likely to be moderately insignificant.</p>	5=Medium	<p>Material storage during operations should be done at designated areas, in order not to constitute any aesthetic nuisance.</p>	low	<p>Visual Impacts is most likely to occur if mitigations are not considered which will disturb the eyes and mind of the neighbouring farms</p>
<p>Hydrocarbon spill/fuel</p> <p>Oil and fuel leaks and spills from construction vehicles is highly possible during construction phase. This is likely to contaminate storm water and also source possible contamination or pollution of the soil, if not properly managed or prevented.</p>	11,25=High	<p>Mitigation measures for this kind of risk includes prevention and management. Ideally, the spillage of such oils and fuels should be prevented at all cost. But where any of such incidents occur, prompt remedial actions should be taken. Examples of which include cutting the site and disposing appropriately, say in a registered landfill.</p> <p>Where necessary all vehicles suspected with leakages should be undersealed with drip pans.</p> <p>Fuels and petroleum product storage should be undertaken and sealed hard surfaces, which are</p>	low	<p>If all the mitigation measures are implemented, the impact should remain low. However should this not be the case the risk of potential contamination is high. This may lead to contamination of underground water, soil pollution and disturbance of the bio-equilibrium among other negative effects</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>possibly lined, to prevent any dripping into the soil and grass.</p> <p>All foremen of operators of such vehicles should be educated on this, and the vehicles should be well maintained and checked regularly for any such leakages. The health and safety rules as stipulated by the department of health should be well enforced during the construction and operational faces.</p>		
<p>Traffic</p> <p>Traffic during construction stage is likely to stem from the construction vehicles moving materials to and from the site, via the existing road networks. This may cause some inconvenience to local residents. However, this is likely to be minimal given that the site can be accessed via different routes, and also given that not many construction vehicles will be involved traveling to the farm.</p>	3,5=Low	<p>Traffic control officers should be appointed to control the flow of traffic on the road to avoid such inconvenience.</p> <p>This kind of inconvenience can also be avoided by using alternative routes to access the farm.</p>	Very low	<p>If the mitigation measures are not implemented, there will be a high chance of unnecessary traffic disruption.</p>
<p>Safety</p> <p>The movement of machinery, storage of materials, and excavations are possible sources of safety issues during construction</p>	4,5=Low	<p>The risks of accidents and injury can be minimized by the implementation of safety procedures. Proper health and safety measures should be put in</p>	Very low	<p>Should these mitigation measures not put in place, these may constitute violation of the health and safety regulations. This may also leave workers exposed to all kinds of risks.</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>stage. Neglect to any health and safety measures may result in injury to both workers and any other persons who may find themselves on this site. This requires a strict enforcement of the national health and safety regulations pertaining to construction sites.</p>		<p>place during the implementation of the proposed development. Health and safety plan should be prepared and approved by the engineer prior to construction. The Occupational health and safety procedures as outlined by the department of Health should be put in place prior to the commencement of work. Safety equipment such as fire extinguishers, First Aid boxes, and other safety appliances should be readily available and administered by a trained safety officer.</p>		<p>Should any incident occur, this may lead to prolonged waiting for help, which may lead to loss of property for, instance in the case of fire.</p>
<p>Cultural and Historical surface sites</p> <p>Given the fact that no such sites were readily identified within the site, or within its environs, the impact on such features is likely to be insignificant.</p> <p>In addition. This are farms where cultivations are occurring at the will of the farmer. The sites under consideration are previously used paddocks where is believed not such materials exists.</p>	<p>2,5=Low</p>	<p>If any cultural or historical features discovered during the construction, the construction must stop immediately and the remaining must be reported to the nearest museum or to SAHRA</p>	<p>Very low</p>	<p>The risk of the impact and mitigation not being implemented include loss or damage of cultural or historical features.</p>

1B. ALTERNATIVE B (REPEAT THIS TABLE FOR EACH ALTERNATIVE)

Construction on Land Parcel B

The construction stage impacts are mostly likely to be same as the impacts on site A with the exception of dust and noise as a nuisance to the farmer next door. Also the severity of arable land loss / utilisation for the poultry may be felt more on this portion of land parcel B as compared to land parcel A. According to the farmer, the land parcel B is more arable and conducive compared to Land parcel A, hence the decision to use A for poultry given it is less arable for crop production.

SIGNIFICANCE RATING GRID								
Alternative B								
Impact	Mitigation Required	Nature of Impact	Extent	Duration	Magnitude	Irreplaceable Loss of resources	Probability	Significance Score
CONSTRUCTION STAGE								
Loss of critical biodiversity / habitat	Yes		1	1	2	1	0,25	1,25
Loss of indigenous vegetation	Yes		1	1	0	1	0,5	1,5
Impact on fauna	Yes		2	1	4	0	0,5	3,5
Noise	Yes		2	1	6	0	0,75	6,75
Water pollution (water courses)	Yes		3	2	4	0	0,25	2,25
Soil disturbance /Erosion	Yes		1	2	8	4	1	15
Air Pollution	Yes		2	1	6	3	1	12
Stormwater management	Yes		2	3	6	1	0,25	3
Job Creation	None Required		3	2	6	0	1	11
Cultural or historical surface sites	Yes		1	4	5	0	0,25	2,5
Loss of land for cultivation	No		3	5	6	4	1	18
Visual / Aesthetic impact	Yes		1	5	2	2	0,5	5
Hydrocarbon Spills	Yes		2	1	8	1	0,75	9
Traffic	Yes		2	1	4	0	0,5	3,5
Safety	Yes		1	2	6	0	0,5	4,5
Improvement in livelihood of local community	None required		3	1	6	0	0,75	7,5
Impact on Local services	Yes		3	2	4	0	0,5	4,5
Benefits to local economy	None required		2	2	6	0	0,5	5

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Loss of critical biodiversity/habitat</p> <p>The site being considered is a farm with some level of disturbance. The biodiversity map indicates that the farm area does not constitute a critical or high priority biodiversity zone.</p> <p>Most parts of the farm are currently being cultivated, which further reduces its conservation significance.</p>	<p>1,25=Very Low</p>	<p>Though site does not constitute a high biodiversity zone, most of the vacant portions have relatively good land cover. Vegetation removal should be restricted to only what is necessary to accommodate the proposed development.</p>	<p>Very Low</p>	<p>Should the vegetation removal be extended to areas not covered by the additional infrastructure, these areas might be left bare and become susceptible to erosion activities and land degradation.</p>
<p>Loss of indigenous vegetation</p> <p>The site B is currently vacant, though portions of it are being cleared for crop production. The removal of the grassland may constitute loss of indigenous vegetation. However, it was observed this portion of the farm have been previously cultivated hence no indigenous vegetation remains on this piece of land.</p>	<p>1.5=Low</p>	<p>Vegetation removal should be restricted to only the development footprint.</p> <p>It is also noted that, since this is a farm, any portion of the farm may be cultivated by the farmer as he may please. This is currently the case, as some significant areas on the farm are being cultivated. This currently makes the conservation significance less, coupled with the</p>	<p>Low</p>	<p>Should the vegetation removal be undertaken in areas other than the development footprint, more land cover or grassland on the underdeveloped and uncultivated areas will be lost unnecessarily.</p>

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>However, given the fact that the farm was previously used for crops production, most of the indigenous vegetation is already removed. Whatever vegetation is lost during the construction phase will be lost permanently as long as the facilities stay in place.</p>		<p>fact that the vegetation type is not of high biodiversity priority.</p>		
<p>Impact on fauna</p> <p>No significant fauna species were identified within the area, however the neighbouring farm on the west side of the farm is a game reserve which has different animals that can be affected by the level of the noise during construction phase of the development.</p>	<p>3,5=Low</p>	<p>Machinery with low noise levels to be used. Site activities will be conducted during daytime hours to avoid night time noise disturbances.</p>	<p>Low</p>	<p>Should the noise level of the machines used be too high, the animals at the near game reserve will be disturbed on their daily routine including sleeping and moving freely</p>
<p>Surface runoff pollution</p> <p>Impact on surface water may be as a result of uncontrolled waste handling.</p> <p>On this portion of the site, improper control of surface runoff is likely to cause pollution on the neighbouring farm. Also, the farm here is also containing cattle and the runoff from the cattle pen may end up on the poultry area if proper mechanisms are not put in place to divert water flow.</p>	<p>2.25=Low</p>	<p>Stockpiles of rubble and topsoil should not be left piled for more than a reasonable time, as may be stipulated in the EMP, but generally not more than 14 days on site. These should be recycled where possible.</p> <p>Gutters should be provided to divert surface runoff from other areas from entering the farm or in this to the neighbouring farm.</p>	<p>Low</p>	<p>Should there be no mitigation measures, possibility of storm water pollution during constructionism likely to result. This however, is likely to be localized.</p>

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Underground water</p> <p>There is also the Possibility of contamination of underground water as a results of soil pollution due to the usage of hazardous substance on the site.</p>	<p>2,25=Low</p>	<p>Equipment or tools with oil or grease is not allowed to be placed on bare ground.</p> <p>These must always be placed on a lined surface. Cement mixing will take place on a lined surface. No Cement will be mixed on a bare surface.</p>	<p>Low</p>	<p>Inappropriate handling of waste and hazardous substance on the site can reduce the quality of underground water</p>
<p>Soil disturbance/erosion</p> <p>The proposed activity will result in the vegetation clearance, soil removal, which decreases soil stability and lead to loss of soil resources by erosion, contamination and sterilisation. Soil degradation will also cause an indirect impact on the loss of micro habitats.</p>	<p>15=High</p>	<p>The construction footprint is already fenced off, however unnecessary disturbance will be minimised. Cleared areas will be revegetated with indigenous vegetation following construction activities, and all excavations will be backfilled with sub soil and top soil in the reverse order to which the soil profiles were removed. All visible weeds should be removed from top soil and placement area before replacing top soil. Contaminated soil by spills should be removed and disposed of as hazardous waste at a licensed hazardous landfill facility.</p>	<p>medium</p>	<p>Should the mitigation measures not be implemented, and then there is possibility of the impacts discussed occurring. There will also be additional impacts including air pollution by dust as results of diggings and top soil removal, and soil erosion will be high given the fact that soil will be left bare exposed to wind and rain.</p>
<p>Air pollution</p>	<p>13= High</p>	<p>Clearance of the site vegetation should be kept to a minimum, and</p>	<p>Low</p>	<p>Polluted air, from dust and fumes or other sources is likely to be a nuisance</p>

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Air pollution during the construction stage is likely to stem from dust and perhaps fumes from vehicles. The air pollution will affect the employees and surrounding land uses, however this air pollution can be controlled or mitigated.</p> <p>Dust generated on this site, may be directly blown onto the residence next door to the western boundary of the farm.</p>		<p>uncovered soil should be kept moist to avoid dust generation. Construction vehicles and machinery utilised on site should be maintained and always be kept in good working order. Protective construction gears should be worn on dust days, and watering should be applied where necessary.</p> <p>Dust and other pollution control mechanism should be implemented to reduce the impact of dust on the neighbouring house.</p>		<p>to the neighbors of the farm. This may also pose a health risk if not mitigated.</p>
<p>Noise</p> <p>Construction stage noise will consist of noise and vibrations by vehicles moving materials and also construction workers. This is likely to cause some irritation to nearby households, especially the house on the western boundary of site B.</p>	<p>6,75=Medium</p>	<p>Machinery should be kept in good working order to reduce noise emission. Noise reduction mechanisms should be equipped if necessary.</p> <p>The construction activities should be restricted to normal working hours and during the day.</p>	<p>Low</p>	<p>Should the mitigation not be implemented, for instance where work is carried out into the night, then the nearby households may get irritated.</p>
<p>Job creation</p> <p>The construction phase of the proposed development is likely to create temporary additional jobs for the local area. Jobs will be</p>	<p>11=High</p>	<p>No mitigation is required</p>	<p>High</p>	<p>N/A</p>

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>created during construction as labours, masons and other workers may be required.</p> <p>This is likely to impact positively on the local economy as more people getting employment may spiral some level of livelihood improvement</p>				
<p>Improvement in livelihood of local community</p> <p>The temporal income generated may contribute to household life improvement in the short term.</p> <p>In the long term however, local people will gain skills that will help them on their future and they will stand a better chance of being hired when the development of this kind happens again.</p>	7,5=Medium	None required	Medium	N/A
<p>Benefits to local Economy</p> <p>The spill over of the construction stage employment and sourcing of materials from local suppliers will go a long way in providing socio-economic benefit to the community as a whole. More income in the pocket of community members means, more purchasing</p>	5=Medium	None required	Medium	N/A

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
power, leading to the stirring of economic acidity in the local economy.				
<p>Visual Impacts</p> <p>Visual impacts are likely to emanate from construction activities such as storage of materials.</p> <p>However, given that this development is on the farm, isolated from high traffic, this is likely to be moderately insignificant.</p>	5=Medium	Material storage during operations should be done at designated areas, in order not to constitute any aesthetic nuisance.	low	Visual Impacts is most likely to occur if mitigations are not considered which will disturb the eyes and mind of the neighbouring farms
<p>Hydrocarbon spill/fuel</p> <p>Oil and fuel leaks and spills from construction vehicles is highly possible during construction phase. This is likely to contaminate storm water and also source possible contamination or pollution of the soil, if not properly managed or prevented.</p>	9=Medium	<p>Mitigation measures for this kind of risk includes prevention and management. Ideally, the spillage of such oils and fuels should be prevented at all cost. But where any of such incidents occur, prompt remedial actions should be taken. Examples of which include cutting the site and disposing appropriately, say in a registered landfill.</p> <p>Where necessary all vehicles suspected with leakages should be undersealed with drip pans.</p>	low	If all the mitigation measures are implemented, the impact should remain low. However should this not be the case the risk of potential contamination is high. This may lead to contamination of underground water, soil pollution and disturbance of the bio-equilibrium among other negative effects

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>Fuels and petroleum product storage should be undertaken and sealed hard surfaces, which are possibly lined, to prevent any dripping into the soil and grass.</p> <p>All foremen of operators of such vehicles should be educated on this, and the vehicles should be well maintained and checked regularly for any such leakages. The health and safety rules as stipulated by the department of health should be well enforced during the construction and operational faces.</p>		
<p>Traffic</p> <p>To construct the facility on Site be will require creating access route to that part of the farm, either through the current farm where an access path exist through the middle of the site. However this may pose nuisance to the vegetation farmers as constant moving of vehicles may obstruct the operations during construction.</p> <p>Traffic during construction stage is likely to stem from the construction vehicles moving</p>	<p>3,5=Low</p>	<p>Traffic control officers should be appointed to control the flow of traffic on the road to avoid such inconvenience.</p> <p>This kind of inconvenience can also be avoided by using alternative routes to access the farm.</p> <p>Also, if possible, construction vehicles can use dedicated access along the fence on the western site</p>	<p>Very low</p>	<p>If the mitigation measures are not implemented, there will be a high chance of unnecessary traffic disruption.</p>

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
materials to and from the site, via the existing road networks. This may cause some inconvenience to local residents. However, this is likely to be minimal given that the site can be accessed via different routes, and also given that not many construction vehicles will be involved traveling to the farm.		of the farm, to reduce any disruption of current operation. Dust control mechanisms should be applied to prevent dust being a nuisance to the residence on the neighbouring farm.		
<p>Safety</p> <p>The movement of machinery, storage of materials, and excavations are possible sources of safety issues during construction stage. Neglect to any health and safety measures may result in injury to both workers and any other persons who may find themselves on this site. This requires a strict enforcement of the national health and safety regulations pertaining to construction sites.</p>	4,5=Low	The risks of accidents and injury can be minimized by the implementation of safety procedures. Proper health and safety measures should be put in place during the implementation of the proposed development. Health and safety plan should be prepared and approved by the engineer prior to construction. The Occupational health and safety procedures as outlined by the department of Health should be put in place prior to the commencement of work. Safety equipment such as fire extinguishers, First Aid boxes, and other safety appliances should be readily available and administered by a trained safety officer.	Very low	Should these mitigation measures not put in place, these may constitute violation of the health and safety regulations. This may also leave workers exposed to all kinds of risks. Should any incident occur, this may lead to prolonged waiting for help, which may lead to loss of property for, instance in the case of fire.

Potential Impacts	Significant rating of Impacts (positive or Negative)	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Cultural and Historical surface sites</p> <p>Given the fact that no such sites were readily identified within the site, or within its environs, the impact on such features is likely to be insignificant.</p> <p>In addition. This are farms where cultivations are occurring at the will of the farmer. The sites under consideration are previously used paddocks where is believed not such materials exists.</p>	<p>2,5=Low</p>	<p>If any cultural or historical features discovered during the construction, the construction must stop immediately and the remaining must be reported to the nearest museum or to SAHRA</p>	<p>Very low</p>	<p>The risk of the impact and mitigation not being implemented include loss or damage of cultural or historical features.</p>

2. OPERATIONAL PHASE

2A: IMPACTS THAT MAY RESULT DURING THE OPERATIONAL PHASE PROPOSAL (THE PROPOSAL)

Summary of potential impacts and their ratings

OPERATIONAL STAGE IMPACTS

Impact Significance Rating Grid

Impact	Mitigation Required	Nature of Impact	Extent	Duration	Magnitude	Irreplaceable Loss of resources	Probability	Significance Score	Rating
Noise	Yes		1	1	2	0	0,25	1	Very Low
Water pollution (water courses)	Yes		3	4	4	1	0,25	3	Low
Soil disturbance /Erosion	Yes		1	1	4	1	1	7	Medium
Air Pollution	Yes		2	3	2	1	0,5	4	Low
Stormwater management	Yes		3	2	6	1	0,25	3	Low
Job Creation	None Required		3	4	6	0	0,75	9,75	Medium
Visual / Aesthetic impact	Yes		1	4	0	0	0,5	2,5	Low
Traffic	Yes		2	1	4	0	0,5	3,5	Low
Safety	Yes		1	2	4	0	0,5	3,5	Low
Impact on Local services	Yes		3	4	4	0	0,5	5,5	Medium
Benefits to local economy	None required		2	4	6	0	0,5	6	Medium
Threat to bio-security	Yes		2	5	6	0	0,5	6,5	Medium

NARRATIVE OF IMPACT ASSESSMENTS AT OPERATIONAL PHASE PROPOSAL (PREFERRED ALTERNATIVE)

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>1. Noise</p> <p>Noise levels are likely to be back to normal during the operational stage.</p>	<p>Score 1 = Low</p>	<p>Contraction work should be restricted to within normal working hours only, thus between 8 am to not later than 5pm.</p>	<p>Low</p>	<p>Should the mitigation not be implemented, for instance where work is carried out into the night, then the nearby households may get irritated.</p>
<p>2. Water pollution (water courses)</p> <p>During operational stage, the handling of waste and other chemicals such as disinfectants could be possible sources of surface water pollutions.</p>	<p>Score 3 Low</p>	<p>Extreme precaution needs to be taken in the usage of disinfectants. Only approved disinfectants approved by relevant governing bodies should be utilized in the farm.</p>	<p>Low</p>	<p>Should there be no mitigation measures; possibility of stormwater pollution during the operation is likely to result. This is likely to be localized. No major hydrological features were identified on within the surroundings of the site, hence water pollution is unlikely.</p>
<p>3. Soil disturbance /Erosion</p> <p>At operational stages, potential disturbances to the soil are likely to stem from the areas left bare from construction stage, not rehabilitated. These if not properly monitored and attended to may be prone to erosion activities. Soil erosion activities may cause degradation in the land if not checked in time.</p>	<p>Moderate 7</p>	<p>Striped surfaces should be utilized immediately. Stormwater management mechanisms need to be put in place to reduce or attenuate the possible effects of surface runoff. Land cover surrounding the development footprint should be maintained to serve as a reduction mechanism for surface runoff.</p>	<p>Low</p>	<p>Should the mitigation measures not be implemented, and then there is possibility of the impacts discussed occurring. What could happen will be ponding and also or stagnation if the bare land is left for a longer time without any mitigation measures.</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>4. Air Pollution</p> <p>Possible pollution sources during the operational phase may stem from the odours from the chicken droppings and improperly handled carcasses. This may be a source of nuisance to neighbouring communities and other farmers.</p>	<p>Low 4</p>	<p>The stockpiling of waste materials that may become a source of bad smell and pollution needs to be done with best practice and approved methods as per the guidelines of the Department of Agriculture and Environmental Affairs. Where possible, the location of such stockpiles should be strategic in the wind direction where it will be least nuisance to others.</p> <p>These stockpiles should be utilized as soon as possible.</p>	<p>Low 5</p>	<p>Bad odour from the farm, if not monitored and attended to may be a source of severe discomfort to other farmers. However, given the farm is surrounded by other farms, sparsely populated, there is likelihood this impact may be less severe.</p>
<p>5. Storm water management</p> <p>Given the proposed development regards the removal the land cover, the potential to create more hardened surfaces is eminent. Stormwater acceleration and localised ponding is likely to occur. In addition, spillage and waste could be other sources of pollution of storm water. This may lead to contamination of water bodies and underground water.</p>	<p>Score 3 Medium</p>	<p>A stormwater management system, in terms of the National Building regulations needs to be implemented. Onsite, drainage systems will be provided. In addition, a stormwater management plan should be designed and approved by the engineer prior to the commencement of construction works on the site.</p>	<p>Low 6</p>	<p>Should no mitigation be implemented, this may constitute poor stormwater management which may result in Issues such as localized ponding, sedimentation, erosion and pollution among other things.</p>
<p>6. Job Creation</p>	<p>9.75</p>	<p>N/A</p>		<p>Should the development not be implemented, then the iterated or</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Both the construction and operational phases of the proposed development are likely to create additional jobs for the local community. Jobs will be created during construction as labours, masons and other workers may be required.</p> <p>Expansion of services will mean that more hands will be required, especially where automation is not going to be used. This is likely to impact positively on the local economy as more people getting employment may spiral some level of livelihood improvement.</p>				<p>envisaged positive impacts are not likely to occur. The farmers will produce at their own pace and influence related employment opportunities accordingly.</p>
<p>7. Visual impact</p> <p>At operational stage, visual impacts are expected to normalise. The new structures should have interested into the new view of the area and become the new reality. However, other activities such as storage and stockpiling of materials may still influence aesthetic views. These may me temporal and occur as and when such activities are carried out.</p>	2.5	<p>Material storage during operations should be done at designated areas, in order not to constitute any aesthetic nuisance.</p>	Very low	<p>Aesthetic or visual impacts are expected to normalize drastically during operation if all care is taken during stockpiling of materials and waste.</p>
<p>8. Traffic</p> <p>Traffic during construction stage is likely to stem from the construction vehicles moving materials to and from the site, via the existing road networks. This may cause some inconvenience to local residents. However, this is likely to be minimal given that the site can be accessed via different routes, and also</p>	Low to Moderate 3.5			

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>given that not many construction vehicles will be involved.</p> <p>Traffic during operation may be from vehicles moving goods to and fro the farm.</p>				
<p>9. Safety</p> <p>Safety issues during operation will probably stem from intruders getting to the site to steal or any other purposes. Occupational safety also may be of concern during optional stage. The outbreak of diseases may also compromise the health and safety of the farmers and surrounding neighbours.</p>	<p>3.5 Low</p>	<p>Fencing against intrusion is critical in order to deter some chancers who may venture into the farm.</p> <p>A proper biosecurity plan needs to be put in place to ensure health and safety of both the chicken and also the farmers and reduce the possibility of spread of diseases within the farm and between farms and communities.</p> <p>The Occupational health and safety procedures as outlined by the department of Health should be put in place prior to the commencement of work. Safety equipment such as fire extinguishers, First Aid boxes, and other safety appliances</p>	<p>4 Very Low</p>	<p>Should these mitigation measures not put in place, these may constitute violation of the health and safety regulations. This may also leave workers exposed to all kinds of risks. Should any incident occur, this may lead to prolonged waiting for help, which may lead to loss of property for, instance in the case of fire.</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		should be readily available and administered by a trained safety officer. Indecent registers and reports books should be kept on site. Low		
<p>10. Improvement in livelihood of local Economy</p> <p>The production of a larger scale will not only provide opportunities such as jobs at both the construction and operational levels, but also provide go a long way to support the livelihood of these families. Some people will gain some skills as well.</p> <p>The development proposed is also likely to contribute to the stimulation of the local economy. More people will get jobs, local shops will be supplied with the product from the farm, and local economy will benefit.</p> <p>The operational stage is also likely to generate employment opportunities for the local people to be employed on the farm.</p>	6 Medium	None required	NA	NA
11. Impact on Local services	5.5 = Medium	The capacity of facilities needs to be confirmed from the district municipality in support		

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Currently the farm is serviced by the municipal services such as electricity. The capacity to support further expansion was not specifically confirmed, but the farmer indicated that, municipal supply was sufficient at the time. He indicated that, back up water supply or storage will be provided in Plastic storage tanks (Jojo Tanks).		of the proposed development. Municipal regulations in terms of connections and installations should be followed.		

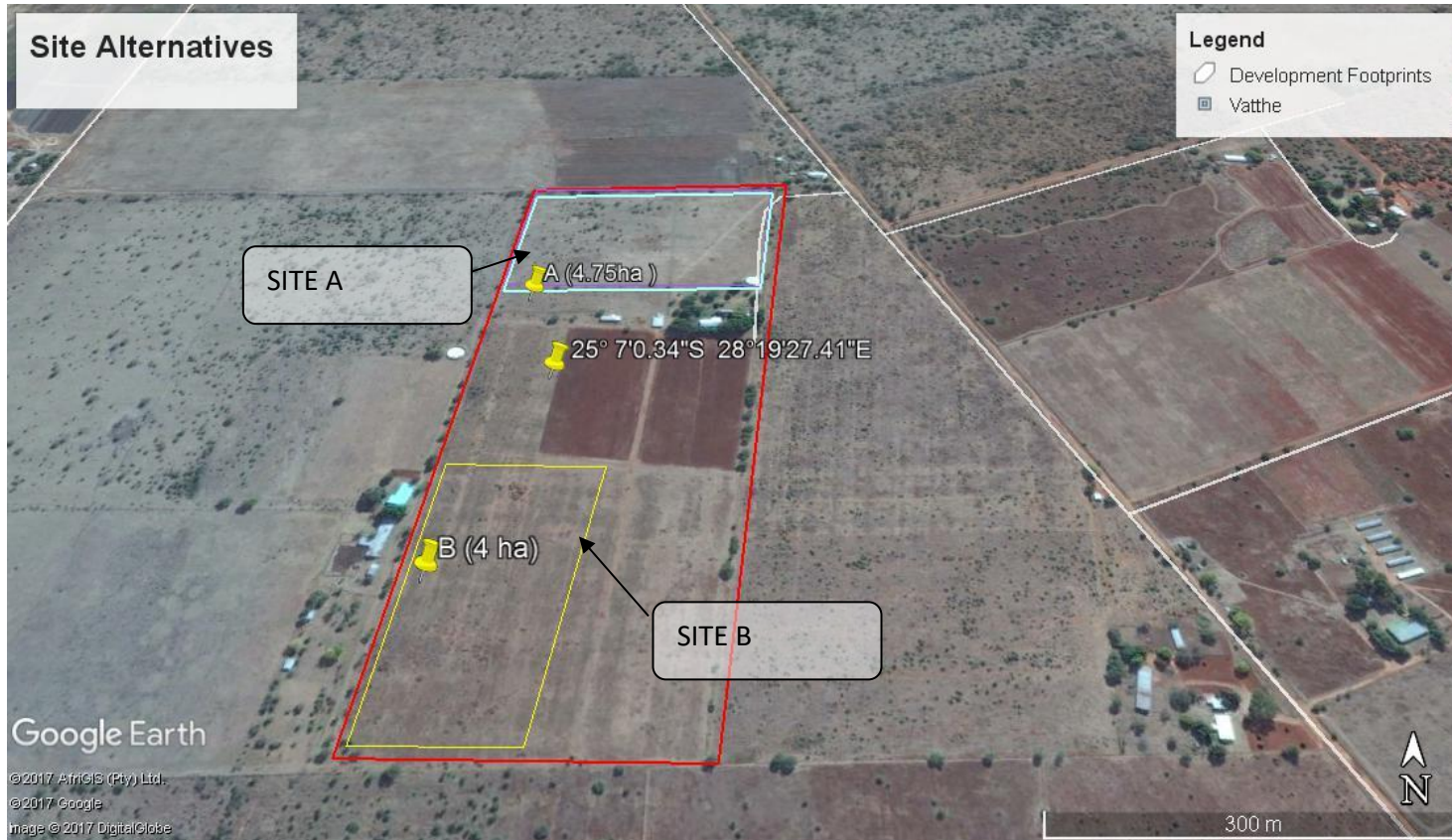
2C NO GO ALTERNATIVE

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
The impacts of no go alternative are most likely to be felt from a socio economic development perspective. No go alternative will exacerbate the status quo as well as thwart the efforts of DRDLR to assist local farmers	Moderately High	Mitigation for this impact, is to find ways of implementing this development as planned, in an environmentally friendly and	Low	Should the mitigation not be implemented, then the issues described in the impacts section will continue as they currently are. Farmers will continue to

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>towards improving individual production capacity and collectively improving market segment entry. Farmers will continue to produce at their limited capacities and continue to face limitations to compete.</p> <p>All possible employment opportunities that are likely to arise from the proposed development at all stages will be lost, or at least stunted.</p> <p>Socio economic benefits of the proposed development to the community are also likely to be lost.</p> <p>A no go alternative however; will keep the environment the way it currently is. Possible construction stage impacts as well may be avoided. Production levels will remain same, or increase gradually.</p>		<p>responsible manner, adhering to all legislations and guidelines as well as recommendations of this assessment.</p>		<p>struggle to increase production capacity to meet market demands. They will be able to absorb less labour than they would if the development were implemented.</p>

2. B. ALTERNATIVE B (LAND ALTERNATIVE WITH MANUAL OPERATIONS) REPEAT THIS TABLE FOR EACH ALTERNATIVE

This option entails a valuation in the operation mode. Here, the facility will be non-mechanised. In this case most of the operations will be manual and undertaken by farm labourers. As discussed under activity alternatives.



Summary of Impacts that may result during the operational phase

Summary of potential impacts and their ratings

OPERATIONAL STAGE (ALTERNATIVE B)								
Impact	Mitigation Required	Nature of Impact	Extent	Duration	Magnitude	Irreplaceable Loss of resources	Probability	Significance Score
Noise	Yes		1	1	2	0	0,75	3
Water pollution (water courses)	Yes		3	4	4	1	0,25	3
Soil disturbance /Erosion	Yes		1	1	4	1	1	7
Air Pollution	Yes		2	4	2	1	0,5	4,5
Stormwater management	Yes		3	2	6	1	0,75	9
Job Creation	None Required		3	8	6	0	0,75	12,75
Visual / Aesthetic impact	Yes		1	4	0	0	0,75	3,75
Traffic	Yes		2	1	4	0	0,75	5,25
Safety	Yes		1	2	4	0	0,75	5,25
Impact on Local services	Yes		3	4	4	0	0,5	5,5
Benefits to local economy	None Required		2	6	6	0	0,5	7
Threat to Biosecurity	Yes		4	4	6	0	0,75	10,5

NARRATIVE OF IMPACT ASSESSMENTS (OPERATIONAL PHASE) Alternative B

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
1. Noise Noise levels are likely to be back to normal during the operational stage. Noise during this	Score 3 = Low	Contraction work should be restricted to within normal working hours only, thus between 8 am to not later than 5pm.	Low	Should the mitigation not be implemented, for instance where work is carried out into the night, then the nearby Farmers may be irritated. However given that there

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>stage is likely to stem from delivery and collection vehicles plying the road to the farm.</p> <p>However, in comparison to the Alternative be, these noise levels are likely to be slightly higher, due to more people working on the farm, than if things were mechanised with fewer labour force.</p>				<p>are few residents near the site the effects of this impact are likely to be insignificant.</p>
<p>2. Water pollution (water courses)</p> <p>During operational stage, the handling of waste and other chemicals such as disinfectants could be possible sources of surface water pollutions. Also discharge of waste water from operations, such as when the floor is cleaned into the neighbouring environment is a potential source of pollution.</p> <p>Also, the introduction of manual operations, introduces a human element where the behaviour of workers need to be monitored carefully so that improper working habits of dumping anywhere does not occur.</p>	<p>Score 3</p> <p>Low</p>	<p>Extreme precaution needs to be taken in the usage of disinfectants. Only approved disinfectants approved by relevant governing bodies should be utilized in the farm.</p> <p>Workers should be well educated on the usage and handling of such equipment and also how to properly dispose off waste water.</p> <p>Workers should be educated also on waste handling and management.</p>	<p>Low</p>	<p>Should there be no mitigation measures; possibility of stormwater pollution during the operation is likely to result. This is likely to be localized. No major hydrological features were identified on within the surroundings of the site, hence water (rivers and wetlands) pollution is unlikely.</p> <p>However, improper handling of waste water, especially with disinfectants may result in other localised issues, if neglected.</p>
<p>3. Soil disturbance /Erosion</p> <p>At operational stages, potential disturbances to the soil are likely to stem from the areas left bare from construction stage, not rehabilitated. These if not properly monitored and attended to may be prone to erosion activities. Soil erosion activities may cause degradation in the land if not checked in time.</p>	<p>Moderate 7</p>	<p>Striped surfaces should be utilized immediately. Stormwater management mechanisms need to be put in place to reduce or attenuate the possible effects of surface runoff.</p> <p>Land cover on the surrounding areas of the development</p>	<p>Low</p>	<p>Should the mitigation measures not be implemented, and then there is possibility of the impacts discussed occurring. What could happen will be ponding and also or stagnation if the bare land is left for a longer time without any mitigation measures.</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		footprint should be maintained to serve as attenuation and reduction mechanism for surface runoff.		
<p>4. Air Pollution</p> <p>Possible pollution sources during the operational phase may stem from the odours from the chicken droppings and improperly handled carcasses and waste. This may be a source of nuisance to neighbouring communities and other farmers.</p> <p>The impact of this situation is likely to be slightly higher on this portion of the farm, due to the closeness of the facilities to the neighbouring house. Here, the receptor is more vulnerable to unpleasant smells emanating from the poultry houses, and also the chicken waste.</p> <p>In addition, manual collection means that workers are likely to breathe in more polluted air, during operation than if things were mechanised.</p>	<p>Low 6.75 = Medium</p>	<p>The stockpiling of waste materials that may become a source of bad smell and pollution needs to be done with best practice and approved methods as per the guidelines of the Department of Agriculture and Environmental Affairs. Where possible, the location of such stockpiles should be strategic in the wind direction where it will be least nuisance to others.</p> <p>These stockpiles should be utilized as soon as possible.</p> <p>Also, the location of stockpiles of manure storage is such that it is not in the dominant direction where it will blow to the house next to the site.</p> <p>Workers should wear protective gear all the time, especially when working in direct contact with waste and chemicals.</p>	<p>Medium</p>	<p>Bad odour from the farm, if not monitored and attended to may be a source of severe discomfort to both workers and other farmers. However, given the farm is surrounded by other farms, sparsely populated, there is likelihood this impact may be less severe, unless improperly managed.</p>
<p>5. Storm water management</p>	<p>Score 3</p>	<p>A stormwater management strategy, in terms of the National</p>	<p>Low</p>	<p>Should no mitigation be implemented, this may constitute</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Given the proposed development regards the removal the land cover, the potential to create more hardened surfaces is eminent. Stormwater acceleration and localised ponding is likely to occur. In addition, spillage and waste could be other sources of pollution of storm water.</p> <p>This may lead to contamination of water bodies and underground water and transmission of diseases to and from the farm into the surrounding environment.</p>	<p>Medium</p>	<p>Building regulations needs to be implemented. Onsite, drainage systems will be provided.</p> <p>In addition, a stormwater management plan should be designed and approved by the engineer prior to the commencement of construction works on the site.</p> <p>Stormwater attenuation mechanisms should be implemented at the edges of the facility to purify surface runoff water to and from the farm.</p>		<p>poor stormwater management which may result in Issues such as localized ponding, sedimentation, erosion and pollution among other things.</p>
<p>6. Disease transmission through pests and wildlife</p> <p>Poor control of pests such as flies, rodents, mice, cockroaches and other microorganisms may serve as channel of disease transfer, especially in times of outbreak of particular diseases.</p> <p>However, there will be more people going in and out of the facilities which might make it easier to detect any pests and rodent activities.</p> <p>The bad side of this is that, the people themselves make become potential carriers of such disease outbreaks within the facility.</p>	<p>Medium 5.5</p>	<p>Early Pest detection mechanisms should be incorporated into the biodiversity management strategy to be implemented on the farm.</p> <p>Proper disinfections should be done regularly to deter other animals from entering. The surroundings of the farm should be regularly cleaned.</p> <p>Rodent control measures needs to be put in place and regularly monitored to ensure efficient functioning.</p>	<p>Low</p>	<p>The poultry facilities will be enclosed and environmentally controlled to ensure little or no access or intrusion by outside pests. However should proper care not be taken, infestations by microorganisms may occur which may lead to subsequent issues.</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		Workers in and out of the facilities should abide by all biosecurity measures to limit disease spread.		
<p>7. Job Creation</p> <p>The operational stage will also generate employment opportunities along the production value chain. The distributors and other manual operational aspects of the project may generate employment opportunities that will be to the benefit of the local municipality. Suppliers and other service providers are also likely to get more business.</p> <p>In addition, manual operations are more labour intensive compared to mechanisation. This means that more employment opportunities will be generated and more families will benefit.</p>	12.75	All measures needed to ensure the success of the project need to be put in place to ensure the envisaged social and economic benefits are realized.		Should the development not be implemented, then the iterated or envisaged positive impacts are not likely to occur.
<p>8. Visual impact</p> <p>At operational stage, visual impacts are expected to normalise. The new structures should have normalised into the new view of the area and become the new reality. However, other activities such as storage and stockpiling of materials may still influence aesthetic views. These may be temporal and occur as and when such activities are carried out.</p> <p>However, given there more people working on the farm may lead to over population if not managed properly. Also this may mean that</p>	Low 3.75	<p>Material storage during operations should be done at designated areas, in order not to constitute any aesthetic nuisance.</p> <p>Waste and other materials should be placed in conducive environments as much as possible.</p>	Very low	Aesthetic or visual impacts are expected to normalize drastically during operation if all care is taken during stockpiling of materials and waste.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
the will be more irritated when things are left in unpleasant places.				
<p>9. Traffic</p> <p>Traffic during operation may be from vehicles moving goods to and fro the farm. Given there is ready access to the site and linking the farm to the Main road via a free by-pass traffic is impacts are expected to be low to moderate.</p> <p>Manual operations, may result in more labour. This may also result in slightly increase number of vehicles in and out of the farm, using the access road. This is likely to increase traffic slightly, compared to mechanised operations. This impact may also be severe, if there are more pedestrians walking the road. Dust may affect their health if vehicles speed.</p>	Medium = 5.25	<p>The use of the access roads to the farm by vehicles is inevitable. Given that there is a dedicated road to the farms traffic is not expected to be an issue. However, being a gravel road, speed limited should be observed, if possible below 60kl/h.</p> <p>All traffic rules should be observed to avoid any traffic related issues.</p>	Low	The neglect of traffic regulations may pose danger of incidents and obstruction of traffic.
<p>10. Safety</p> <p>Safety issues during operation will probably culminate from intruders getting to the site to steal or any other purposes. Occupational safety also may be of concern during optional stage. The outbreak of diseases may also compromise the health and safety of the farmers and surrounding neighbours.</p> <p>Also, more labourers mean more congestion and a higher risk of injury and disease spread in the case of outbreaks.</p>	5.25 = Medium	<p>Fencing against intrusion is critical in order to deter some chancers who may venture into the farm.</p> <p>A proper biosecurity plan needs to be put in place to ensure health and safety of both the chicken and also the farmers and reduce the possibility of spread of diseases within he farm and between farms and communities.</p>	Low to medium	Should these mitigation measures not put in place, these may constitute violation of the health and safety regulations. This may also leave workers exposed to all kinds of risks. Should any incident occur, this may leady to prolonged waiting for help, which may lead to loss of property for, instance in the case of fire.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		The Occupational health and safety procedures as outlined by the department of Health should be put in place prior to the commencement of work. Safety equipment such as fire extinguishers, First Aid boxes, and other safety appliances should be readily available and administered by a trained safety officer. Indecent registers and reports books should be kept on site. Low		
<p>11. Improvement in livelihood of local Economy</p> <p>The production of a larger scale will not only provide opportunities such as jobs at both the construction and operational levels, but also provide go a long way to support the livelihood of these families. Some people will gain some skills as well.</p> <p>The development proposed is also likely to contribute to the stimulation of the local economy.</p> <p>More people will get jobs, local shops will be supplied with the product from the farm, and local economy will benefit.</p>	6 Medium	None required	NA	NA

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>The operational stage is also likely to generate employment opportunities for the local people to be employed on the farm and increase purchasing power within the local economy.</p>				
<p>12. Impact on Local services</p> <p>Currently the farm is serviced by the municipal electricity which already extended to the farm and surrounding areas. Water is mainly from boreholes on the farm. The capacity to support further expansion was not specifically confirmed, but the farmer indicated that, municipal supply was sufficient at the time. He indicated that, back up water supply or storage will be provided through storage systems. Currently there is a concrete reservoir on the farm for water storage in case of low yield. Pressure on services is likely to be low to medium from the production of eggs as compared to high water demand activities such as irrigation.</p>	<p>5.5 = Medium</p>	<p>The judicious use of resources is required to ensure sustainability. Low consuming electricity bulbs should be used, and machine consumption should be monitored to avoid overuse.</p> <p>Using low consumption equipment may also result in cost saving and higher profits, while minimizing pressure on local services.</p>	<p>Low</p>	<p>The over-use of services may occur if not properly monitored. For instance using high consumption equipment may result in overuse as compared to using lower consumption apparatus.</p>

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

1C. NO GO ALTERNATIVE

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>The impacts of no go alternative are most likely to be felt from a socio economic development perspective.</p> <p>No go alternative will exacerbate the status quo as well as thwart the efforts of DRDLR to assist local farmers towards improving individual production capacity and collectively improving market segment entry. Farmers will continue to produce at their limited capacities and continue to face limitations to compete.</p> <p>All possible employment opportunities that are likely to arise from the proposed development at all stages will be lost, or at least stunted.</p>	Moderately High	Mitigation for this impact, is to find ways of implementing this development as planned, in an environmentally friendly and responsible manner, adhering to all legislations and guidelines as well as recommendations of this assessment.	Low	Should the mitigation not be implemented, then the issues described in the impacts section will continue as they currently are. Farmers will continue to struggle to increase production capacity to meet market demands. They will be able to absorb less labour than they would if the development were implemented.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Socio economic benefits of the proposed development to the community are also likely to be lost.				
A no go alternative however; will keep the environment the way it currently is. Possible construction stage impacts as well may be avoided though impacts such as land disturbance and removal of land cover may still occur due to cultivation.	Neutral	None required, other than the farmer engaging in sound farming practices that regulate crop production or any other activity that may be undertaken.		

Cumulative impacts:

During construction phase, improper storm water management could lead to contamination of stormwater, the impacts of which could be felt even in other surrounding areas other than the farm which is the point of impact. This could lead to temporal disturbance in ecological systems in surrounding areas and therefore requires to be tackled properly at the point of impact.

The general handling of waste during operational stage, if not properly planned, could together with the chicken droppings result in significant pollution source. This could be either air pollutions as a result of bad odors or pollution of surface water, which could further lead to contamination of underground water. This therefore requires that each specific impact needs to be dealt with, in order to minimize the chances of any potential cumulative impacts.

Decommissioning:

The proposed development is intended to continue operating for as long as possible. No decommissioning is envisaged to be associated with the proposed development. A decommissioning, will imply that the poultry houses be removed after production is halted. Mr Dube is fully prepared to establish the poultry farm in order to enter the new market and meet the demands of consumer demands.

IMPACT SUMMARY OF THE CONSTRUCTIONAL STAGE IMPACTS

CONSTRUCTION STAGE IMPACT SUMMARY	ALTERNATIVE A (PROPOSAL)				ALTERNATIVE B				
	Mitigation Required	Nature of Impact	Significance Rating before mitigation	Significance Rating after mitigation	Mitigation Required	Nature of Impact	Significance Rating before mitigation	Significance Rating after mitigation	
Loss of critical biodiversity / habitat	Yes	Negative	1,25 = Very Low	Very low	Yes	Negative	1,25 = Very Low	Very low	
Loss of indigenous vegetation	Yes	Negative	6,5 = Medium	Low	Yes	Negative	6,5 = Medium	Low	
Impact on fauna	Yes	Negative	3.5= low	Very low	Yes	Negative	3.5= low	Very low	
Noise	Yes	Negative	6.75 = Medium	Low	Yes	Negative	6.75 = Medium	Low	
Water pollution (water courses)	Yes	Negative	2,25 = Low	Low	Yes	Negative	2,25 = Low	Low	
Soil disturbance /Erosion	Yes	Negative	15= High	Low	Yes	Negative	15= High	Low	
Air Pollution	Yes	Negative	13 = High	Low	Yes	Negative	13 = High	Low	
Stormwater management	Yes	Negative	3 = Low	Low	Yes	Negative	3 = Low	Low	
Job Creation	None Required	Positive	11 = High	High	None Required	Positive	11 = High	High	

Cultural or historical surface sites	Yes	Negative	2,5 =Low	Very low	Yes	Negative	2,5 =Low	Very low	
Loss of land for cultivation	yes	Negative	15 = High	Medium	yes	Negative	15 = High	Medium	
Visual / Aesthetic impact	Yes	Negative	5 = Medium	Very low	Yes	Negative	5 = Medium	Very low	
Hydrocarbon Spills	Yes	Negative	11,25 = High	Low	Yes	Negative	11,25 = High	Low	
Traffic	Yes	Negative	3,5 = Low	Low	Yes	Negative	3,5 = Low	Low	
Safety	Yes	Negative	4,5 = Low	Low	Yes	Negative	4,5 = Low	Low	
Improvement in livelihood of local community	None required	Positive	7,5 = medium	High	None required	Positive	7,5 = medium	High	
Impact on Local services	Yes	Negative	4,5 = Low	Low	Yes	Negative	4,5 = Low	Low	
Benefits to local economy	None required	Positive	5 = Medium	Medium	None required	Positive	5 = Medium	Medium	

OPERATIONAL STAGE IMPACT SUMMERY

OPERATIONAL STAGE IMPACTS	ALTERNATIVE A (PROPOSAL)				ALTERNATIVE B				
	Mitigation Required	Nature of Impact	Significance Rating before mitigation	Significance Rating after mitigation	Mitigation Required	Nature of Impact	Significance Rating before mitigation	Significance Rating after mitigation	
DETAILS									
Noise	Yes		Very Low 1	Very Low	Yes		Low 3	Low	
Water pollution (water courses)	Yes		Low 3	Low	Yes		Low 3	Low	
Soil disturbance /Erosion	Yes		Medium 7	Low	Yes		Medium 7	Very low	
Air Pollution	Yes		Medium 4	Low	Yes		Low 4,5	Low	
Stormwater management	Yes		Low 3	Low	Yes		Medium 9	Low	
Job Creation	None Required		Medium 9,75	Medium	None Required		High 12,75	Very High	
Visual / Aesthetic impact	Yes		Low 2,5	Low	Yes		Low 3,75	Low	
Traffic	Yes		Low 3,5	Low	Yes		Medium 5,25	Low	
Safety	Yes		Low 3,5	Low	Yes		Medium 5,25	Medium	
Impact on Local services	Yes		Low 5,5	Medium	Yes		Medium 5,5	Low	
Benefits to local economy	None required		Medium 6	Medium	None Required		Medium 7	Medium to high	
Threat to bio-security	Yes		Medium 6,5	Medium	Yes		High 10,5	High	

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.

Alternative A (preferred alternative) _ The Proposal

Biophysical environment

The proposed development will result in the clearing of vegetation on the proposed site for the construction of the chicken houses and facilities. . The clearing of vegetation is likely to result in the exposing the land and possible surface runoff pollution. This can be mitigated by implementing appropriate stormwater management strategies, including proper channelling of the stormwater during construction and operational phases.

Other impacts that were identified, for the construction phase are noted to be mitigatable. Noise and dust, and oil spillage can be mitigated by avoiding and managing the occurrences. Impacts during the construction stage may be short term and may end when construction is completed.

Operational stage impacts on the natural environment can also be mitigated if proper strategies are put in place. The possibility of mitigating these impacts reduces their significant levels considerably, to low significance. The neglect of mitigation measures, such as waste management could result in severe health hazards. This therefore infers the need to take the recommendations made herein and in all applicable regulations and guidelines seriously.

A synoptic view of the environment in terms of biodiversity, on the physical site and relevant biodiversity literature and databases and as assessed herein, indicated there no critical biodiversity features are located within the development boundaries or within the immediate environments. It is therefore concluded that the development as propose4d

Socio economic impacts during the construction stage will include employment opportunities, for both labours and suppliers of construction materials. The spiral effect of these will contribute to the improvement of economic activities during this period.

During operational stage, more people are likely to be employed on permanent basis. This may reduce the unemployment in the area further, and also bring improvement in livelihoods of the local community. The outputs from the farm, will also continue to service the local market, and going a long way in stimulating economic activities within the area. Local distributors of chicken products will continue to be in business, and the local consumers will have sustained supply.

From this assessment, it is observed that most of the negative impacts can be readily mitigated. Also, the positive impacts from the proposed development far outweigh the identified negatives (if properly mitigated). A no go alternative may therefore be unwarranted, given the absence of fatal flaws with the proposed development on this farm.

No-go alternative (compulsory)

A no go alternative will entail no establishment of the poultry facility. This will mean that the farm will continue to be used for the current activities for which it is being subjected to, to include growing of vegetables and whatever else the farmer may decide to undertake.

The No-development option will mean that the anticipated effects of impacts of the development will not occur. All the envisaged contrition stage impacts, such as dust, noise and so forth will not occur due to chicken egg production. Given that portions of the farm are being ploughed for crop production, the activities of noise and dust may still occur at those times where these activities are being carried out.

In addition, even though the removal of land cover may not occur as a result of chicken production if a no-go alternation is the case, land cover may still be removed if the farmer decides to cultivate the portions for crop production or any other activity. Hence, it is fairly concluded that the from a biodiversity impact perspective, a no-go alternative may not necessarily preserve any parts of vegetation that may be on the farm.

From a socio-economic perspective, the no-development option may rather avert the potential economic benefits that were envisaged. The farm is expected to constitute to creating some employment, and also contributing to food security in the area, and in the Gauteng region broadly. It is also expected to continue to the stimulation of economic activities along the value chain. All these direct and indirect benefits or positive impacts may not occur should a no-development option be adopted.

From this perspective, it can be asserted that the potential positive impact far outweigh the envisaged negative impacts, hence a no-go alternative may not be necessary.

Alternative B – Land Alternative B

Biophysical environment

The land alternative available is at the southern west part of the farm. The proposed development will result in the clearing of vegetation on the proposed site. The clearing of vegetation is likely to result in the exposing the land and possible surface runoff pollution. This can be mitigated by implementing appropriate storm water management strategies, including proper channelling of the storm water during construction and operational phases. Other impacts that were identified, for the construction phase are noted to be mitigatable. Impacts of noise and dust on the proposed land alternative will also affect the neighbouring farm since the site is closer to the neighbouring farm household. However, during construction stage, noise, dust and oil spillage can be mitigated by avoiding and managing occurrences. The site alternative is also at a distance from the accessible road, which increases the footprint of the proposed development, for example trucks and cars for delivery will travel a longer distance inside the farm and a road will have to be created for them. Impacts during the construction stage may be short term and may end when construction is completed. Operational stage impacts on the natural environment can also be mitigated if proper strategies are put in place. The possibility of mitigating

these impacts makes reduces their significant levels considerably, to low significance. During operational stage, the impacts envisaged include bad odour, which will be a problem to the neighbouring farm because the site alternative is much closer with the neighbouring farm household, and the wind direction will make it worse when it is blowing through the direction of the neighbouring farm and it will cause nuisance. The neglect of mitigation measures, such as waste management could result in severe health hazards. This therefore infers the need to take the recommendations made herein and in all applicable regulations and guidelines seriously.

Socio economic impacts during the construction stage will include employment opportunities, for both labours and suppliers of construction materials. The spiral effect of these will contribute to the improvement of economic activities during this period.

During operational stage, more people are likely to be employed on permanent basis. This may reduce the unemployment in the area further, and also bring improvement in livelihoods of the local community. The outputs from the farm, will also continue to service the local market, and going a long way in stimulating economic activities within the area. Local distributors of chicken products will continue to be in business, and the local consumers will have sustained supply.

However, given the location of land parcel B, the establishment of the poultry houses may be too close to the neighbour's house, and this is likely to be a nuisance during construction and operation, given the dominant wind direction.

In addition, this portion of the land according to the farmer is more conducive for the production of crops, and may fall within the Primary Agricultural Land classification in terms of the GDARD agricultural land zoning. It will therefore be ideal to use these portions purely for crop production, rather than poultry houses.

Alternative C

None

For more alternatives please continue as alternative D, E, etc.

SECTION E. RECOMMENDATION OF PRACTITIONER

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

YES	NO
-----	----

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

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

Even though the overall assessment of the proposed development is not expected to produce any significantly detrimental effects to the environment, it is critical that the following recommendations be taken into consideration.

- It is recommended that all issues identified and recommendations given herein be carefully considered and put into action should the development be implemented.
- It is the duty of the developer to exercise the necessary duty of care to the environment, and to ensure that no harm is caused to the environment by the development and vice-versa.
- A site specific stormwater management plan should be designed and implemented, during both construction and also integrated into the design of the infrastructure, to form part of operational stage management procedures.
- A waste management and a biosecurity management plan should be put in place prior to the commencement of the proposed development. These should be displayed on site at all times.
- The EMPr should be used as a guide for managing and monitoring construction stage activities.
- A suitable, experienced and independent environmental control officer (ECO) should be engaged to enforce and supervise the implementation of the EMPr, during construction.

Is an EMPr attached?

YES	<input checked="" type="checkbox"/>
-----	-------------------------------------

The EMPr must be attached as Appendix F.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

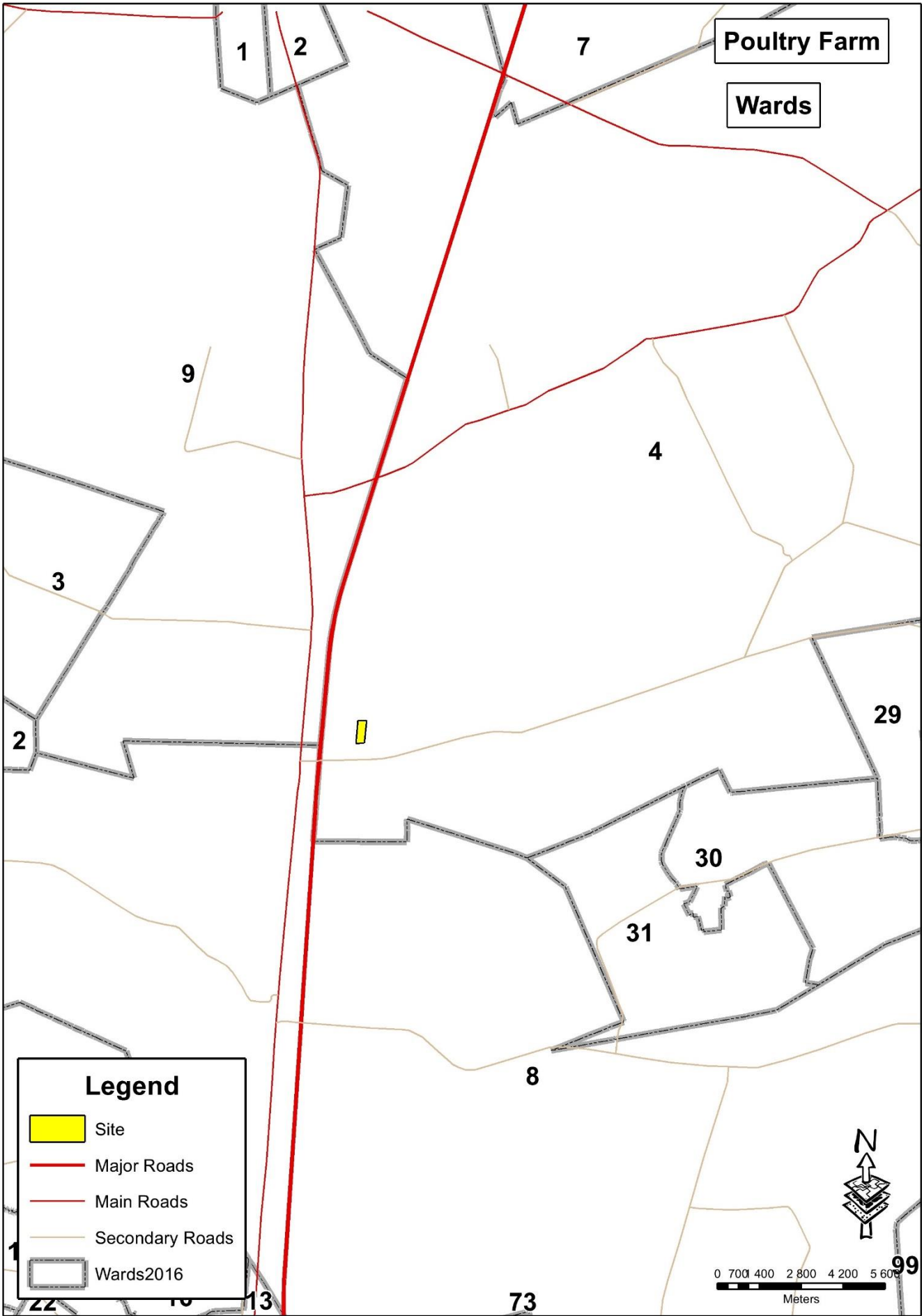
I, _____, declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

Signature of the Environmental Assessment Practitioner:

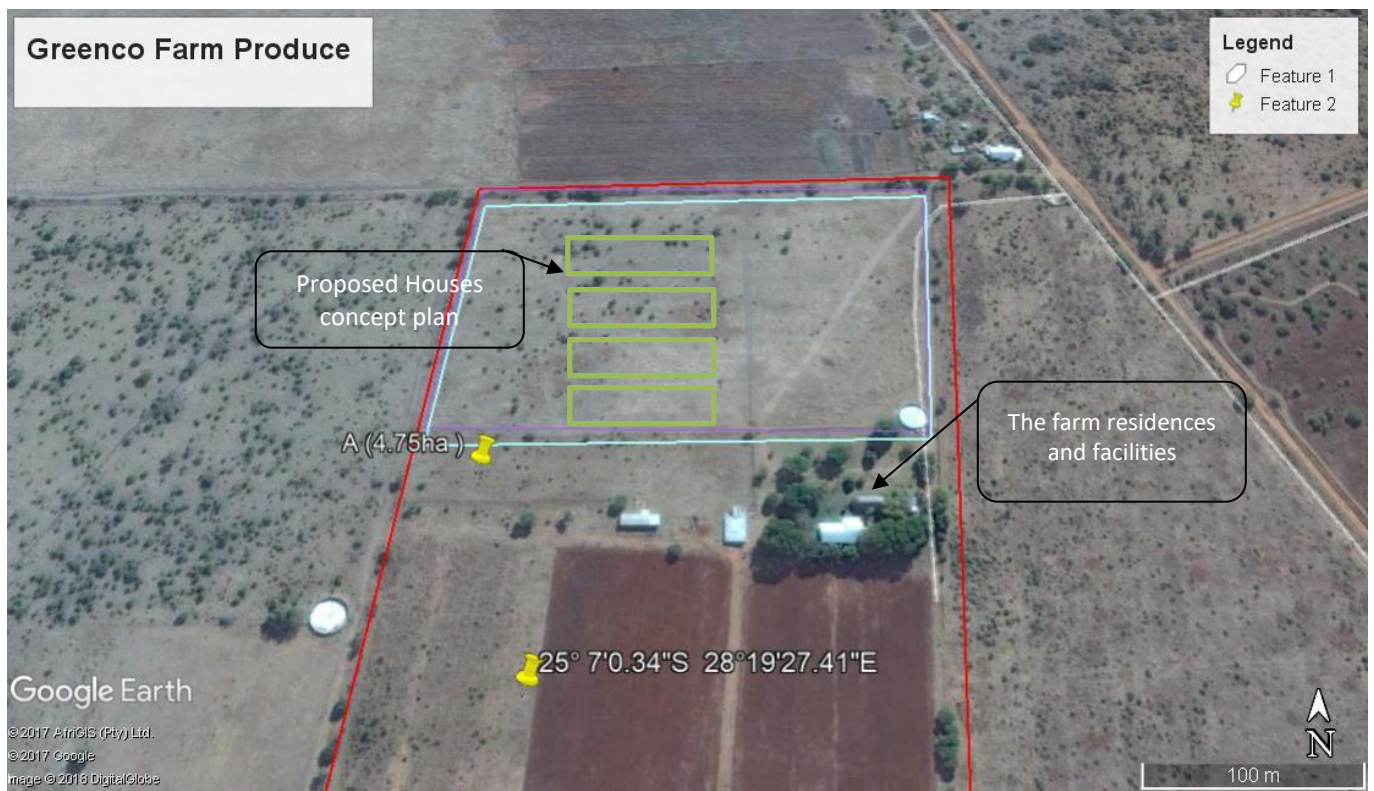
Name of company:

Date



APPENDIX A: SITE PLAN(S)





Site **Alternative A** (Proposal) with Proposed Layout Plan



Site **Alternative B** with Concept layout plan

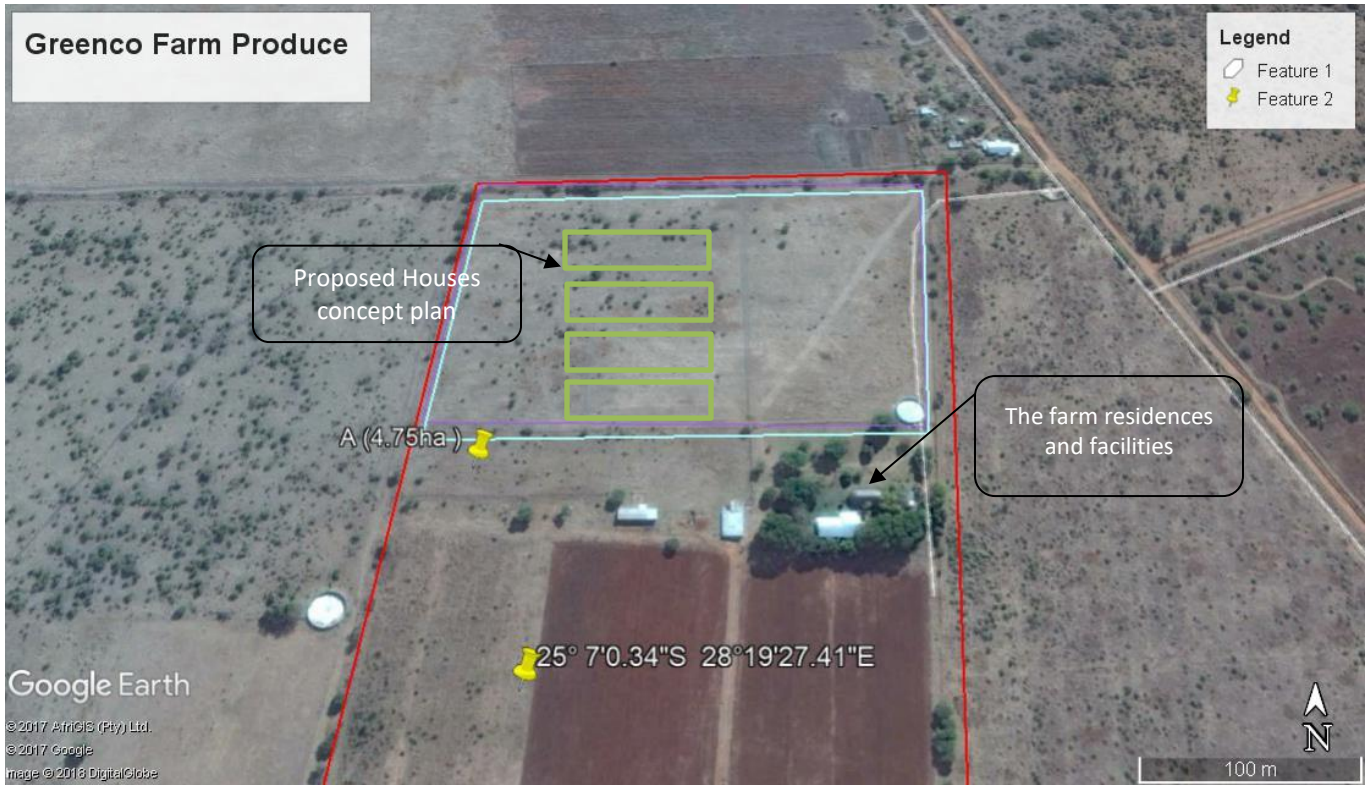
APPENDIX B: PHOTOGRAPHS



Photographs of the site, showing the nature of the receiving environment



Photograph of the site, showing the reservoir to catch rain water



Aerial photograph showing the position of the farm

APPENDIX C: FACILITY ILLUSTRATION(S)



Exterior of the automated concept poultry houses, with ventilations and feeding silos mounted.



Photographs illustrating typical looks of the interior of the proposed houses. Photograph above, shows the envisaged view of an operational facility, while the second photograph shows the steel cages, equipped with digital control panels and feeding and laying troughs.



Exterior of the manual ventilated poultry house, with a side foldable plastic cover.

APPENDIX E: COMMENTS AND RESPONSE REPORT (PUBLIC PARTICIPATION REPORT)

ENVIRONMENTAL IMPACT ASSESSMENT (BASIC ASSESSMENT)

& ECONOMIC VIABILITY ASSESSMENT FOR PORTION 35 OF THE FARM SPRINGBOKVLAKTE NO.41 JR.

PUBLIC PARTICIPATION REPORT

PORTION 35 OF THE FARM SPRINGBOKVLAKTE NO.41 JR.

PREPARED FOR:

PREPARED BY:

Greenco Pty Ltd

243 Albertus Street, La Montagne, Pretoria

Contact Person: Mr Innocent Dube

Email: dubebeke@gmail.com



Development Impact Group

Unit 27. Block 15, Central Office Park, 257 Jean Avenue, Centurion,
0157, Pretoria. Email admin@developmentimpact.co.za

TABLE OF CONTENTS

- 1. INTRODUCTION.....
- 2. PUBLIC ADVERTISEMENT.....
 - 2.1 Site notices.....
 - 2.2 Newspaper advertisement.....
- 3. BACKGROUND INFORMATION DOCUMENT (BID).....
- 4. PUBLIC MEETINGS.....
- 5. COMMENTS FROM STAKEHOLDERS.....
- 6. APPENDIX.....
- 7. REGISTER OF INTERESTED AND AFFECTED PARTIES (I&As).....
- 8. COMMENTS FROM INTERESTED AND AFFECTED PARTIES.....

1. INTRODUCTION

This report is a summary of the public participation process and activities undertaken so far for Greenco basic assessment process. This report covers all the public participation process of Greenco (PTY) LTD.

2. PUBLIC ADVERTISEMENT

2.1 Site notices

Site notices were placed at vantage points of the farm . This was done in conjunction with the farmer. Photographs of some of the Site Notices are attached in Appendix E (i).

2.2 Newspaper advertisement

Also, a public notice about the development was placed in the Capricorn review newspaper which circulates within the project area. A copy of the advert is attached as appendix 2.

3. BACKGROUND INFORMATION DOCUMENT (BID)

Background Information was prepared and distributed to the neighbouring farms. All those who received such information were encouraged to register as interested and affected parties if they so wish. A copy of the BID and list of people to whom it was distributed are attached in Appendix E (iii). Few responses were received from Interested and Affected Parties (IAP). From the comments received, almost all community members support the proposed development. So far no objections were received from the comments received. This process is still on-going until the end of the month, and any further comments received will be attended to or inculcated into the planning of the development.

4. PUBLIC MEETINGS

From the interactions with the public so far, it didn't appear that there were any critical issues for which public meetings would be called for. None-the-less, meetings were held with stakeholders, including meetings with the beneficiary stakeholder and the municipality.

5. COMMENTS FROM STAKEHOLDERS

The draft basic assessment report (BAR) is being distributed to key stakeholders (relevant government departments and municipalities) for comments. Any comments received will be inculcated into the final report to be competent authority.

6. APPENDIX E

PUBLIC PARTICIPATION ATTACHMENTS

- i. Site Notice
- ii. Newspaper advertisement
- iii. Background Information Document (BID), and Distribution List
- iv. Comments and response to interested and affected parties
- v. Interested and affected parties register

i. SITE NOTICE

PUBLIC NOTICE

BASIC ASSESSMENT PROCESS (EIA)

Proposed Poultry Farm On Portion 35 Of The Farm Springbokvlakte NO. 41 JR

Notice is hereby given in terms of the regulations published in Government Notice No. GNR 38282 of December 2014 under the National Environmental Management Act (Act No. 107 of 1998) as amended, of the intent to carry out the following activity:

Greenco (Pty) Ltd represented by Mr S. Dube intends to establish a poultry farm on Portion 35 of the farm Springbokvlakte NO. 41 JR, within BelaBela Local Municipality. The proposed initiative intends to establish a poultry farm with a production capacity of keeping 200,000 poultry, for egg production. Each structure is estimated to have a carrying capacity of about 25000 birds and will be fully automated. This triggers activities within Listing Notice 1 of GNR 983, of the National Environmental Management Act (Act 107 of 1998) for which environmental authorisation is required.

A Basic Assessment (EIA) process is being undertaken by Development Impact Group (DIG) and an application for authorisation for this project will be submitted to the Limpopo Department of Economic Development, Environment & Tourism (DEDET). Further details of the proposed activity may be obtained from the contact person below.

All interested and Affected Parties (I&APs) are encouraged to submit their names, contact details and written interest or comments relating to the above development to the contact persons given below within 30 days of the date of publication of this advertisement.

CONTACT DETAILS:



Development Impact Group (DIG):
Unit 27, Block 15, Central Office Park, 257 Jean Avenue, Centurion, 0157
Contact Person: Mr MacCarthy Hono-Siabi Tel/Cel: 078 9855 454 Fax 0867763325
E-mail: siyoni@live.co.za or macCarthy@developmentimpact.co.za

Site notices on the site



ii. NEWSPAPER ADVERTISEMENT

Legal Display:
Fax: 015 293 9496

PLEASE NOTE:
We reserve the right to change the above deadline at any given time!

Payment Methods

Adverts will only be accepted on a cash basis before being published. **PAYMENTS CAN BE MADE AS FOLLOWS:**

- At our offices at NMG
- By Credit Card
- Cto: FN8
- Name: CIP LTD /s/a Northern Media Group Branch Code: 25 31 45
- Acc No: 621 049 275 72

(ALWAYS HAVE YOUR ID NO / CO REG NR READY)

All advertisers must have a telephone

PLEASE NOTE THE FOLLOWING:
Proof of Payment MUST be faxed through to: 015 293 9496

Reference number or telephone number must appear on deposit slip.

CONDITIONS OF ACCEPTANCE. ADVERTISERS PLEASE NOTE:

- Although every effort will be made to meet the client's wishes, the date of publication, distribution, the form and position of the article, the name and/or title and format of the advertisement, the number of copies and place of distribution, shall be at the sole discretion of the publisher.
- Errors and omissions must be reported within the first week of insertion.
- When querying an advertisement a reference number MUST be quoted.
- Credit will not be given for typographical errors which do not lessen the effectiveness of the advertisement.
- Cancellations & alterations must be phoned through before 9am on day of deadline prior to publication.
- The Publisher is entitled to withhold any advertisement from publication and to cancel any advertisement under that has been accepted.
- Space is sold to the advertiser for the purpose of making announcements concerning his own business and may not be used for attacking or making malicious comparisons with other advertisers, firms, institutions or persons.

0702 GENERAL NOTICES

NDIVHADZO KHUMBELO YA U SHANDIKISA KUSHUMBELE KWA THULAMELA LAND-USE MANAGEMENT SCHEME 2008 NGA SECTION 62(1) OF THULAMELA LOCAL MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAW 2015. READ TOGETHER WITH PROVISIONS OF SPATIAL PLANNING AND LAND USE MANAGEMENT ACT 16 OF 2013

Vha khou divhadzwa uri na khumbelo yo iwalo nga TMM Development Consultancy, yo imela mu iti wa shandiko yo bulwaho aho ntha kha EP 1063. Thohoyandou M u bva kha "Residential 1" uri vha ntha kha EP 1063. Thohoyandou M u bva kha "Residential 2" uri hawu na dzi Residential Buildings. Vhane vha takalela u vhalo ntha kha khumbelo yi, manwalo aya a khou wanala ofisini ya mngere mulwane wa kudzuzanyele na mvelandzo, Masipala wa Thulamela, Thohoyandou. Manwalo a khumbelo yo bulwaho aho ntha ado wanala lwa shilinga tshandiso maduvha a 28, u bva nga dzi 14 Fulwana 2017. Vhane vha vha na mbilelo na yi khumbelo vha rwalele masipala wa Thulamela kha Diresi levhelaho, Thulamela Local Municipality, Office 103, Private bag X 5086, Thohoyandou, 0960.

Diresi ya feme yo itaho khumbelo lino ndi PO Box 915 Vuwani 0952
Contact no: 084 496 3168
email: tmhconsulting@gmail.com
08400636

wa: Kudzuzanyele na mvelandzo, kha lula lwa u thoma kha masipala wa Thulamela. Thohoyandou lwa shilinga tshandiso maduvha a furano (30) ubva nga dzi 28 Fulwana. Vha re na mbilelo malugana na yi khumbelo vha rwalele minidzere wa masipala wa Thulamela kha diresi levhelaho; P.O. Box 5086, Thohoyandou kana vha ise ofisini ya zwanvelaphandis nga shilinga tshandiso vhuakhi ha 07:45 na 16:30. Diresi ya mune wa tshandiso malugana na yi khumbelo.

Tshifudi village Stand No. 118 0979
Cell: 083 567 1953
Tel: 015 962 7518
Email: mulovhoczime@thulamela.gov.za
LE001412

You will find that everything in life exacts a price, and you will have to decide whether the price is worth the prize.

- Former US Senator Sam Nunn

kushumisele kwa masu a divheho sa EP 0663 u bva kha residential 1 ane a vha mavu a u dzula uye kha Special ane avha mavu a tshentshele hu u itela u itshwe ha tyre outlet and filament centre. Vhane vha hanedzani na khumbelo yi zw tshi katela zw ikedzaho tsho dzavho na zwiabodombedzwe zwa vhudivhadzani vha nga nekeda vhuwapha havho nga u to rwala kha mulanguli mulwane wa Masipala kha Thulamela Local Municipality, Private Bag X5086, Thohoyandou 0960 u bva nga dzi 21 Fulwana 2017 u swika dzi 1 Thangule 2017. Pulane na manwalo a yekano na khumbelo yi zwitso wanala kha ofisi ya minidzere mulwane wa kudzuzanyele na mvelandzo sa zwo sumbedzaho aho thasi lwa maduvha a edanaho Furano (30) ubva davha la u thoma la u andadziwa ha ndivhadzo kha gazete na gannoni. Adiresi ya ofisi dza masipala i divheho sa Thohoyandou Civic Centre, Old Agriven Building

Adiresi ya dzhendzedzi lire maluyoni malugana na yi khumbelo i divhesa Unit 07 248 Sullivan Avenue Centurion
Telephone: 012 757 2884 Fax: 086 564 7495
e-mail: info@lanove.co.za
maduvha a u andadziwa ha ndivhadzo a dovha dzi 19 Fulwana 2017 na dzi 26 Fulwana 2017
Adiresi ya dzhendzedzi lire maluyoni malugana na yi khumbelo i divhesa Unit 07 248 Sullivan Avenue Centurion
Telephone: 012 757 2884 Fax: 086 564 7495
e-mail: info@lanove.co.za
maduvha a u andadziwa ha ndivhadzo a dovha dzi 19 Fulwana 2017 na dzi 26 Fulwana 2017

Qualifications and Experience:

- Reasonable experience in electronics, experience in LPM industry will be an added advantage.
- Must be willing to travel and work extended hours.
- Candidate must have a combination of prior learning in Electrical Engineering or Electronics (N4).
- Driving experience of 3-5 years.
- Knowledge of Gering Industry.

If you meet the above mentioned requirements, please e-mail your CV, Certified Copies of Qualifications, Copy of Driver License and Covering Letter to maggie.molaba@nmgtroubgroup.co.za or Further details contact Maggie: 015 293 981820

Closing Date: 04 AUGUST 2017.

If you have not had a response within 1 week of the closing date, please regard your application as unsuccessful.

The appointment of the candidate will be at the Company's sole discretion, and taking into account the Company's Employment Equity Policy. The Applicant will be subject to Criminal and Credit Check.

for helping yourself, the other for Helping others. - Audrey Hepburn



Word deel van die koerantwese

Noordelike Mediagroep bied 'n loopbaangeleentheid in die volgende pos:

Subredakteur

(Afrikaans en Engels)

Die hoofdoel van 'n subredakteur is om te sorg dat NMG se publikasies foutloos en in pas met die koerante se styl is.

Beslik jy oor die volgende eienskappe?

- Kritiese denkervermoë: Daar sal van jou verwag word om kopie te evalueer om te bepaal of dit binne die aanvaarbare standarde van die koerant val.
- Uitstekende mensevaardighede: Jy moet gemaklik met verskeie spanne kan werk.
- Die vermoë om uiters druk te hanteer: Jy moet 'n uitmuntende geskiedenis hê van stresvolle sportyfe bestuur.
- Probleemoplossingsvaardighede: Jy moet oplossingsgedrewe kan funksioneer in 'n hoëdrukomgewing.
- 'n Uitstekende algemene kennis en die vermoë om te leer na te vors en na te gaan, en het jy 'n Goetie kennis van mediareg, of is bereid om te leer.

Dan behoort die volgende pligte in jou kraal te val:

- Om te verseker die kopie is maklik om te lees, in Afrikaans én Engels, in die toon en styl relevant tot die merk en van 'n hoë standaard.
- Die herskryf/redigeer van kopie om te sorg dit het die regte struktuur en lengte en voldoen aan die titel se stylgids.
- Die vermoë om innoverend en kreatief te wees waar hoof- en onderskrifte ter sprake is.
- Proefies en teken blaai af wanneer nodig.

'n Tersiere kwalifikasie in tale en/of joernalistiek sal voordelig wees.

Kandidate wat aan die vereistes voldoen, kan 'n CV en afskrif van hul ID stuur aan editor@nmggroup.co.za.

Sluitingsdatum vir aansoeke is 7 Augustus 2017. Aansoeke kan as onsuksesvol beskou word indien ons nie binne 21 dae na die sluitingsdatum met u in verbinding tree nie. Die reg word voorbehou om nie 'n aanstelling te maak nie.

PUBLIC NOTICE

BASIC ASSESSMENT PROCESS (EIA)

Proposed Poultry Farm On Portion 35 Of The Farm Springbokvlakte NO. 41 JR

Notice is hereby given in terms of the regulations published in Government Notice No. GNR 3822 of December 2014 under the National Environmental Management Act (Act No. 109 of 1998) as amended, of the intent to carry out the following activity:

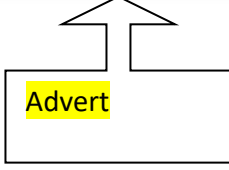
Greenco (Pty) Ltd represented by Mr I. Dube intends to establish a poultry farm on **Portion 35 of the Farm Springbokvlakte NO. 41 JR, within Bela Bela Local Municipality.** The proposed initiative intends to establish a poultry farm with a production capacity of keeping 200,000 poultry, for egg production. This triggers activities within Listing Notice 1 of GNR 983, of the National Environmental Management Act (Act 107 of 1998) for which environmental authorisation is required.

A Basic Assessment (EIA) process is being undertaken by Development Impact Group (DIG) and an application for authorisation for this project will be submitted to the Limpopo Department of Economic Development, Environment & Tourism (LIDDET). Further details of the proposed activity may be obtained from the contact person below.

All Interested and Affected Parties (I&APs) are encouraged to submit their names, contact details and written interest or comments relating to the above development to the contact persons given below within 30 days of the date of publication of this advertisement.

CONTACT PERSONS:

Development Impact Group (DIG):
Unit 7, Block 15, Central Office Park, 257 Jean Avenue, Centurion, 0157
Contact Person: Mr MacCarthy Honu-Slabi Tel/Cell: 078 9855 494 fax 0867763325
E-mail: bizyon@live.co.za or macCarthy@developmentimpact.co.za



iii. BACKGROUND INFORMATION DOCUMENT (BID), AND DISTRIBUTION LIST



Unit 27, Block 15, Central Office Park, 257 Jean Avenue, Centurion, 0157 Tel 012 664 2039 Cell: 0789855494

Email: bizycon@live.co.za / admin@developmentimpact.co.za

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS PORTION 35 OF THE FARM SPRINGBOKVLAKTE NO. 41 JR, GREENCO POULTRY FARM –PUBLIC PARTICIPATION PROCESS BACKGROUND INFORMATION DOCUMENT (BID)

BACKGROUND

Greenco Farm Produce (PTY) LTD intends to establish a poultry farm on portion 35 of the farm Springbokvlakte NO. 41 JR, within the Waterberg District Municipality. The farm currently is primarily being used for crop production, specifically for the production of vegetables.

A preliminary assessment of the proposed activities concludes that the development of the poultry facilities requires environmental authorisation in terms of section 24D of NEMA. This constitutes a listed activity for poultry establishment that needs environmental authorisation. Development Impact Group has been appointed to conduct the Environmental Impact Assessment for the establishment of the poultry production and facilitate all necessary approvals.

DESCRIPTION OF THE PROPOSED PROJECT SITE

The proposed development is going to take place at Portion 35 of the farm Springbokvlakte NO.41 JR. The farm is located within the Bela-Bela Local Municipality in Waterberg District Municipality of Limpopo Province. The GPS coordinates of the farm are 25°06'53,3"S and 28°19'32"E. The size of the farm is about 21,33ha, but it is envisaged that between 5ha-10ha may be required for the proposed development. The farm is located on a mostly flat terrain with a few gentle sloping areas, and no steep areas exist on the site. The geological composition of the site consist mainly of basalt, which are extremely hard rocks. The flattish to gentle sloping nature of the site gives rise to no clear drainage systems or watercourses on the site. In terms of the South African Biodiversity Institutes (SANBI) classification, vegetation on the site is classified as the Springbokvlakte Thornveld (SVCB 15) which falls within the Savanna vegetation biome (Mucina, L. & Rutherford, M.C, 2006) and has no critical biodiversity issues on the site. Most portions of the site are currently being cultivated for vegetable production and have vegetation removed.

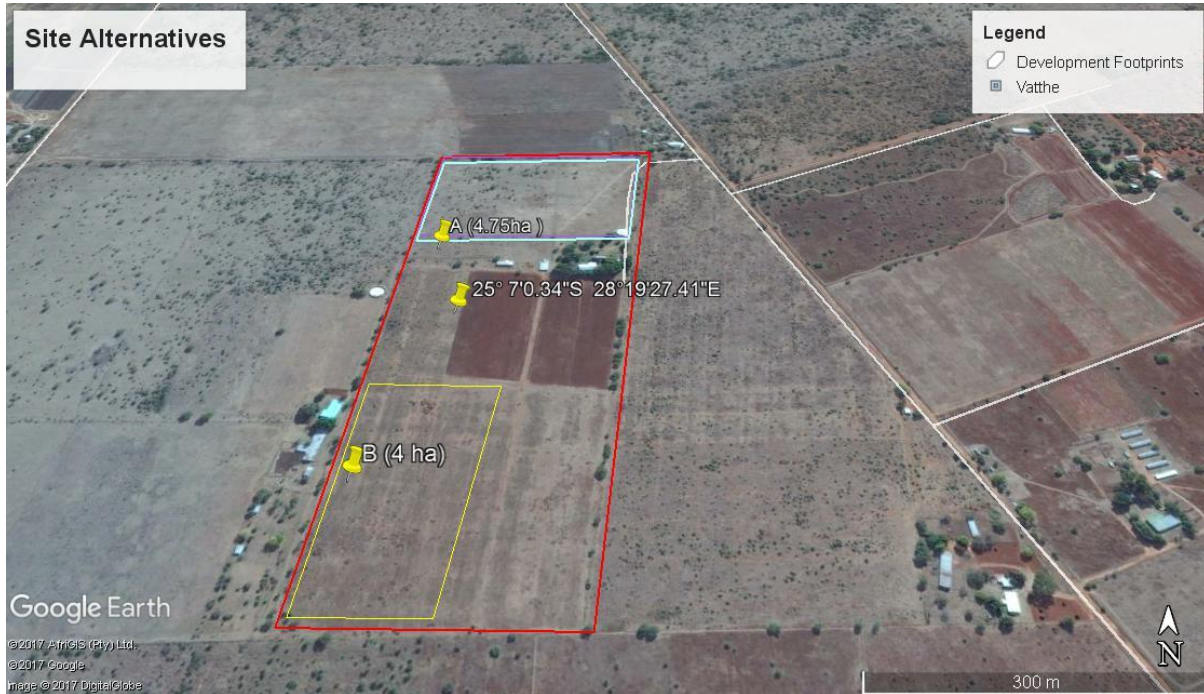
Environmental Process & Considerations

The proposed initiative intends to establish the poultry farm to capacitate 200 000 chicks, of between 1 day to 20 days and more. The poultry farm will be fully automated system with environmentally controlled production system.

This triggers activities within Listing Notice 1 of GNR 983, of the National Environmental Management Act (Act 107 of 1998) for which environmental authorisation is required.

Potential impacts are envisaged be mostly economic spinoffs into the local and regional economy. Potential negative impacts include biosecurity risks should the farm not be managed properly. However, it is envisaged that this is likely to be properly mitigated to the standards of the South African Poultry Production industry standards and best practices.

A Basic Assessment (EIA) is being undertaken by Development Impact Group and an application for authorisation for this project will be submitted to the Limpopo Department of Economic Development, Environment and Tourism (LEDET). Further details of the proposed activity may be obtained from the contact person below.



Your involvement

Environmental Assessment plays a vital role to ensure that it provides the necessary and adequate information on which to base the decision of whether to grant environmental authorisation on the anticipated project. This environmental approval will also give information on whether or not and if yes under which conditions the authorisation will be granted. There are numerous stakeholders that are involved from entirely different sectors and each contributes towards a desirable conclusion. Your remarks, if any will enhance all appropriate concerns or appraisals that are assessed in the EIA. You are therefore encouraged to fill in the enclosed registration/comment form or write a letter, call, email or send a fax the EAP on the following contacts in case you want to comment on the proposed development.

REGISTRATION AND COMMENT FORM

Accompanying Background Information Document

Should you have any comments regarding the proposed project, please complete and send the attached comments sheet to either of the following contact person:

Mr Maccarthy Honu-Siabi

Tel: 012 664 2039 Cell: 0789855494, Fax: 086 776 33 25

Email: bizycon@live.co.za maccarthy@developmentimpact.co.za

TITLE		FIRST NAME	
INITIALS		SURNAME	
ORGANISATION/TOWN		E MAIL	
POSTAL ADDRESS			
TEL NO.		POSTAL CODE	
CELL		FAX NO.	

REGISTRATION AS AN INTERESTED OR AFFECTED PARTY (I&AP) (Please circle applicable box)

Please formally register me as an interested and affected party so that I may receive further information and notifications during the EIA process	YES	NO
I would like my notification by	Letter (mail)	
	E Mail	
	Fax	
	Telephone	
In terms of the GNR 982 (EIA process regulations) I disclose below any direct business, financial, personal or other interest that I may have in the approval or refusal of the application.		

COMMENTS (you may use a separate sheet if you so wish)

I have no objections to the proposed development. My reasons are

.....
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.....
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.....
.....

I support the proposed development. My reasons are:

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.....
.....
.....
.....

I object to the proposed development. My reasons are:

.....
.....
.....
.....
.....
.....

Other I&APs to be contacted are:

.....
.....

Signed BID Distribution Form.



Development Impact Group

Unit 27, Block 15, Central Office Park, 257 Jean Avenue, Centurion, 0157 Tel 012 664 2039 Cell: 0789855494
 Email: bizycon@live.co.za / admin@developmentimpact.co.za

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS PORTION 35 OF THE FARM SPRINGBOKVLAKTE NO. 41 JR,

BID DISTRIBUTION LIST

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Appendix F: Environmental Management Programme (EMPr)

GREENCO POULTRY FARM

ENVIRONMENTAL MANAGEMENT PROGRAMME

(EMPr)

(Draft)

Prepared for:

Greenco Pty Ltd

243 Albertus Street, La Montagne, Pretoria

Contact Person: Mr Innocent Dube

Email: dubebeke@gmail.com

Prepared By:



Development Impact Group

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Table of Contents

I. Glossary of Terms and Abbreviations (See Annexure A)	117
II. Key to Acronyms	117
SECTION 1: INTRODUCTION	118
1.1. Background	118
1.2 Aims and objectives of the EMPr	118
1.2.1 Aim	118
1.2.2 Objectives	118
SECTION 2: REGULATORY / LEGISLATIVE CONTEXT	119
DEALING WITH NON-COMPLIANCE WITH THE EMPr (Penalties/ Incentives)	119
2.1 Key Legislation and Regulatory Requirements	119
2.1.1 National Environmental Management Act No. 107 of 1998	119
2.1.1.1 Penalties for non-compliance	119
2.1.2 National Heritage Resources Act No. 25 of 1999	119
2.1.2.1 Penalties for noncompliance	119
2.1.3 Occupational Health and Safety Act No. 85 of 1993	120
2.1.3.1 Penalties for noncompliance	120
2.1.4 Other necessary legislations but not limited to:	120
2.2 KEY ROLE PLAYERS AND THEIR RESPONSIBILITIES	120
SECTION 3: SENSITIVE AREAS OF THE PROJECT AREA	120
3.1 Protecting the Integrity of the Ecosystem	120
3.2 Ensuring Health and safety	122
SECTION 4: IMPACTS, MITIGATION MEASURES, AND MONITORING	122
5. CONCLUSIONS AND RECOMMENTATIONS	141
Annex A: Glossary	143
ANNEX 2: CHECKLIST FOR MONITORING ENVIRONMENTAL PERFORMANCE	147

I. Glossary of Terms and Abbreviations (See Annexure A)

II. Key to Acronyms

- LEDET Limpopo Department of Economic Development, Environment and Tourism
- DME Department of Mineral and Energy
- ECO Environmental Control Officer
- EMPr Environmental Management Programme
- EA Environmental Authorisation
- ARC Agriculture Research Council
- BA Basic Assessment
- BAR Basic Assessment Report
- BID Background Information Document
- DEA Department of Environmental Affairs
- DWA Department of Water Affairs
- EIA Environmental Impact Assessment
- EIR Environmental Impact Report
- EAP Environmental Assessment Practitioner
- EIR Environmental Impact Report
- I&APs Interested and/or Affected Parties
- LRAD Land Reform for Agricultural Development
- NEMA National Environmental Management Act, 1998(Act 107 of 1998)
- NHRA National Heritage Resources Act
- SAHRA South African Heritage Resource Agency
- SANBI South African National Biodiversity Institute

iii. Authors /Contributors

SECTION 1: INTRODUCTION

1.1. Background

Current environmental legislation requires that an assessment of potential environmental issues is undertaken as an important component of development projects. The Environmental Impact Assessment process identifies potential impacts that may arise at various stages of the development process and how these impacts can be mitigated. An Environmental Management Plan serves as a guideline.

Development Impact Group (PTY) LTD conducted the necessary environmental investigation that identified potential environmental impacts that may arise and made recommendations in the report on how these impacts can be managed, especially during construction stages of the development.

- This EMP is a key environmental document, the content of which the line contractor must comply with during the construction process with the assistance of an environmental control officer and the site engineer and all relevant role players. This is to include any post construction rehabilitation work, which may be needed and which would be carried out by the contractor or specialist subcontractor who he may appoint to do such rehabilitation.
- This EMP is developed in accordance with the requirements of the National Environmental Management Act.

1.2 Aims and objectives of the EMP

1.2.1 Aim

- This EMP outlines measures to be implemented in order to minimize the potential environmental impacts associated with construction of the proposed Poultry Houses and any associated infrastructure. It serves as a guide for the contractor and the construction workforce on their roles and responsibilities concerning environmental management on site, and it provides a framework for environmental monitoring throughout the construction period.

1.2.2 Objectives

- The EMP becomes a legally binding document upon granting of an environmental authorisation. The objectives of this EMP include:
- Encourage good management practices through implementation of the proposed development and ensure commitment to environmental issues;
- Define how the management of the environment is reported and performance evaluated;
- To point out necessary mitigation measures to be carried out
- Develop waste management practices based on prevention, minimization, recycling, treatment or disposal of wastes;
- Follow all monitoring procedures required to identify impacts on the environment; and;
- Provide guidance to the employees and contractors with regard to their environmental and legislative obligations.

SECTION 2: REGULATORY / LEGISLATIVE CONTEXT

The EPMr is prepared taking into cognisance relevant legislative instruments that relate to the proposed development. The onus lies on the applicant to ensure adherence to all necessary regulations. Contractors must be alerted of the existence of the EMPr and its legislative implications and the need to comply and a copy of the EMPr must be kept on site at all times.

DEALING WITH NON-COMPLIANCE WITH THE EMPr (Penalties/ Incentives)

The contractor shall put in place procedures to motivate his staff to comply with the EMPr and to ensure that the work force is sufficiently aware and understand all necessary legal requirements related to the construction process. It is also important for the contractor to ensure that the workforce understands the implications of acts of non-compliance, or deliberate and malicious damage to the environment by any staff member.

2.1 Key Legislation and Regulatory Requirements

The following legislations are instrument for the construction process of the poultry houses. Noncompliance will lead to the penalties as set by the relevant sections of the related legislations:

2.1.1 National Environmental Management Act No. 107 of 1998

The National Environmental Management Act of 1998, Chapter 7 Part 1 Section 28 States that:

- Every person who causes, has caused, or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, and is responsible for the costs and repair of the environment.

2.1.1.1 Penalties for non-compliance

Chapter 7 of the National Environmental Management Act of 1998 indicates explicitly under subsections 8, 9, and 10 the steps that may be taken to recover environmental protection costs from any manager, agent or employee who omits or goes against this Act.

2.1.2 National Heritage Resources Act No. 25 of 1999

Chapter II Part 1 Section 27 (18) on Protection and Management of Heritage Resources provides guidelines that state that;

- No person will be allowed to destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any heritage sites without a permit issued by the heritage resources authority responsible for the protection of such site.

2.1.2.1 Penalties for noncompliance

Section 51 of National Heritage Resources Act of 1999, set penalties to non-compliance as follows:

- A fine or imprisonment for a period not exceeding five years or to both such fine and imprisonment.
- A fine or imprisonment for a period not exceeding three years or to both such fine and imprisonment.
- A fine or imprisonment for a period not exceeding two years or to both such fine and imprisonment.

2.1.3 Occupational Health and Safety Act No. 85 of 1993

Section 14 (a) of the Occupational Health and Safety Act of 1993 makes the contractor responsible for the health and safety of persons who may be affected by any acts of omissions and the safety of the working environment under his jurisdiction.

2.1.3.1 Penalties for noncompliance

Section 38 (1)(2) (3) and (4) of this Act explicitly explain the offence and penalties to any employer who does or omits an act thereby causing any person to be injured at workplace.

2.1.4 Other necessary legislations but not limited to:

Environmental safety requirements in other legislative instruments such as the National Veld and Forest Fire Act, (No.101 of 1998), National water Act, (No.36 of 1998) and Hazardous Substances Act, 1973 need to be studied and conditions observed during the implementation of his development.

2.2 KEY ROLE PLAYERS AND THEIR RESPONSIBILITIES

The successful implementation if the EMP hinges heavily on the proper identification, definition and allocation of roles to responsible persons or role players.

SECTION 3: SENSITIVE AREAS OF THE PROJECT AREA

- Although the broad environment within and around the proposed development area is important in general consideration of construction impacts, the contractor shall ensure that his workforce are aware of the key sensitive sites within the project area and that they understand how their activities could impact directly or indirectly on environmental resources of these areas. The following descriptions need to be particularly understood and adhered to in the implementation of this EMP.

3.1 The Development site

The development site is the farm which was previously used for cultivation, and the other portion of the farm is currently ploughed. The farm is already fenced and the development footprint will be mostly inside the farm. The proposed poultry houses will be placed at a position where indigenous vegetation are already degraded due to the previous activities which is cultivation. There are already some built infrastructures at the farm including a house for farm employees and a reservoir. The following figure shows the position of the proposed poultry houses:

3.2 Protecting the Integrity of the Ecosystem of the project site

- As part of conserving biological diversity and protecting the integrity of the ecosystem within development areas, sites that are typically rich in species diversity, contain the presence of rare or endangered species, function as a unique or intriguing habitat, or are heritage sites, are often mapped as “sensitive sites”. The sensitivity refers broadly to sites being sensitive to the activities of man, and therefore, qualifying for additional protection over and above that of the surrounding areas.
- In the case of the site for the proposed farm, no such critical or sensitive areas such as wetlands, heritage, archeological or culturally sensitive sites were uncounted. However, even though vegetation on the site will be removed, it is important to preserve the integrity of vegetation on surrounding areas.

3.3 Potential development activities

- Potential development activities that may impact on receiving environment include:
 - a. Clearing of the site unto surrounding areas
 - b. Storage of equipment and material unto surrounding areas
 - c. Driving and turning of construction vehicles outside the designated area of construction
 - d. Indiscriminate location of construction camp
 - e. Excavations for foundations for buildings
 - f. Mixing of mortar and concrete
 - g. Structure assembly and erecting
 - h. Transport of materials /supplies
 - i. Waste generation and management
- **In order to make it easier to avoid, minimize or contain, the occurrence of the above impacts, all construction activities should be restricted to within the fence of the farm.**
- **The proposed poultry houses will be Environmental control houses, which gives an advantage of that it will create an ideal environment for the living of the birds outside the poultry farm with the complete and safe removal of manure that would pollute the environment.**
- **The proposed site on portion 35 of the farm Springbokvlakte consist of already disturbed land, which is fenced. However the site is located within the midst of the settlement and is surrounded by other farms.**

3.4 Ensuring Health and safety

- Although development in whatever form it takes is expected to benefit mankind, it in the process, causes disruptions to the established livelihood system and the general day-to- day operations of affected beneficiary communities or as in this case the neighbouring communities farms or smallholdings.
- The purpose of this EMPr in this regard is to provide guidelines that would ensure that the health and safety needs of residents are taken into consideration during the construction and operation period and that, every necessary and possible step is taken to ensure that the normal social life of the community is not disrupted significantly during the period of construction and operation but rather improved in a positive manner.

SECTION 4: IMPACTS, MITIGATION MEASURES, AND MONITORING

- This section covers the core of the EMPr detailing potential environmental impacts, impacts sources and objectives are described, and environmental management mitigation measures to be implemented during construction are specified. The contractor shall adhere to these measures at all times. A checklist that may be used for internal monitoring of environmental performance is contained in Appendix 1.
- This draft EMPr may be updated based on comments received from stakeholders and after the completion of any necessary specialist's studies. This draft is however being submitted in addition to the draft BAR to the competent authority for review and comments towards final submission.

The table below details the potential impacts, management objectives and proposed management actions required for mitigation.

Table 1 EMPr Impacts and Management Actions (Template adapted from CSIR, 2016).

Impact	Management Objectives	Management /Mitigation Actions	Monitoring			
			Methodology	Indicator	Frequency	Responsibility
		•	•			
		•	•			
Noise Impacts						
Noise is likely to be generated from the use of equipment and also from construction workers on site.	Ensure that noise does not become nuisance to surrounding environment and neighbours	<ul style="list-style-type: none"> The site location is in an area where agricultural small holdings are common and house are far apart. Construction activities should be limited to day time hours (i.e. 06:00- 22:00, as defined in South African National Standards (SANS) 10103). The noise generated during construction and operational phases must adhere to the relevant SANS standards. 	Construction times to be monitored and managed (as well as included in the tender contract).	Records of complaints register and visual observations	Continuous	Contractor and EHS Manager
Traffic Impacts						
Traffic, congestion and potential for collisions during the construction phase.	Prevent unnecessary impacts on the surroundings road network by supplying parking for construction vehicles on site. Managing the flow of traffic at	<ul style="list-style-type: none"> During the construction phase, suitable parking area should be created and designated for construction trucks and vehicles. A construction supervisor should be appointed to coordinate construction traffic during the construction phase (by drawing up a traffic plan prior to construction). Road barricading should be undertaken where required and road safety signs should be adequately 	Monitor, Record and report non-compliance.	Records of complaints register and visual observations	Continuous	Contractor EHS Manager

Impact	Management Objectives	Management /Mitigation Actions	Monitoring			
			Methodology	Indicator	Frequency	Responsibility
	critical areas where necessary.	installed at strategic points within the construction and operational vehicles site must be adhered to				
Safety, Health and Environment						
Potential impact on the safety of construction workers due to construction activities (such as welding cutting, use of hot metals, working at heights, lifting of heavy items etc.).	Prevention of injuries to and fatalities of construction personnel during the construction phase.	<ul style="list-style-type: none"> • Ensure that skilled, licenced and competent Contractors, riggers and crane operators are appointed during the construction phase, along with the use of certified. Equipment and scaffolding. • Ensure that roads are not closed during construction, which may restrict access for emergency services. • Ensure that construction and operational staff members adhere to the relevant health and safety standards of the Occupational Health and Safety Act 181 of 1993 	Monitors activities and record and report non-compliance by undertaking inspections.	Records of complaints register and visual observations	Continuous	Health and Safety Officer /contractor /ECO
Pollution caused by spillage or discharge pf construction waste water into the surrounding environment	Prevention unnecessary pollution impacts on the surrounding environment	<ul style="list-style-type: none"> • No mixing of cement directly on the ground. • All spills to be reported to the ECO. • Ensure that adequate containment structures are provided for the storage of construction materials on site. 	Monitor activities and record and report non-compliance by undertaking inspections.	Incident registers	Continuous	Project Developer, ECO and contractor

Impact	Management Objectives	Management /Mitigation Actions	Monitoring			
			Methodology	Indicator	Frequency	Responsibility
		<ul style="list-style-type: none"> Ensure the adequate removal and disposal of construction waste and material. Oil containers must be stored on lined platform covered by disposable sand. 				
Heritage Resources (Archaeology and Palaeontology)						
Impact on Archaeology and Palaeontology	Prevent damage and destruction to fossil, artefacts and material of heritage significance	<ul style="list-style-type: none"> Carry out general monitoring of excavations for potential fossil heritage, artefacts and material of heritage importance All work must cease immediately, if any human remains and /or other Archaeology, Palaeontology and historical material are uncovered. Such material, if exposed, must be reported to the nearest museum, archaeologist/palaeontologist and to the PHRAG (or the South African Police Service), so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material before construction recommences. 	<ul style="list-style-type: none"> Monitors excavations and construction activities for archaeological and palaeontological material. Contact PHRAG/SAHRA and identified palaeontological / Archaeology if any heritage features are uncovered. 	Visual observation	Daily during excavation work. As required/necessary during construction.	Contractor and ECO.
Groundwater Management						
Contamination of soil and ground water through spillage of	To control concrete and cement batching activities to prevent spillages	<ul style="list-style-type: none"> Concrete mixing must be carried out on an impermeable surface (such as on boards or plastic sheeting and/or within a bunded area with an impermeable surface). 	Monitor the handling and storage of sand, stone and cement as instructed	Register of incident	Daily	Project Developer, Contractor and EHS Manager.

Impact	Management Objectives	Management /Mitigation Actions	Monitoring			
			Methodology	Indicator	Frequency	Responsibility
concrete and cement	and contamination of soil, groundwater and the marine environment.	<ul style="list-style-type: none"> Concrete mixing areas must be fitted with a containment facilities for the collection of cement-laden water. This facility must be impervious to prevent soil groundwater contamination. A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted. Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site. Sand and aggregates containing cement must be kept damp to prevent the generation of dust. Any excess sand, stone and cement must be removed from site at the completion of the construction period and disposed at a registered disposal facility. 				
Waste Water Management						
Pollution caused by spillage or discharge of construction waste water into the	Reduce construction waste water discharge into the environment and the resulting impact	<ul style="list-style-type: none"> Implement proper construction site management actions such as the installation of containment structures, good on-site housekeeping (regular sweeping of roadway and work areas, reporting system and environmental awareness training), and spillage management 	Monitor via site audits ad records non-compliance and incidents.	Register of incidents Visual observation	Monthly	EHS Manager

Impact	Management Objectives	Management /Mitigation Actions	Monitoring			
			Methodology	Indicator	Frequency	Responsibility
surrounding environment						
Storm water Management						
Pollution of the surrounding environment because of contamination of storm water. Contamination could result from chemicals, oil, fuels, sewage, solid waste, litter etc.	Reduce the contamination of storm water	<ul style="list-style-type: none"> The appointed Contractor should compile a Method Statement for Storm Water Management during the construction phase. Provide secure storage for oil, chemicals and other waste materials to prevent contamination of storm water runoff. Regular inspections of storm water infrastructure should be undertaken to ensure that it is kept clear of all debris and weeds. Erosion prevention structures should be placed to reduce water velocity within the drainage system. Only essential vegetation should be removed and no disturbance to surrounding vegetation should be permitted. Accumulation of water on the surface must be avoided always. 	<ul style="list-style-type: none"> Compile Method Statement Monitor the bunding and containment structures. Monitors via site audits and record non-compliance and incidents (i.e. by implementing walk through inspections.) 	Register of incidents Visual observation	Once off (and thereafter updated as required). Weekly Weekly	Contractor EHS Manager Contractor
Waste Management						
Pollution of the surrounding environment because of the	Reduce soil and groundwater contaminations because of	<ul style="list-style-type: none"> General waste and hazardous waste should be sorted temporarily on site in suitable (and correctly labelled) waste collection bins and skips (or similar). 	<ul style="list-style-type: none"> Inspection of the temporary waste 	Register of incidents	Daily	EHS Manager

Impact	Management Objectives	Management /Mitigation Actions	Monitoring			
			Methodology	Indicator	Frequency	Responsibility
handling, temporary storage and disposal of solid waste (general and hazardous).	incorrect storage, handling and disposal of general and hazardous waste.	<p>Waste collection bins and skips should be covered with suitable material, where appropriate.</p> <ul style="list-style-type: none"> • Should on-site storage of general waste and hazardous waste exceed 100m³ and 80m³ respectively, then the National Norms and Standards for the Storage of Waste (published on 29 November 2013 under Government Notice 926) must be adhered to. • Ensure that the construction site is kept clean always and that construction personnel are made aware of correct waste disposal methods. • No solid waste may be burned or buried on site. 	<p>storage area.</p> <ul style="list-style-type: none"> • Monitor waste generation and collection throughout the construction phase 	Visual observation		
Air Quality Management						
Increased dust level and Air Quality Impact: Emissions from construction vehicles and generations of dust because of earthworks, demolition, as well as the	Reduce dust emissions during construction activities.	<ul style="list-style-type: none"> • Ensure that cleared (excavated) areas and unpaved surfaces are sprayed with water (obtained from an approved source) to minimise dust generation. • Ensure that construction vehicles travelling on unpaved roads do not exceed a speed limit of 40km/hour. • Limit construction activities to day time hours. 	<ul style="list-style-type: none"> • Monitor dust suppression mechanisms and record non-compliances. 	<p>Register of incidents</p> <p>Visual observation</p>	During complaints/incidents	EHS Manager, ECO and Contractor

Impact	Management Objectives	Management /Mitigation Actions	Monitoring			
			Methodology	Indicator	Frequency	Responsibility
delivery and mixing of construction material.						
Socio-Economic Impacts Management						
Employment creation and skills development opportunist during the construction	Maximise local employment and local business opportunities to promote and improve the local economy.	<ul style="list-style-type: none"> Enhance the use of local labour and local skills as far as reasonably possible. The project will employ approximately 21 people from the area. Where the required skills do not occur locally, and where appropriate and applicable ensure that relevant local individuals are recruited. Ensure that goods and services are sources from the local and regional economy as far as reasonably possible. 	Maximise local employment for unskilled labour and provincial/national skilled labour.	Records of staff members Visual observation Procurement source documents	During the construction phase	Contractor and ECO.

MANAGEMENT PLAN FOR OPERATIONAL PHASE

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
Alien Vegetation Management						
Potential re-establishment of alien plants on site	Ensure the correct removal of alien invasive vegetation	<ul style="list-style-type: none"> Ensure that any alien invasive plants that become re-established on site are removed promptly. The removal of these species must 	Monitor the removal of the alien invasive vegetation	Visual observation	During the removal process	EHS Manager

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
	from the proposed projects area and prevent the establishment and spread of alien invasive plants.	<p>have carried out in line with relevant municipal and provincial procedures, guidelines and recommendations.</p> <ul style="list-style-type: none"> The removed should be immediately disposed of correctly and should not be kept on site for prolonged periods of time, as this will enhance the spread of these species. 				
Land rehabilitation	Ensure land impacted during construction phase is sufficiently rehabilitated.	<ul style="list-style-type: none"> Infilling of all excavation work. Remove all rubble from construction site and disposal of it at a registered landfill site. 	<p>Infill of excavation ensuring sub soil is filled first.</p> <p>Removal rubble to a registered</p>	Visual observation	When complaints are received.	Project Developer
Safety, Health and Environment						
Soil and Water pollution	Prevent unnecessary pollution impacts on the surrounding environment	<ul style="list-style-type: none"> Storm water should not be allowed to encounter effluent. Monitoring water quality of onsite borehole should be conducted. Ensure that excrement, carcasses, feed and other operational waste and 	<ul style="list-style-type: none"> Carry out thorough inspection of pipping, loading hoses, and bunding for leaks, using a checklist. 	<p>Incident reports</p> <p>Visual observation</p>	Daily	Project Applicant

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
		hazardous materials are appropriately and effectively contained and disposed of without detriment to the environment	<ul style="list-style-type: none"> • Proof of attendance to training sessions to be kept on file at the terminal. 			
Odours from operations and Environmental contamination of the surrounding environment from organic waste	Prevent unnecessary air pollution impacts because of the operational procedures.	<ul style="list-style-type: none"> • Ensure that excrement, carcasses, feed, and other operational waste are appropriately and effectively contained and disposed without detriment to the environment. • Adhere to the biosecurity guidelines for managing farm operations. • Ensure that the development is designated and lined with impermeable substances (concrete) in accordance with advice from international best practise norms. • Establish appropriate emergency producers for accidental contamination of the surroundings. Waste recycling should be incorporated into the facility's operations as far as possible. Designate a secured, access restricted, sign posted room 	<ul style="list-style-type: none"> • Assurance of functionality of fire extinguishers via inspections and certification by an accredited fire service company. • Comply with the permit to work system. 	Complaints report	As needed	Project Applicant

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
		<p>for the storage of potentially hazardous substances such as herbicides, pesticides dips and medication.</p> <ul style="list-style-type: none"> • Broiler houses should be cleaned regularly and manure should be incorporated into topsoil where possible. • The relevant standards for air quality must be adhered to. 				
Potential impact on the health of operating personnel resulting in potential health injuries.	To ensure that there are no adverse effects on the health of operating personnel	<ul style="list-style-type: none"> • Operational personnel must wear basic (i.e. gloves) are necessary during the operational phase. • Fire extinguishers should be easily accessible on site. 	<ul style="list-style-type: none"> • Medical investigations or surveillance to be undertaken for the operating personnel. • Keep a register of the medical records for the operating personnel. 	Visual observation	As necessary	EHS Manager and Project Developer.
Potential impact on the health of operating in potential health injuries.	To ensure that there are no adverse effects on the health of operating personnel	<ul style="list-style-type: none"> • Operational personnel must wear basic PEE (i.e. gloves) as necessary during the operational phase. • Fire extinguishers should be easily accessible on site. 	<ul style="list-style-type: none"> • Medical investigation or surveillance to be undertaken for the operating personnel. • Keep a register of the medical records for the 	<p>Compliance report</p> <p>Incident reports</p>	<p>Once-off for every operating person.</p> <p>Once every five years for</p>	Project Developer

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
			operating personnel.		the life of the installation.	
Increase in vertebrate and invertebrate pests.	Highly localized pest control that does not affect non-target populations or taxa	<ul style="list-style-type: none"> • Detect and control pest infestations before they become a problem through frequent and careful cleaning, monitoring and control. • Poultry legislation guidelines should be adhered to. • Applicant to adhere to Best Practise Guild lines and Animal Disease Act (Act 35 of 1984) 	<ul style="list-style-type: none"> • Rinse floors regularly • Provide sufficient ventilation and airflow to keep the poultry house (floors, bedding, fodder) as dry as possible. • Properly screed concrete floors to effectively seal all cracks and limit the pooling of effluent on site. • Use appropriately sloped and slated floors to facilitate drainage. • Remove all trash, and resources of feeds and water for pest from the 	Visual observation	As necessary	EHS Manager and Project Developer

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
			<p>outside perimeter of the facilities.</p> <ul style="list-style-type: none"> Keep grass and weeds mowed to 5cm or less immediately around the facilities, to prevent insect growth. 			
Water Conservation						
Increased water usage as a result of abstraction from the borehole for the operational.	Reduce water usage during operation	<ul style="list-style-type: none"> Water conservation should still be practised during the operational phase. This includes water saving techniques during irrigation practises. Other methods include: Cleaning methods utilized for cleaning vehicles, floor, the poultry houses etc. Should aim to minimise water use (e.g. sweep before wash-down). Ensure that regular audits of water systems are conducted to identify possible water leakages. 	Record water usage, conduct audit and record non-compliance and incidents	Compliance reports	Monthly	Project Developer

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
		<ul style="list-style-type: none"> Irrigation system, borehole abstraction devices and water tanks for storage should be inspected regularly so as to ensure there are no leakages. 				
Storm water Management						
Increased storm water discharge into the surrounding environment	Reduce the impacts of increased storm water discharge to the environment	<ul style="list-style-type: none"> Storm water should not come into contact liquid effluent or sate from poultry houses. Monitoring of the water quality of the boreholes should be done. 	Implement surface water quality monitoring programme, based on consultation with the landowner	Incident reports	As agreed during the operational phase.	Project ECO Project Applicant
		<ul style="list-style-type: none"> Regular inspections of storm water infrastructure should be undertaken to ensure that it is kept clear of all debris and weeds. Accumulation of water on the surface must be avoided. Waste traps in storm water system should be cleaned at regular intervals. Run off to roads must avoided. 	Undertake regular inspections of the storm water infrastructure (i.e. by implementation walk through inspections).		Weekly	Site Manager and EHS Manager
Socio-Economic Management						
Additional employment opportunities	Maximise local employment and local business opportunities	<ul style="list-style-type: none"> Enhance the use of local labour and local skills as far as reasonably possible. Where the required skills do not occur locally, and where 	Maximise local employment for unskilled labour and provincial/national skilled labour		During the operational phase	Project Developer

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
	to promote and improve local economy	<p>appropriate and applicable, ensure that relevant local individual are trained.</p> <ul style="list-style-type: none"> Ensure that goods and services are sourced from the local and regional economy as far as reasonably possible. 				
Boost in the economy of Region 2	Maximise positive impacts through ensuring produce is sold to local markets	<ul style="list-style-type: none"> Ensure that the proposed project has secured local buyers 	Seek out local markets and secure formal trade agreement	Monthly supplier reports	Monthly	Project developer
Environmental Awareness and Terminal Management						
Increased energy consumption during the operational phase	Reduce energy consumption where possible	<ul style="list-style-type: none"> Encourage the use of energy saving equipment (such low voltage light and low-pressure taps) and promote recycling. Operational personnel must be made aware of energy conservation practises as part of the environmental awareness training programme. 	<ul style="list-style-type: none"> Monitor energy usage via site investigations. Conduct training for all operational personnel 		Monthly	EHS Manager
		<ul style="list-style-type: none"> Fire fighting equipment must be made available at various appropriate locations 				

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
Safety, Health and Environment						
Pollution of the surrounding environment as a result of the handling, temporary storage and disposal of solid waste	Prevent unnecessary pollution impacts on the surrounding environment	<ul style="list-style-type: none"> General waste (i.e. building rubble, demolition waste, discarded concrete, bricks, tiles, woods, glass, plastic, metal, excavated material, packaging material, paper and domestic waste etc.) and hazardous waste (i.e. empty tins, paint and paint cleaning liquids, oils, fuel spillage and chemicals etc.) generated during the decommissioning phase should be stored temporarily on site in suitable (and correctly labelled waste collection bins and skips (or similar). Ensure that sufficient general waste disposal bins are provided for all personnel throughout the site. These bins must be emptied on a regular basis. 	Monitor activities and record and report non-compliance by undertaking inspections.	Compliance reports Visual observations	Throughout the decommissioning phase	Project applicant, ECO and Contractor
Spill contingency, Management and Handling of Chemicals/Dangerous Goods						
Potential spillage of effluent to the surrounding environment (from portable sanitation	Reduce the spillage of domestic effluent and the impact	<ul style="list-style-type: none"> Ensure that normal sewage management practises are implemented during decommissioning such as regularly emptying toilets and 	EHS Manager to monitor via site audits and record non-compliance and incidents (including	Incident reports Visual observations	Monthly	EHS Manager and ECO

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
facilities for decommissioning personnel).	thereof on the environment.	ensuring safe transport and disposal of sewage.	incidents that nearly occur)			
		<ul style="list-style-type: none"> Ensure that the toilet/sanitation facilities are maintained in a clean, orderly a sanitary condition. 	Monitor via site audits and record non-compliance and incidents	Incident reports Visual observations	Daily	EHS Manager and Contractor
Storm water Management						
Discharge of contaminated storm water into the surrounding environment. Contamination could result from chemicals, oil, fuels, sewage, solid waste, litter etc.	Reduce the contamination of storm water.	<ul style="list-style-type: none"> The appointed Contractor should compile a Method Statement for a Storm Water Management during the decommission phase. 	Compile Method Statement	Incident reports Visual observations	Once off (and thereafter updated as required)	Contractor
		Provide secure storage for oil chemical and other waste materials in order to prevent contamination of storm water runoff.	Monitor the bunding and containment structures	Incident reports Visual observations	Weekly	EHS Manger
Waste Management						
Pollution of the surrounding environment as a result of the	Reduce soil and ground water contamination	<ul style="list-style-type: none"> Carry out management actions for the decommissioning phase 	Carry out monitoring for decommissioning phase	Compliance reports	Continuously thought-out decommissioning phase	Project Developer and EHS Manager

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility
handling, temporary storage and disposal of solid waste	as a result of incorrect storage. Handling and disposal of general and hazardous waste			Visual observations		
Fauna and Flora						
Introduction and proliferation of alien species	Minimize introduction and effective control of alien species	<ul style="list-style-type: none"> By law, remove and dispose of Category 1b alien species on site. All category 2 species that remain on site must require a permit. Monitor invasive regularly during decommission and after 	<ul style="list-style-type: none"> Mechanical removal of these species is recommended. However, the removal must be carefully performed so as to not excessively disturb the soil layer. 	Incident reports Visual observations	Continuously thought-out decommissioning phase	Project Developer and EHS Manager
Loss of economic activity in the area	Minimize loss of economic activity in the area.	<ul style="list-style-type: none"> Closure of the development would result in job loss and no input into the local economy. Local economies should be supported and this establishment should be kept operational 		Monthly staff reports Visual observations	Continuously thought-out decommissioning phase	Project Applicant

Impact	Management Objectives	Management Actions	Monitoring			
			Methodology	indicator	Frequency	Responsibility

Waste management

Waste that will be generated at construction stage is likely to consist mainly of rubble, material packages (cardboards and wraps) and also litter that might be generated by the construction staff. This waste will be collected and placed inside waste management bins that will be provided.

There are different waste products that will be produced during the operation of the farm. This will be in the form of chicken droppings, feathers and carcasses. The domestic waste generated will be cleaned and collected by the local staff working on the farm. The waste produced will be transported to a permitted landfill site that is near to the farm. In most cases the chicken dropping will be collected and stockpiled into manure and used for vegetable production since the farm also produces vegetables, e.g Cabbage. Where the manure produced is more than utilized by the vegetation unit, the remainder will be packed in sacks for nearby farmers to collect and use for manure. Other farmers that are specialized in vegetable farming will collect/purchase the chicken droppings for compost.

Collection of uncontaminated mortalities from each facility will be done on daily bases by the farmer and be placed in special lockable containers and recycled by selling to other farmer's/ buyers who collect for other feeds production (recycling) usually by crocodile and lion farmers. Where there are left overs, these will be disposed of at a licensed waste disposal site.

The removal of manure from the coops will be of automated, since the proposed poultry house will be environmentally controlled. Manure management is much easier in an automated system. Cage and flooring designs allow waste to drop directly into a manure disposal pit, keeping both the eggs and hens clean and safe from parasites.

Construction stage

Disposal:

Waste	On-Site Storage	Frequency	Final Disposal
Rubble	Will be collected and placed inside waste management bins that will be provided, and will be monitored by an Environmental Control Officer.	Daily	Will be disposed of at the nearest licensed disposal site.
Material packages (cardboards, wraps)	Will be collected and placed inside waste bins that will be provided, and will be monitored by an Environmental Control Officer	Daily	Will be disposed of at the nearest licensed disposal site.
Chemical/Hazardous/oil spills	Contaminated soil will be excavated and placed inside waste bins that will be	Daily	Will be disposed of at the nearest licensed hazardous landfill site.

	provided, and will be monitored by ECO.		
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Operational stage

Disposal:

Waste	On-Site Storage	Frequency	Final Disposal
Chicken litter	Will be stockpiled into manure and contained in sacks, and monitored by farm employees	Monthly	Will be used as fertilizer for the production of vegetables at the farm, and left overs will be sold to other local crop farmers
Dead birds	Will be kept in a lockable containers at the farm for not more than 5 hours and will be monitored by farm employees	Every 4 hours of working hours	<ul style="list-style-type: none"> • To be disposed of at the nearest licensed disposal site. • Will be sold to local crocodile and lions farms.
Waste water	Will be contained in bins and buckets at the farm and monitored by farm employees	Once a year	To be disposed of at a local sewer.
General waste	Will be contained in waste bins at the farm and monitored by farm employees	Daily	To be disposed of at a nearest local landfill site

5. CONCLUSIONS AND RECOMMENDATIONS

The significance of most of the issue may be effectively mitigated should this environmental management plan be carefully followed. The concluding recommendations are:

- Contractors need to follow the environmental management plan;
- The development need to benefit the community in a tangible manner, and therefore, attempts need to be made to integrate community needs and aspirations into the implementation processes of the development;
- The contractor need to show concerns for health in general and the health safety of the employees in particular;
- Where appropriate, the contractor must use local labour as much as possible;
- In terms of the National Environmental Management Act 107 of 1989 everybody is required to take reasonable measures to ensure that they do not pollute the environment. Reasonable measures include informing and educating employees about the environmental risks of their work and training them to operate in an environmentally acceptable manner;
- Furthermore in terms of the Nation Environmental Management Act 107 of 1998 the cost of repair for any environmental damage shall be borne by the person responsible for the damage.

Annex A: Glossary

- **1.3.1 General**
- The contractor shall actively engage himself and workers (if necessary) on this project to knowing and understanding of relevant terms, descriptions, and abbreviations in this EMP as indicated below:
- **Contractor (CT)**
- For the purpose of this EMP: “CT” refers to the main contractor(s) appointed for the construction activities of the project or portion of the project. The main contractor(s) are required to adhere to the EMP and are responsible for ensuring that all subcontractors, suppliers and staff appointed by them, also adhere to the EMP.
- **All Staff**
- This is the entire workforce. Workers employed by the contractor or persons involved with activities related to the project, or persons present or visiting the construction area, including permanent, contract, or casual labour and informal traders.

- **Environmental Control Officer (ECO)**
- An individual or representative of an organization appointed to act on matters concerning the day-to-day implementation of the EMP, and for liaison with the DAEA&RD, and the public affected by construction.
- **LEDET**
- Limpopo Department of Economic Development, Environment and Tourism– who is the competent authority in the case of this application.
- **Local Community**
- People residing in the region and near the construction activities, including the owners and/or managers of land affected by construction, small holdings, workers on the land, and the people in nearby towns and villages.
- **Public**
- Any individual or group of individuals concerned with or affected by the project and its consequences, -including the local community, local, regional, and national authorities, investors, workforce, customers, consumers, environmental interest groups, and the general public.
- **Relevant Authority**
- This refers to the environmental authority on national, provincial or local level with the responsibility for granting approval to a proposal or allocating resources.
- **1.3.2 About the Construction Activities**
- **Alternatives**
- A possible course of action, in place of another, that would meet the same purpose and need (of proposal). Alternative can refer to any of the following but are not limited to hereto: alternative sites for development, alternative site layouts, alternative design, alternative process and materials.
- **Construction Areas/Site:**
- This is land area on which the project is to be located. It includes the sites of individual stands, construction campsites, access roads and tracks, as well as any other area affected or disturbed by construction activities. The EMP (particularly) the specifications for rehabilitation) is relevant for all areas disturbed during construction.
- **Development**
- This is the act of altering or modifying resources in order to obtain potential benefits.
- **Access Roads and Tracks**

- Access Roads and Tracks refers existing and newly established roads and tracks, and areas cleared or driven over to provide access to/from the construction areas, and for the transportation of the construction workforce, equipment and materials.
- **1.3.3 About the Environment**
- ***Receiving / Affected environment***
- Those parts of the socio-economic and biophysical environment impacted on by the development.
- ***Assessment***
- The process of collecting, organizing, analyzing, interpreting, and communicating data that is relevant to some decision.
- ***Environment***
- The surrounding within which humans exist that are made up of: - the land, water and atmosphere, fauna and flora, including any part, combination or interrelationships among these; and all the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human wellbeing.
- ***Environmental Impact***
- This is the degree of change in an environment resulting from effect of an activity whether desirable or undesirable. Impacts may be direct consequences of an organization's activities or may be indirectly caused by them.
- ***Environmental Impact Report***
- A report describing the process of examining the environmental effects of a development proposal, the expected impacts and the proposed mitigation measures.
- ***Evaluation***
- The process of weighing information, the act of making value judgments or ascribing values to data in order to reach a decision.
- ***Hazards***
- Hazardous substances in this regard are anything that constitutes a source of, or exposure to danger. Some examples of hazardous sources or materials are:
 - Diesel, petroleum, oil, bituminous products;
 - Cement;
 - Solvent based paints;
 - Lubricants;
 - Explosives;

- Drilling fluids;
- Pesticides, herbicides.
- **Hydrological Features**
- Hydrological features includes, but not limited to:
 - Rivers and Wetlands;
 - Open water;
 - Vegetated drainage channels;
 - Subterranean water;
- **Life Support Systems**
- Life support systems include, but are not limited to:
 - An ecological system in which its outputs are vital for sustaining specialized habitats;
 - An ecological system in which its outputs are vital for sustaining human life (e.g. water purification).
- **Mitigation**
- Measures designed to avoid, reduce or remedy adverse impacts.
- **Monitoring**
- This is the repetitive and continued observation, measurement and evaluation of environmental data to follow changes over a period of time to assess the efficiency of control measures.
- **Negative Impact**
- A change that reduces the quality of the environment (for example, by reducing species diversity and the reproductive capacity of the ecosystem, by damaging health, property or by causing nuisance.
- **Rehabilitation**
- Measures implemented to restore a damaged Environment to an acceptable level.
- **Significant impact**
- This is an impact that, by its magnitude, duration or intensity alters an important aspect of the environment.

ANNEX 2: CHECKLIST FOR MONITORING ENVIRONMENTAL PERFORMANCE

Appendix G: Other Information



SOUTH AFRICAN POULTRY ASSOCIATION

SUID AFRIKAANSE PLUIMVEEVERENIGING

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A

**quick guide to the application of Biosecurity on a Poultry
farm**



Biosecurity Guidelines

What is Bio Security?

Biosecurity has multiple meanings and is defined differently according to various disciplines. The original definition of biosecurity started out as a set of preventive measures designed to reduce the risk of transmission of infectious diseases in crops and livestock, quarantined pests, invasive alien species, and living modified organisms (Koblentz, 2010).

Biosecurity and farm management will help decrease the chance of disease on the farm. The first step to disease prevention is protection from exposure to disease agents. Strictly following the biosecurity guidelines below will assist to decrease the chance of disease.

Poultry diseases are controlled by biosecurity, veterinary health care, complete vaccination programs, high-quality diet, enclosed housing, and high standard of farm and bird management.

Disease can occur if a flock is challenged with a new strain of a virus, bacteria, and parasite or if there is a breach in biosecurity. Biosecurity must be practiced at all times. All growers and workers should have documented biosecurity training. A biosecurity checklist should be posted or kept on each farm. Biosecurity

measures should be audited frequently for compliance. The main concepts of commercial poultry production biosecurity are:

- Cleaning and Disinfecting
- Isolation
- Traffic Control
- Pest Control
- Dead Bird Disposal

Cleaning and Disinfecting

- Kills germs that cause diseases.
- Visitors, growers, and employees must wash hands before entering and leaving the farm. Acceptable methods include waterless gels, disinfecting hand wipes, or soap and water.
- Clean work clothes should be worn to prevent the spread of disease.
- Proper clothing requirements for visits to a commercial poultry operation are disposable coveralls, hairnet, gloves, and plastic boots. The disposable clothing should be disposed of on the farm before the individual leaves the premises.
- Farm workers should shower and wear clean clothes to work. Workers may be asked to change into work clothes on the farm.
- Growers and their workers, living on the farm premises, should have designated clothing to be worn while on the poultry farm. If a person leaves the premises they should change clothes, including footwear, before leaving.
- If a grower has employees who live off the farm premises, these employees should shower, prior to entering the farm, and wear clothing designated, including footwear, for farm use only. Special care should be taken to ensure contamination (disease) is not brought to the farm from outside the farm premises.
- Hands should be disinfected before leaving the dressing area and before entering each house.
- Boots should be dipped in the footbath between each house.
- All equipment used inside the poultry houses should be cleaned and disinfected prior to entering and after exiting the houses. This includes equipment used for clean out and new flock set up.
- Equipment should not be shared between farms, unless thoroughly cleaned and disinfected

Isolation

- Keep birds away from germs.

- Keep birds away from objects or persons who can carry germs.
- Park away from poultry houses.
- Fence in the perimeter of the poultry operation and keep fence in good repair or a natural perimeter should be established around the farm. If anything from outside the area is entering the farm, it should be considered a source for contamination.
- Do not use open bodies of water such as a pond or lake as a source for poultry drinking water or for misting to cool the birds. Ponds and lakes can be contaminated with viruses such as Avian Influenza (AI) from migrating birds.

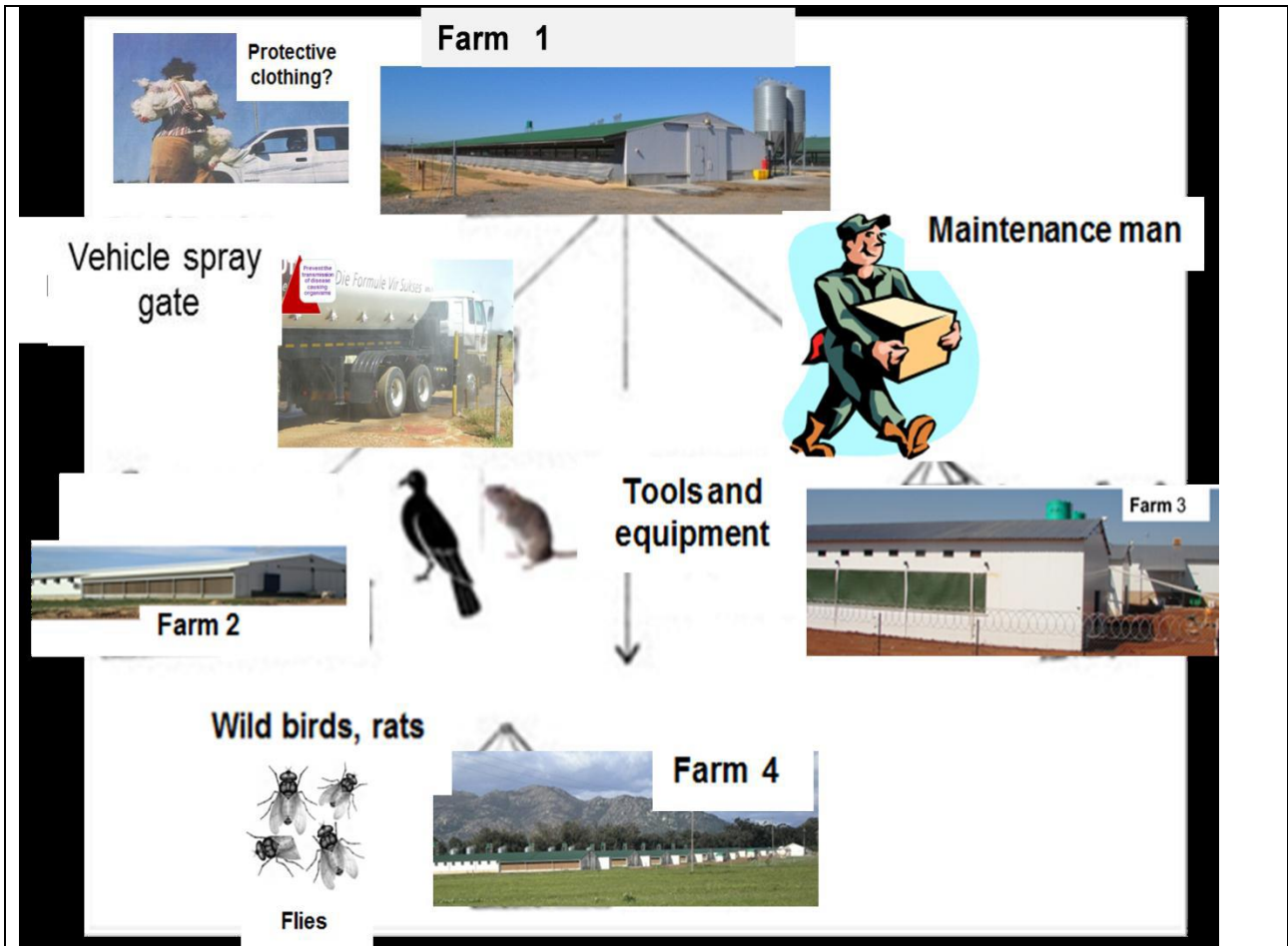
Traffic Control

- Keep germs away from birds.
- Do not allow anyone to enter poultry houses, unless biosecurity rules are followed.
- All visitors must sign a visitor log book and indicate recent bird exposure. Visitors should have a purpose for being on the premises that relates to the proper care and well-being of the flock. Anyone who needs to visit the grower or his agents who does not need to physically be on the farm should contact the grower prior to going to the farm and arrange to meet away from the farm.
- Post a biosecurity sign stating “no entrance” on all entrances to poultry housing areas. If appropriate, the sign should also be in Spanish.
- Vehicles, upon entering and leaving the farm, should have the tires disinfected.
- Footbath with disinfectant should be placed at the entrance of each house and should be used before entering and after leaving the poultry house. The footbath should be a minimum of 1” deep with the proper dilution of disinfectant. If the baths are located outside the house, they should be covered to keep rain and foreign matter out.
- Hands should be disinfected before entering and after leaving the poultry house.
- Doors to each house may be kept locked to decrease unauthorized entry.
- Visit sick flock last.
- Visit farms or houses in order of youngest to oldest flocks.

Pest Control

- Maintain satisfactory rodent and fly control programs.
- Keep doors shut and locked.
- Always look for evidence of rodents.
- Block holes and trap rodents or wild birds.
- Do not allow wild birds to nest on or around the poultry houses.
- Keep areas around houses clean to prevent rodent infestation.
- Remove all nonessential items from within and around the poultry houses.
- The area within 100 feet of the houses should be kept mowed.
- The ditches should be maintained to allow for water to leave the area and not puddle. These items will help limit the exposure to disease from mosquitoes and other pests.
- Keep animals and wild birds out of and away from the poultry houses. It is important to minimize animal activity around the poultry houses. This includes pets, wild animals, and other farm animals.
- Feed spills should be cleaned up promptly to minimize a food source for wild animals which can be carriers of disease

How disease can be spread on a poultry farm



Dead Bird Disposal

- Keep contamination away from the flock.
- Proper disposal of dead birds is essential for a good biosecurity program. If dead birds are to be left outside the house at any time, they should be placed in a covered container.
- Collect mortality last and dispose of properly to prevent spread of disease to other houses and to prevent pest activity.
- Wash hands after handling dead birds.

Spent litter

- Wear protective clothing and dust mask
- Remove litter and dispose of it well away from the house.
- During full cleanouts, end of batch litter must not be stockpiled on the farm site nor should the next batch's litter be placed in the houses before total disinfection has taken place.

General observations

- Growers and poultry workers should not have birds of any type on their farm premises or where they reside.

- It is very important for all persons to restrict their contact with birds and people who are associated with birds. If contact does occur then wash clothes as soon as possible and clean vehicle inside and out.
- Growers and poultry workers should not visit other poultry operations.
- Collect and properly dispose of any loose birds outside the house.
- Workers should report sick birds, production decreases, or odd shaped eggs immediately to their supervisor.
- Do clean jobs, such as gathering eggs, first thing in the working day.
- Do dirty jobs, such as collecting mortality, last thing of the working day.
- Migratory birds may use this area as part of their flyway. If migratory birds are in the area, special care should be taken to avoid infecting the flock with diseases that may be carried by these birds such as AI.
- Anytime there is a change in labour, new employees should be trained on biosecurity.
- Poultry should not be allowed to leave or enter the farm, except under the control of the company that owns the birds.
- Poultry should not be sold or given away, unless the grower is authorized to do so.

Know the Warning Signs for Infectious Diseases

- Diseases can be difficult to diagnose, but you can recognize potential problems and contact a veterinarian to diagnose the disease.
- Some poultry diseases are AI, Newcastle disease, infectious bronchitis, infectious laryngotracheitis, infectious bursal disease, infectious coryza, and mycoplasmosis.
- High mortality and sudden death in a flock should be reported immediately.
- Signs of disease to look for are:
 - ❖ Unusual drop in egg production
 - ❖ Soft or misshapen eggs
 - ❖ Weight loss
 - ❖ Sneezing, coughing, gasping for air, nasal discharge
 - ❖ Greenish watery diarrhoea
 - ❖ Listlessness, muscular tremors, drooping wings
 - ❖ Twisting of head or neck
 - ❖ Complete paralysis
 - ❖ Swelling around eyes and neck
 - ❖ Lameness and tumours
 - ❖ Sudden death or unusual number of birds dying

Report Sick Birds

- To report sick birds, contact your local veterinarian or contact the State Veterinarian's office.
- It is important to diagnose and stop a disease problem before it spreads.

Useful contact numbers

South African Poultry association

011 795 9929

Poultry Disease Management Agency

012 529 8281

DAFF state Veterinarian's Office

STATE VETERINARY SERVICES (National Department of Agriculture and the provincial departments of agriculture)

For a complete list and further information, contact: Directorate Veterinary Services (National Department of Agriculture),

Private Bag X138, Pretoria 0001. Tel. (012) 319 7488. Fax: 012-3296892.

