THE PROPOSED EXPANSION OF THE RAINBOW FARMS (PTY) LTD FARMING OPERATIONS ON FARM TWEEFONTEIN AND FARM SPITSKOP, BRONKHORSTSPRUIT (GAUTENG PROVINCE)

DRAFT BASIC ASSESSMENT REPORT

GDARD REF NO: Gaut: 002/13-14/E0342

SEPTEMBER 2014

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Contents

Gauteng Department of Agriculture and Rural Development (GDARD)

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

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

Kindly note that:

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

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

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

4. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

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

6. An incomplete report shall be rejected.

7. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.

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

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

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

DEPARTMENTAL DETAILS

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

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

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

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

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

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

if no, state reasons for not attaching the list.

This is the draft document.
This Draft will be submitted to State Departments upon completion and the list will be attached in the final BAR.

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

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

Expansion of the Rainbow Farms (Pty) Ltd farming operations
on Farm Tweefontein and Farm Spitskop, Bronkhorstspruit. Gauteng.

Select the appropriate box

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

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

YES	**NO X**

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

N/A

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

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Constitution of South Africa Act No108 of 1996	The National Constitutional Court	1996
National Environmental Management Act, 1998 (Act No. 107 of 1998)	Department of Environmental Affairs	1998
National Environmental Management Act EIA Regulations GN R544, 18 June 2010, Activity 13 and 23 of Listing Notice 1 of 2010	Gauteng Department of Agriculture and Rural Development	2010
National Environmental Management : Biodiversity Act 10 of	Department of	2004

2004	Environmental Affairs	
National Water Act, 1998 (Act No. 36 of 1998):	Department of Water Affairs (DWA)	1998
National Environmental Management: Waste Act (Act No. 59 of 2008)	Department of Environmental Affairs	2009
National Heritage Resources Act No25 of 1999	South Africa Heritage Resource Agency	1999
Environment Conservation Act (Act 73 of 1989)	Department of Environmental Affairs	1998

3. ALTERNATIVES

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

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

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

No.	Alternative type	Description, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")
1	**Proposal** (Preferred)	The project entails expansion of chicken farming activities by adding new chicken coops (broiler-breeders) to the 8 existing chicken coops (Roofontein Rearing no's: RKGA05, RKGA06, RRKA4B, RKGA 8A, RKGA 8B, RKGA 7B). The existing coops will be expanded by adding more chicken houses directly adjacent to them. In addition to this, 2 new sets of chicken coops are proposed to the east of the existing eight coops (at RCF number RKGB). The expansion is shown on the maps below:

RCF Number	Coops to be added	RCF Number	Coops to be added
RKGA 05	1	RKGA 8B	6
RKGA 4A	3	RKGA 8A	6
RKGA 4B	3	RKGA 7B	6
RKGA 06	1	RKGA 7A	6

The selection of this site is as a result of the applicant owning the site, which is suitably located in terms of the market. Alternative locations are currently not available, and would thus involve lease or purchase of land / other sites.

Sizes of the relevant farms are:
Portion 4 of Farm Tweefontein 491 = 2141226.95 m^2 (214.122695ha)
Portion 16 of Farm Tweefontein 491= 1908353.66 m^2 (190.835366ha)
Portion 5 Spitskop 502 = 1322927.63 m^2 (132.292763ha)
Portion 6 of Farm Spitskop 502 = 2163259.23 m^2 (216.325923ha)

The proposed expansion of the facility will be located on this existing breeder farm and the coops will have both cocks and hens. The eggs will be collected every day and taken to a hatchery located on other farms (e.g. Carolina). The prime focus of such a farm is to produce day old chickens to supply the broiler industry and farmers. Eggs are not hatched on these farms, but live chicks are brought from other farms and then raised in controlled conditions to the age where breeding can commence. The average life span of breeding chickens is 64 weeks. Slaughtering will not form part of the operations for this site.

2	**Alternative**	The only alternative to the preferred option would be variations in layout, i.e. different grouping of the coops or to erect fewer chicken houses on the same farm property. The grouping that has been proposed for the preferred option and number of coops have been found to be the most practical and economical option, and also avoids the Conservation area to the north of the development, and will be outside of the wetland boundaries. Wetland studies that have been done before the selection largely dictated the placing of the coops.

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

N/A

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

4. PHYSICAL SIZE OF THE ACTIVITY

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

Pen set number	RCF numbers	Units (pens)	Current size (90m x 11.9m)	# of pens added	Area expanded	TOTAL size (6 pens per set)
pen set 1	RKGA 05	4	**4284m²**	**1**	**5880m²**	**8820m²**
pen set 2	RKGA 4A	2	**2142m²**	**3**	**5880m²**	**8820m²**
pen set 3	RKGA 4B	2	**2142m³**	**3**	**5880m²**	**8820m²**
pen set 4	RKGA 06	4	**4284m²**	**1**	**5880m²**	**8820m²**
pen set 5	RKGA 8B	2	**2142m²**	**6**	**5880m²**	**8820m²**
pen set 6	RKGA 8A	2	**2142m²**	**6**	**5880m²**	**8820m²**
pen set 7	RKGA 7B	2	**2142m²**	**6**	**5880m²**	**8820m²**
pen set 8	RKGA 7A	2	**2142m²**	**6**	**5880m²**	**8820m²**
					47040m²	**70560m²**

New pen sets	RCF numbers	Units (pens)	Total Size of Chicken Pens	
pen A	RKGB	8	**8568m²**	**8820m²**
pen B	RKGB	8	**8568m²**	**8820m²**
			TOTAL (A+B)	**17136m²**
			Total Expansion	**34272m²** 3,427 hectares

	Size of the activity:
Proposed activity **Preferred**	**34272m²**
Alternative 1 (if any) Expanded by half the number of coops (16)	**17136m²**
Alternative 2 (if any)	**N/A**

Ha/ m²

or, for linear activities:

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

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

	Size of the site/servitude:
Proposed activity	Portion 4 of Farm Tweefontein 491 = 2141226.95 m² Portion 16 of Farm Tweefontein 491= 1908353.66 m²
	Portion 5 Spitskop 502 = 1322927.63m² Portion 6 of Farm Spitskop 502 = 2163259.23m²

	(216.325923ha)
Alternatives: Alternative 1 (if any)	Portion 4 of Farm Tweefontein 491 = 2141226.95 m² (214.122695ha) Portion 16 of Farm Tweefontein 491= 1908353.66 m² (190.835366ha)
	Portion 5 Spitskop 502 = 1322927.63m² 132.292763ha) Portion 6 of Farm Spitskop 502 = 2163259.23m² (216.325923ha)

5. SITE ACCESS

Proposal

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

YES **X**	NO
N/A	

Note: The sites are located on Portion 4 and 16 of Farm Tweefontein 491 Portion 5 and 6 of Farm Spitskop 502, to which access roads already exist. The nearest regional road is the R907 located approximately 1.8 km west of the study site, and the R25 road located approximately 4.8 km west of the study site. The closest national road is the N4 which is located approximately 6.4 km south of the study site.

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

Describe the type of access road planned:

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

Alternative 1

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

YES	NO
N/A	

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

Describe the type of access road planned:

The same site as above, only different placing of coops.

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

Alternative 2

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

YES	NO
	N/A

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

Describe the type of access road planned:

N/A

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

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

Section A 6-8 has been duplicated **N/A** Number of times

(only complete when applicable)

6. SITE OR ROUTE PLAN

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

- the scale of the plan, which must be at least a scale of 1:2000 (scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;

- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);

- for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

See Appendix A

7. SITE PHOTOGRAPHS

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

See attached **Appendix B**

8. FACILITY ILLUSTRATION

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

Each chicken house of 88mx15m can accommodate 40000 chickens (ratio of male to female 1:3).
Houses are erected 60m apart and each has separate disinfectant rooms and showers. Existing fencing will be moved to enclose the new chicken houses and the existing ones as a group.

See attached **Appendix C**

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

Further:

Instructions for completion of Section B for linear activities

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

Section B has been duplicated for sections of the route **N/A** times

Instructions for completion of Section B for location/route alternatives

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

Section B has been duplicated for location/route alternatives **N/A** (same location) times
(complete only when appropriate)

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

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

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

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

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

1. PROPERTY DESCRIPTION

Property description:

(Farm name, portion etc.)

The sites are located on Portion 4 and 16 of the Farm Tweefontein 491 and Portion 5 and 6 of the Farm Spitskop 502. The study site is situated approximately 8 km north-east of the town of Bronkhorstspruit in the Gauteng Province. The approximate central coordinates for the main site are 25°46'18.44"S and 28°50'3.40"E

2. ACTIVITY POSITION

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

Alternative:	**Latitude (S):**	**Longitude (E):**
(Preferred)	**-25.774189°**	**28.830766°**

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
• Starting point of the activity	N/A	N/A

• Middle point of the activity	N/A	N/A
• End point of the activity	N/A	N/A

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

Addendum of route alternatives attached **N/A**

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

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

4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	**Plain**	Undulating plain/low hills	River front

5. GROUNDWATER, SOIL & GEOLOGICAL STABILITY OF THE SITE

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

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

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

Land Use and Land Cover The study site is currently disturbed by previous farming activities. Most of the land cover consists of bare soil and natural grass.
Geology and soils: The geology underlying the study site is of the Wilge River form and the Waterberg Group. All the coops except coop number 9 is located on S2 soil forms with coop number 9 being located on S16 soil type. S2 soil forms are characteristic of this area. S2 soils may have restricted depth and excessive drainage. S2 soils have low natural fertility and a high erosion potential.
Soil The soil of the un-channeled valley bottom was mainly coarse sandy soil on the edges of the temporary zone, with the permanent zone of the wetland being characterised by an increase in dark clay and loam soils. The top layer (1-10 cm) of the un-channeled valley bottom was mostly dark grey with a lighter shade of grey deeper in the profile (10-50 cm). Mottling, root oxidation and iron oxidation on the surface of the water was found throughout the un-channeled valley bottom (see Figure 8 of the specialist report). The seepage wetland was characterised by dark clay soils with scattered areas with mottling, possibly due to disturbances in the soil profile as well as some areas with sandy red topsoil (1-10 cm) with a grey layer underneath.
Hydrology: Surface water spatial layers including the Gauteng Department of Agriculture and Rural Development (GDARD) indicate a large river known as the Wilge River to the east of the study site as well as smaller tributaries to the north and south of the study site including a tributary dissecting the study site from north to south. Wetlands are also indicated along these tributaries ranging from small to large.

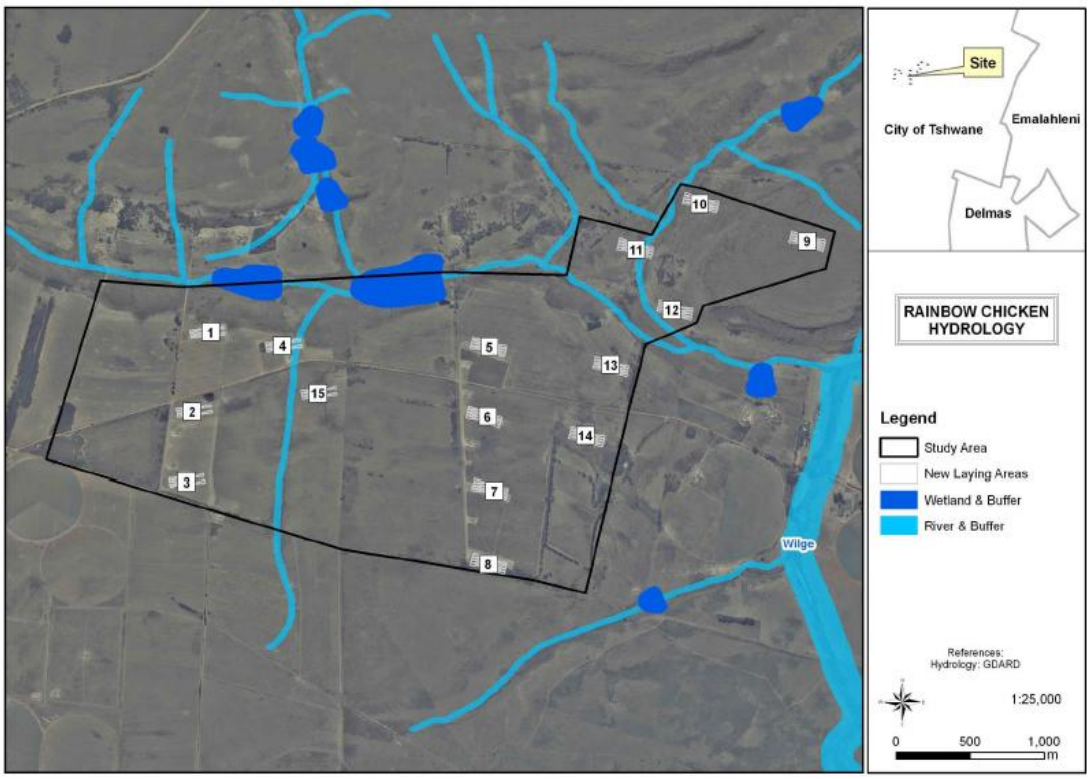
Wetland Classification and Delineation
Two (2) wetlands were recorded on site. The wetlands are classified as an unchannelled valley bottom wetland and a seepage wetland. The unchanneled valley bottom wetland flows primarily from west to east although some legs of the valley bottom flow from north to south and ultimately drain into the Wilge River. The seepage wetland flows from north-west to south-east where it links up with another unchanneled valley bottom and ultimately flows into the Wilge River (Figure 10 of the specialist report **"** Wetland Delineation and Functional Assessment**",** May 2014). The Wilge River is located outside of 500 m of the study site, however any significant impacts on the wetlands found on the study site are likely to have some impact on the river.

Unchanneled Valley Bottom
The unchanneled valley bottom wetland on site has been impacted by damming up of the wetland, road crossings as well as exotic woody vegetation. The wetland flows from west to east where it links up with the Wilge River. Just before it reaches the Wilge River it passes a mountainous area where another branch flowing from north to south links up to the valley bottom wetland. The valley bottom wetland is well vegetated and erosion is low throughout the study area. The expansion of coop number 4 as well as the proposed new coops 10, 11, 12 and 1 are located directly within the unchannelled valley bottom. The expansion of existing coop number 1, 2, 3, and 4 as well as the proposed new coops number 13 and 15 are located within 500 m of the unchanneled valley bottom (Figure 11 of the specialist report **"** Wetland Delineation and Functional Assessment**",** May 2014). ***Note that more coop placement options were investigated in the Wetland study, thus numbers 1 to 14 are relevant to the map shown**.

Seepage Wetland
The seepage wetland is located in the eastern section of the study site and flows south-east where it links up with an unchanneled valley bottom that ultimately drains into the Wilge River. The seepage wetland has been impacted by over-grazing, roads, fencing, exotic woody vegetation as well as damming up of the wetland (Figure 12 of the report **"** Wetland Delineation and Functional Assessment**",** May 2014). The proposed new chicken coop number 14 is located within the seepage wetland. The existing chicken coops number 5, 6 and 7 as well as the proposed new chicken coop number 13 is located within 500 m of the seepage wetland. ***Note that more coop placement options were investigated in the Wetland study, thus numbers 1 to 14 are relevant to the map shown**

In summary, the hydrology of the seepage wetland has been greatly affected by the damming up of a large section of the wetland as well as the adjacent farming activities. The hydrology of the unchanneled valley bottom has also been disturbed by damming up of the wetland in a few places. The vegetation of the seepage wetland has a high number of exotic *Eucalyptus sp.* trees while the valley bottom wetland has less exotic woody vegetation in relation to its size. Finally the geomorphology of the seepage wetland has been impacted by adjacent farming activities, road and building construction and by over-grazing. The geomorphology of the unchanneled valley bottom wetland has also been impacted by roads and infrastructure as well as grazing animals. The PES scores for the unchanneled valley bottom wetland is a C - Moderately modified. A moderate change in ecosystem processes and loss of natural habitats has taken place but the natural habitat remains predominantly intact (Macfarlane et al, 2007) while the seepage wetland scored a D - Largely modified. A large change in ecosystem processes and loss of natural habitat and biota has occurred (Macfarlane et al, 2007).

The Hydrology of the area is shown on the image below:



b) are any caves located on the site(s)

YES	NO√

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

c) are any caves located within a 300m radius of the site(s)

YES	NO √

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

d) are any sinkholes located within a 300m radius of the site(s)

YES	NO √

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?

YES√	NO

The area is used for chicken farming and a change in land use will not occur.

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

7. GROUNDCOVER

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

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

Natural veld - good condition % = 0	Natural veld with scattered aliens % = 60	Natural veld with heavy alien infestation % =	Veld dominated by alien species % =0	Landscaped (vegetation) % =0
Sport field % =0	Cultivated land % =0	Paved surface (hard landscaping) % =	Building or other structure % = 2%	Bare soil % = 30

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

Are there any rare or endangered flora or fauna species (including red list species) present on the site

YES	NO **X**

If YES, specify and explain:

Regional Vegetation:
The vegetation type occurring in the study area is Rand Highveld Grassland and Loskop Mountain Bushveld (Mucina & Rutherford, 2006). **Coop numbers 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13 and 14 occur on the vegetation type Rand Highveld Grassland.** Rand Highveld Grassland comprises species rich, wiry, sour grassland alternating with low, sour shrubland on rocky outcrops and steeper slopes. ***Note that more coop placement options were investigated in the Wetland study, thus numbers 1 to 14 are relevant to the map shown**

This vegetation unit is poorly conserved with much of its area transformed by cultivation, plantations, urbanisation or dam-building and mining. Where disturbances occurred, the invasive exotic tree *Acacia mearnsii* (Black Wattle) can become dominant and displace the natural vegetation. Due to the extensive usage of the areas once covered by Rand Highveld Grassland vegetation types, the remaining portions are of high conservation value and sensitivity and are thus classified as endangered vegetation types (Mucina & Rutherford, 2006).

Only coop number 9 and a very small section of coops 10 and 12 occur on the vegetation type Loskop Mountain Bushveld. Loskop Mountain Bushveld comprises of low mountains and ridges with open tree savannah on lower-laying areas dominated by Burkea Africana while the herbaceous layer is dominated by grasses. The area is considered least threatened with 15% conserved (Mucina & Rutherford, 2006). *Note that more coop placement options were investigated in the Wetland study, thus numbers 1 to 14 are relevant to the map shown

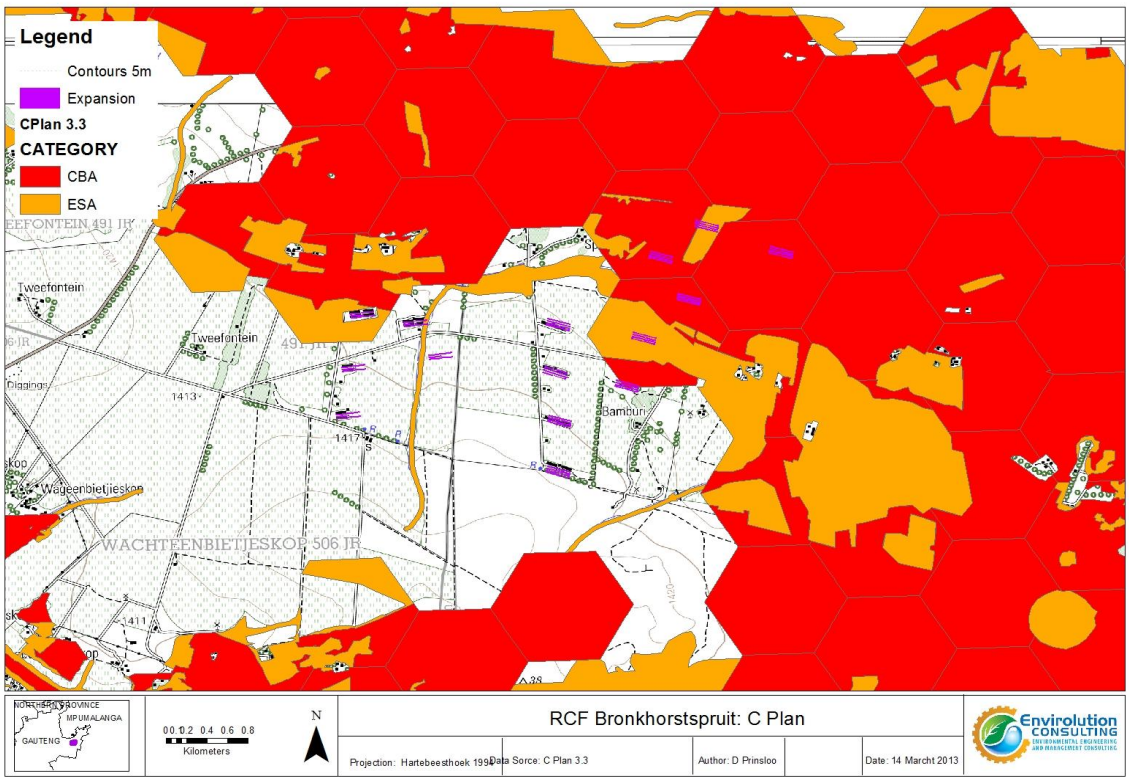
Wetland vegetation

The permanent area of the unchannelled valley bottom was dominated by plants such as *Phragmites australis, Typha capensis, Juncus rigidus* as well as *Schoenoplectus corymbosus* which were found in the pools and open water areas. The areas farther away from the permanent area (seasonal and temporary areas) were dominated by grasses such as *Imperata cylindrica, Andropogon eucoms* and *Paspalum urvillei. Eragrostis gummiflua* was found on the edges of the valley bottom in some places. Exotic vegetation was also found in the unchannelled valley bottom with high numbers of *Populus X canescens* and *Acacia mearnsii* as well as a couple of *Salix babylonica* trees scattered through the valley bottom wetland.

The seepage wetland was dominated by *Imperata cylindrica* and *Andropogon eucoms* grasses on the edges of the wetland area. The seepage wetland has been dammed up. The dammed up area is located between large *Eucalyptus sp.* Trees (Figure 9 of the specialist report). Where the wetland has been dammed up a high number of rushes such as *Juncus rigidus* are located (Table 5 of the specialist report "Wetland Delineation and Functional Assessment", May 2014). The water in the dammed up area had a thick layer of algae.

Gauteng Biodiversity Conservation Plan (C-Plan)

The Gauteng Biodiversity Conservation Plan reflects that a number of the coops are located on either important or ecological support areas according to the c-plan. **Coop numbers 1, 4, 10 and 13 are located on Ecological support areas** (ESA) while coop numbers 9, 11, 12 and 14 are located on important areas. The rest of the coop numbers are not classified based on C-plan. *Note that more coop placement options were investigated in the Wetland study, thus numbers 1 to 14 are relevant to the map shown



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

If YES, specify and explain:

N/A

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

If YES, specify and explain:

N/A

Was a specialist consulted to assist with completing this section	YES ✓	NO

If yes complete specialist details

Name of the specialist:	**Limosella Consulting Pty Ltd** **Reg No: 2014/023293/07**
Qualification(s) of the specialist:	**M.Sc Environmental Science, University of Pretoria (2010)** **B. Sc (Hons) Horticulture, University of Pretoria (1999-2000)** **B. Sc (Agriculture) Horticulture, University of Pretoria (1993-1996)**

Postal address:	**389 Rossouw Street Die Wilgers Pretoria**		
Postal code:			
Telephone:	+27 83 4545 454	Cell:	+27 83 4545 454
E-mail:	antoinette@limosella.co.za	Fax:	

Are any further specialist studies recommended by the specialist?	YES	NO ✓
If YES, specify: **N/A**		
If YES, is such a report(s) attached?	YES	NO ✓
If YES list the specialist reports attached below		
N/A		

Signature of specialist:	**Please refer to Wetland Delineation & Functional Assessment attached**	Date:	**MAY 2014**

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

8. LAND USE CHARACTER OF SURROUNDING AREA

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

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial[AN]	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport[N]	23. Train station or shunting yard[N]	24. Railway line[N]	25. Major road (4 lanes or more)[N]
26. Sewage treatment plant[A]	27. Landfill or waste treatment site[A]	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam[A]	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X250m

NORTH

WEST

1, 2 & 7	1, 2 & 7	1, 2 & 7	1,2 & 7	1, 2 & 7
1 & 7	1 & 7	1 & 7	1 & 7	1 & 7
1 & 7	1 & 7		1 & 7	1 & 7
1 & 7	1 & 7	1 & 7	1 & 7	1 & 7
1 & 7	1 & 7	1 & 7	1 & 7	1 & 7

EAST

= Site

SOUTH

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

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

Have specialist reports been attached If yes indicate the type of reports below	YES **X**	NO
Ecology and Wetland Assessment Report		

9. SOCIO-ECONOMIC CONTEXT

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

The proposed development is located on farm land that has been used for chicken farming for some time. Additional chicken houses and increased farming activities will not have a negative impact on the socio-economic context. The availability of more breeding stock will benefit the industry and provide in the demand for food.

The proposed development is desirable in the area for the following reasons:

- The expansion of the RCF breeding programme within this area will bring in diversity to the types of economic activities that exist in the area and accelerate the capital flow in the area.
- The expansion of the farming activities will increase business and direct employment opportunities in the area, thus contributing to socio-economic growth.
- It is envisaged that the proposed development will have a positive input in the production of poultry products within the South African context and reduce the amount of white meat (poultry) that the country imports.

Several potentially significant impacts that may arise as a result of the proposed development in the area have been identified. These impacts may result from the different phases of the development which are construction and operational phases respectively. These potential impacts may also differ in size and extent. During the construction phase, the following impacts may occur: soil erosion; disposal of waste and spillages; noise, and dust or air pollution.

During the operational phase of the proposed development, the following potential significant impacts may occur: solid waste; visual impacts; scavenging animals; smell, and diseases to neighbouring farms. The potential significant impacts outlined above are discussed and addressed in the Environmental Management Plan (EMP) for the proposed development.

The broiler infrastructure is semi-permanent and generates an environmental impact of low significance to the development site. This allows for the potential commercial agricultural activities in future with minimal decommissioning costs related to the broiler operation. It must be noted that broiler infrastructure will be easy to remove without significant impact on the environment.

10. CULTURAL/HISTORICAL FEATURES

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

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

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

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

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

(i) exceeding 5 000 m2 in extent; or

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

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

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

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

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

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

N/A

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

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

A Heritage Impact Assessment has been done. See Report in Appendix G3.

Will any building or structure older than 60 years be affected in any way?	YES	NO **X**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)? If yes, please attached the comments from SAHRA in the appropriate Appendix	YES	NO **X**

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

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

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

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

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

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

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

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

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

2. LOCAL AUTHORITY PARTICIPATION

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

Has any comment been received from the local authority?	YES	NO **X**

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

N/A

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

The local authorities have been informed of the proposed development by notification letters distributed via email. I&APs were invited to register when the period for public participation commences (notifications were placed on site and in newspapers). **No responses or comments were received after these actions. The reason for this is most likely due to the distance of the development from the residential areas and because it is a private farm that has already been used for the purpose of chicken farming.**

Stakeholders an new I&APs will have 30 days to comment on the Draft BAR (that will be made available to the Kungwini Local Municipality, and displayed in an appropriate location with access to the public, e.g. the public library).

3. CONSULTATION WITH OTHER STAKEHOLDERS

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

Has any comment been received from stakeholders?	YES	NO **X**

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

N/A

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

No comments received to date, comments could be anticipated once the Draft Basic Assessment Report (DBAR = this report) has been circulated. Comments received in response to the DBAR will be included in the Final Basic Assessment Report (FBAR) and comments and responses received will be included in the comments and response report.

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Kungwini Local Municipality parag@kungwinimun.co.za
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Fax: (013) 932-0641, (013) 932-3752
Street Address: Corner of Botha & Kruger St
Bronkhorstspruit 1020
Postal Address: P.O. Box 40
Bronkhorstspruit 1020

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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

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

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice	**To be attached to final BAR**
Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above	**To be attached to final BAR**
Appendix 3 – Proof of newspaper advertisements	**To be attached to final BAR**
Appendix 4 –Communications to and from persons detailed in Point 2 and 3 above	**No communication has occurred**
Appendix 5 – Minutes of any public and/or stakeholder meetings	**N/A-No meeting has been held yet**
Appendix 6 - Comments and Responses Report	**N/A-No comments received yet**
Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report	**N/A – no comments received**
Appendix 8 –Comments from I&APs on amendments to the BA Report	**N/A-No comments received yet**
Appendix 9 – Copy of the register of I&APs	**To be attached to final BAR**
Appendix 10 – Comments from I&APs on the application	**N/A To be attached to final BAR**
Appendix 11 - Other	

SECTION D: RESOURCE USE & PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

Section D has been duplicated for alternatives (complete only when appropriate) **"1"** times

Section D Alternative No. **"1"** Preferred option (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES	**NO X**
If yes, what estimated quantity will be produced per month?		

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

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

Will the activity produce solid waste during its operational phase?	**YESX**	NO
If yes, what estimated quantity will be produced per month?	**N/A**	

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

Poultry manure will be removed on manure belting at a frequency that will be determined by the age of the flock (varying between fortnightly to three times per week).

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

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

Not Applicable – very little waste produced.

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	YES	NO **X**

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

N/A

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

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

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

Chicken manure is used for fertiliser products

Broken light bulbs and fittings, containers etc are sorted in containers and availed for recycling.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	**NO X**
If yes, what estimated quantity will be produced per month?		
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?	YES	**NO X**
Will the activity produce any effluent that will be treated and/or disposed of on site?	Yes	**NO X**
If yes, what estimated quantity will be produced per month?		

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

N/A

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

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

If yes, provide the particulars of the facility:

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

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

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	YES	**NO X**
If yes, what estimated quantity will be produced per month?		
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?	YES	NO
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	NO

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

N/A

Emissions into the atmosphere

Will the activity release emissions into the atmosphere? ***Poultry farming is not a listed activity in terms of the Atmospheric Pollution Prevention Act. Minor emissions may occur from the manure. Manure will be regularly cleared***	YES	**NO X**
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:

N/A

2. WATER USE

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

Municipal	Directly from water board	Groundwater **X**	river, stream, dam or lake	other	the activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month: **75000litres/ha/annum**

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

Does the activity require a water use permit from the Department of Water Affairs?	YES	NO**X**

If yes, list the permits required

If yes, have you applied for the water use permit(s)?	YES	NO **X**
If yes, have you received approval(s)? (attached in appropriate appendix)	YES	NO **X**

3. POWER SUPPLY

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

Eskom power

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

Generators (if Eskom fails)

4. ENERGY EFFICIENCY

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

In future, the poultry house will have be coal heaters when required in the breeding cycle. The coops are a closed system, allowing for more efficient climate control.

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

N/A

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

No issues have been raised to date.

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

This requirement will be met when finalising the BAR following receipt of comments and issues, a comments and response report will be attached.

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION & OPERATIONAL PHASE

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

The potential impacts of the proposed development were identified through a site visit, the Environmental Assessment Practitioners experience and expertise in the field and specialist studies.

In this Draft Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts.

In general, it is recognised that every development has the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are taken into account during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, and an environmental evaluation.

Previous experience has shown that it is often not feasible or practical to only identify and address possible impacts. The rating and ranking of impacts is often a controversial aspect because of the subjectivity involved in attaching values to impacts.

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.
The classes are rated as follows:

1) No significance
The impact is not substantial and does not require any mitigatory action.

2) Low
The impact is of little importance, but may require limited mitigation.

3) Medium
The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

4) High
The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

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

This section contains the assessment of potentially significant positive and negative environmental impacts associated with the proposed project. Specific emphasis was placed on any relevant significant environmental, social and economic impacts identified from the specialist studies and professional judgement of the EAP

(Envirolution Consulting Pty Ltd). The objectives of the specialist studies and further investigation by Envirolution of each of the potential environmental impacts identified was to determine their significance and to promote mitigation measures to reduce the impacts to an acceptable level where required.

All of the identified impacts are assessed in a separate section. Considering the general nature of the proposed project, impacts anticipated occurring during construction phase and operational phase were assessed for proposed preferred alternative.

All potential environmental impacts have been addressed in this section, according to the adopted methodology for assessing impacts as described in Section 2.

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Loss of habitat and biodiversity loss The proposed development site is surrounded by mainly agricultural smallholdings. Construction: Site clearing for the proposed development will result in the removal of current vegetation (which is dominated by grass). Alteration in natural fire regimes The construction of the proposed development will require clearing of the site, mainly grass. No fauna were spotted on site. The construction phase of the development is temporary . Operational: Loss of vegetation. Operational phase will be long term.	Low	• All construction activities should be confined to the project site. Educate workers on minimizing damage to vegetation during construction • Only vegetation that must be removed for the construction of the project should be removed and the footprint must be kept as small as possible. • No burning of stockpiled vegetation is permitted. • Alien vegetation must be cleared from the footprint of the project prior to construction; • Sensitive vegetation (wetlands and primary grasslands) that should not be impacted by construction activities should be cordoned off throughout the construction periods to restrict the movement of vehicles and any other development into such areas	Low
Impact on Wetlands The proposed construction is likely to have some impact on the wetland system especially with regards to erosion and sedimentation of the wetland system. • The unchannelled valley bottom is likely to be sensitive with regards to flow alterations • Seepage areas are generally on sloped areas where erosion is prone to occur	medium	• To control flow alterations, stormwater management should thus be managed well. • erosion control methods should be implemented in sloped areas. • During operation, carcasses of any breeding stock that may have died before transported to production farms are disposed of properly to ensure that waste does not leech or enter the wetlands and watercourses in any way. • Bird droppings contain high amounts of phosphates and nitrates which can deteriorate the quality of the water in these systems as well as lead to eutrophication and possible algal blooms. To ensure that the quality of the water does not deteriorate it is	Low

		advised that water quality test be conducted monthly by an independent company to ensure that the levels of phosphates and nitrates do not exceed the current level.	
Changing the quantity and fluctuation properties of the watercourse. **Construction:** • Development within wetland. • Lack of adequate rehabilitation resulting in invasion by exotic plants into the wetland. **Operational:** • Droppings and other foreign material could enter the wetlands • The works areas generally include the servitude, construction camps, areas where material is stored from which pollutants could originate.	medium (new coops)	• No activities should take place in the watercourses and associated buffer zone. • A temporary fence or demarcation must be erected around the works area to prevent access to sensitive environs. • Construction in and around watercourses must be restricted to the dryer winter months. • Prevent pedestrian and vehicular access into the wetland and buffer. • Formalise access roads and make use of existing roads and tracks where feasible, rather than creating new routes through naturally vegetated areas. • Management of on-site water use and prevent stormwater or contaminated water directly entering the watercourse • Management of point discharges • Planning of construction site must include eventual rehabilitation / restoration of indigenous vegetative cover • Alien plant eradication and follow-up control activities prior to construction, to prevent spread into disturbed soils, as well as follow-up control during construction • The amount of vegetation removed should be limited to the least amount possible. • Rehabilitation plans must be submitted and approved for rehabilitation of damage during construction and that plan must be implemented immediately upon completion of construction. • Ensure proper disposal of all bird droppings as well as any dead chicks and other foreign material that could possibly drain into the wetland. • Conduct monthly independent water analysis test to ensure that the quality of the water does not decrease.	low
Changing the amount of sediment entering water resource and associated change in turbidity (increasing or decreasing the amount) **Construction:** • Earthwork activities to construct towers.	medium	• Construction in and around watercourses must be restricted to the dryer winter months. • A temporary fence or demarcation must be erected around the works area to prevent water runoff and erosion of the disturbed or heaped soils into wetland areas. • Access roads and bridges should span	Low

• Clearing of surface vegetation will expose the soils, which in rainy events would wash down into wetlands, causing sedimentation. In addition, indigenous vegetation communities are unlikely to colonise eroded soils successfully and seeds from proximate exotic vegetation can spread easily into these eroded soil. • Disturbance of soil surface • Disturbance of slopes through creation of roads and tracks • Changes in runoff characteristics • Erosion (e.g. gully formation, bank collapse) ***Operational:*** • Vehicles impacting on surface vegetation • Access dirt roads.		the wetland area, without impacting on the permanent or seasonal zones. • Formalise access roads and make use of existing roads and tracks where feasible, rather than creating new routes through naturally vegetated areas. • Retain vegetation and soil in position for as long as possible, removing it immediately ahead of construction / earthworks in that area (DWAF, 2005). • A vegetation rehabilitation plan should be implemented. Grassland can be removed as sods and stored within transformed vegetation. The sods must preferably be removed during the winter months and be replanted by latest springtime. The sods should not be stacked on top of each other or within sensitive environs. Once construction is completed, these sods should be used to rehabilitate the disturbed areas from where they have been removed. In the absence of timely rainfall, the sods should be watered well after planting and at least twice more over the next 2 weeks. • Remove only the vegetation where essential for construction and do not allow any disturbance to the adjoining natural vegetation cover. • Rehabilitation plans must be submitted and approved for rehabilitation of damage during construction and that plan must be implemented immediately upon completion of construction. • Cordon off areas that are under rehabilitation as no-go areas using danger tape and steel droppers. If necessary, these areas should be fenced off to prevent vehicular, pedestrian and livestock access. • Delay the re-introduction of livestock (where applicable) to all rehabilitation areas until an acceptable level of re-vegetation has been reached. • During the construction phase measures must be put in place to control the flow of excess water so that it does not impact on the surface vegetation. • Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas. • Runoff from roads must be managed to avoid erosion and pollution problems.	

		• Implementation of best management practices • Source-directed controls • Buffer zones to trap sediments • Active rehabilitation • It is advisable that dirt roads not be located close to a wetland area as sediment input is likely to increase.	
Alteration of water quality – toxic contaminants (including toxic metal ions (e.g. copper, lead, zinc) and hydrocarbons. Construction: • Runoff from road surfaces • Discharge of solvents, and other industrial chemicals *Operational:* Runoff from road surfaces • Discharge of solvents, and other industrial chemicals • Drainage from chicken coops possibly including contaminants.	medium	• After construction, the land must be cleared of rubbish, surplus materials, and equipment, and all parts of the land shall be left in a condition as close as possible to that prior to use. • Ensure that maintenance work does not take place haphazardly, but, according to a fixed plan, from one area to the other. Maintenance of construction vehicles • Control of waste discharges • Guidelines for implementing Clean Technologies • Maintenance of buffer zones to trap sediments with associated toxins • Ensure proper disposal of all bird droppings as well as any dead chicks and other foreign material that could possibly drain into the wetland. • Conduct monthly independent water analysis test to ensure that the quality of the water does not decrease.	Low
Heritage Resources Due to the lack of heritage sites or features in the proposed development areas there any impact is highly unlikely.	Low	If during construction, any archaeological finds are made (e.g. stone tools, skeletal material), the operations must be stopped, and the archaeologist must be contacted for an assessment of the finds.	Low
Soil erosion: Construction earthworks may cause soil erosion.	Low (improbable gradient is gradual)	• Construction activities should preferably take place during the dry winter months. • The duration of exposed soil must be kept to a minimum and rehabilitation must be initiated as soon as construction is completed. • Following the completion of construction activities the disturbed areas should be ripped, scarified, landscaped to the original landscape profile, and re-vegetated with suitable indigenous grass species that will aid in soil stabilisation.	Low
Impacts on stormwater: The accumulation of stormwater.	Medium	• No stockpiles or construction materials may be stored or placed within any drainage line that may be in close proximity of storm water drains. • No stockpiles or construction materials may be stored or placed in close proximity to storm water drains.	Low

Dust impacts on air quality: • The increased dust, smoke and emissions resulting from construction activities (vegetation clearing, site preparation, earthworks, uncovered topsoil stockpiles and sand piles, loads on vehicles); vehicles, plant and machinery poses a health hazard to construction staff and people living and working in the vicinity of the site. The area is relatively remote and located in farming lands, so few residents would be impacted upon. • Dust could be created during construction activities and travel on the dirt road. • Dust during operation will be limited to periods when the breeding cycle is completed and stock needs to be moved to other farms. This is an insignificant event, as such operations already take place on the farm.	Low	• Speed restriction of 20km/h must be implemented for all construction vehicles. • All vehicles transporting friable materials such a sand, rubble etc must be covered by a tarpaulin or wet down. • It is recommended that the clearing of vegetation from the site should be selective and done just before construction so as to minimise erosion and dust. • No burning of refuse or vegetation is permitted. • There will not be continuous flow of traffic, as it depends on the breeding cycles and receipt and delivery needs for stock. • Dirt road surfaces close to the existing coops should be watered to avoid dust during breeding cycles.	Low
	Low		Low
Visual Impacts: Construction phase: • Littering and illegal dumping on the site may result in an alteration of the visual character of the site. • The development will result in the removal of vegetation and the construction of buildings which may be visually intrusive. • Lights from the contractor's camp and the construction site will be visually intrusive. Operational phase • The area is already used for chicken farming and the road is not used by many residents, thus impact will be low during operation	Low	• Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent or surrounding properties during or after the construction period. • No wastes may remain on the construction site for more than two weeks. • Ensure good housekeeping is implemented at all times. • Lighting on site is to be sufficient for safety and security purposes, but shall not be intrusive to neighbouring residents, or interfere with road traffic;	Low

Noise: Construction phase There will be an increase in ambient noise during the construction of the new coops– plant, machinery, equipment and vehicles. Operational phase The area is already used for chicken farming and noise impact will be low during operation	Low	1. Construction activities must be limited to normal working hours and according to municipal bylaws, i.e. working hours must be limited to weekdays only. 2. If work is to be undertaken outside of normal work hours permission, must be obtained. Prior to commencing any such activity the Contractor is also to advise the potentially affected neighbouring residents. Notification could include letter-drops. 3. Equipment that is fitted with noise reduction facilities (e.g. side flaps, silencers etc) must be used as per operating instructions and maintained properly during site operations	Low
Traffic: Increased traffic congestion could possibly occur as a result of construction vehicles moving onto and off the site during construction. Traffic on the road is generally low, thus the impact would not be significant. Operational phase During operation, the number of vehicles would not increase significantly	Low	Construction vehicle movement to and from site must be outside peak hour traffic (07:00am - 09:00am, & 16:00pm – 18:00pm.) Vehicles must drive at a max speed of 30km/hour to avoid dust and poor visibility	Low
Waste Management Construction phase During operation, Construction rubble left onsite may attract vermin, encourage the growth of opportunistic alien vegetation and become unsightly Littering on site may attract vermin, pollute the surrounding areas and become unsightly Operational phase During operation, it is standard operations at RCF to handle waste with care as to avoid chicken mortalities and pollution. No slaughtering will take place at these coops.	Medium	• Littering will not be permitted on the site and general housekeeping will be enforced. General waste bins must be readily available for litter disposal and general housekeeping. • All solid waste generated during the construction process must be placed in a designated waste collection area within the construction camp and must not be allowed to blow around the site, be accessible to animals, or be placed in piles adjacent the waste skips/bins. All solid waste must then be disposed of at the nearest licensed landfill and safe disposal certificates obtained. Separate waste skips/ bins for the different waste streams must be available on site. • The waste containers must be appropriate to the waste type contained therein and where necessary should be lined and covered. • No waste (hazardous or general) will be disposed of in the excavated areas • All excess material and rubble must be removed from the site so not to restrict the rehabilitation process. • Adequate toilet facilities must be provided for all staff members as standard construction practice. • Monitor the sewerage facilities for	Low

		spillages, and handle any spillages as hazardous waste; • All hazardous material must be carefully stored and then disposed of offsite at the licensed hazardous landfill site • Machinery must be properly maintained to keep oil leaks in check	
Impacts of hazardous chemicals/fuels Construction phase Risk of spills from construction equipment (oils, fuels, cement etc) contaminating soil and the watercourse. Operational phase Chemicals stored in the decontamination facilities could lead to spillage.	Medium	• Any hazardous or dangerous goods utilized during the construction phase must be stored on an impermeable surface that is bunded, fenced, locked and covered. • Spillkits must be regularly checked and maintained. • Remediation of spillages must be conducted on a continual basis and within 24h of spillage; • Contaminated soil will be considered to be hazardous waste and disposed of accordingly.	Low (Negative)
Socio-economic Impacts • Expanding the farming activities will result in direct jobs being created for the construction of the facilities. Indirectly, jobs are also created in industries that provide goods, materials and services. • The proposed development will lead to an increase in the level local employment in the areas surrounding the development site. Both short-term and long-term employment will be created in this case. • The development will lead to the increase of food in the primary market area	Positive	• There are no mitigation measures as the impact is positive. • The proposed expansion will be associated with positive socio-economic impacts in terms of job creation and food supply	Positive

Alternative 1:

Potential impacts:	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**
N/A	**N/A**	**N/A**	**N/A**

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

Wetland Assessment Report and Heritage Impact Assessment Report (Please refer to **Appendix)**

3. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING & CLOSURE PHASE

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

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Decommissioning and closure will require the removal of structures and rehabilitation of the area The facility is seen as a permanent development.	Low	A detailed closure plan will have to be compiled and implemented.	Low

Alternative 1

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
N/A	N/A		N/A

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

N/A

4. CUMULATIVE IMPACTS

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

Cumulative impacts can result from actions which may not be significant on their own but which are significant when added to the impact of other similar actions. The area of development falls within the Kungwini Local Municipal area. Impacts will be limited to the municipal dump and the Eskom Power Supply will be required to provide power for the chicken runs. The current electricity supply to the property is deemed to be enough. The volume of water supply that is abstracted from boreholes is within the General Authorisation for the area.

5. ENVIRONMENTAL IMPACT STATEMENT

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

Proposal PREFERRED

This report is intended to offer an objective assessment of the potential environmental impacts and issues / concerns raised during the environmental basic assessment process. The Impact Assessment section of this report indicates that the most significant environmental impacts associated with the proposed project can be effectively mitigated to have a medium significance impact rating. It is the opinion of Envirolution Consulting (Pty) Ltd that the proposed project will not have a significant environmental impact and is therefore preferred. It can also be concluded that there are no fatal flaws of the proposed project. Impacts that have been identified can be appropriately mitigated and managed. A monitoring and auditing program must be developed by during the construction phase to ensure that this is in fact the case.

Responsible environmental management will be required on site, during the planning and construction phases of the development. These management measures should be guided by the Environmental Management Programme (EMPr), attached as **Appendix H.**

Impacts that have been identified can be appropriately mitigated and managed. A monitoring and auditing program must be developed by during the construction phase to ensure that this is in fact the case. Responsible environmental management will be required on site, during the planning and construction phases of the development. These management measures should be guided by the Environmental Management Programme, attached as **Appendix H.**

Alternative 1

N/A

No-go (compulsory)

The farm is already used for chicken farming and is viewed as an ideal location for this purpose since it is located far enough from other chicken farms, to prevent spreading of germs and viruses. There will be no significant changes to the natural environment should the development not go ahead.

However, there will be a loss of sustainable employment opportunities. The direct impacts of the No-Go option, would be that the applicant cannot increase his existing pullet supply and will not be able meet the increased demand, and may be forced to develop another site, which may have more significant impacts, while the current site will remain under-utilised. Indirect impacts will be that the demands of local and regional retailers will not be met by this operation, forcing them to source pullets outside of the local area, thus losing valuable revenue.
The cumulative impacts will be that the existing poultry industry will remain economically static with little potential to increase product supply or to provide additional employment opportunities. The No Go alternative is thus not feasible, as it would most likely cause the same development to occur elsewhere, occupying additional land and new infrastructure in future.

6. IMPACT SUMMARY OF PROPOSAL OR PREFERRED ALTERNATIVE

For proposal: **PREFERRED**

Based on the findings of the Basic Assessment, the proposed activity will have no long term negative impacts of medium or high significance on the receiving environment, if the mitigation measures and management of the impacts are undertaken.

The utilisation of the land is for the purposes of breeder/broiler farming of poultry as such pose no major environmental impact or threat. The information contained within this report supports the application.

Alternative 1: Technology Alternative

N/A

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

The current site determination was made by the following facts:

Location

The applicant plans to use its own site, located at -25.774189° 28.830766° on and the reasons for selecting this site are (a) that the site is owned by the developer RCF, and (b) the site has already been used for chicken farming.

Therefore the preferred site is the best and most **effective alternative** with respect to design and layout for the proposed development; and it is the most **cost effective alternative** with respect to design and layout for the proposed development.

7. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner).	YES **X**	NO

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

The proposed footprints on the farm are currently vacant and not conservation worthy. The additional poultry houses will in keeping with the context, it will not be visually intrusive. The overall anticipated environmental impacts, associated with the construction of additional poultry houses, are considered to be of low significance. Based on the above, the proposed site is the most suitable for the proposed development.

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

Mitigation should focus on:

- Rehabilitation / restoration of indigenous vegetative cover.
- Management of point discharges during construction activities.
- Alien plant control.
- Implementation of best management practices regarding stormwater and earthworks.
- Provision of adequate sanitation facilities located outside of the wetland area or its associated buffer zone during construction activities.
- Implementation of appropriate stormwater management around the excavation to prevent the ingress of run-off into the excavation.
- Prevention of erosion, and where necessary rehabilitation of eroded areas.
- A buffer zone of 500 m around the wetlands, must be treated as "sensitive areas" during construction and operation of the proposed activities

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

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

EMPr attached	**YES**

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:
It is required that if more than one item is enclosed that a table of contents is included in the appendix

APPENDIX A: LOCALITY MAP/SITE PLAN(S)

Figure A1: Regional Locality map
Figure A2: Existing Facilities
Figure A3: Proposed expansion of Facilities

Figure A1: Regional Locality Map

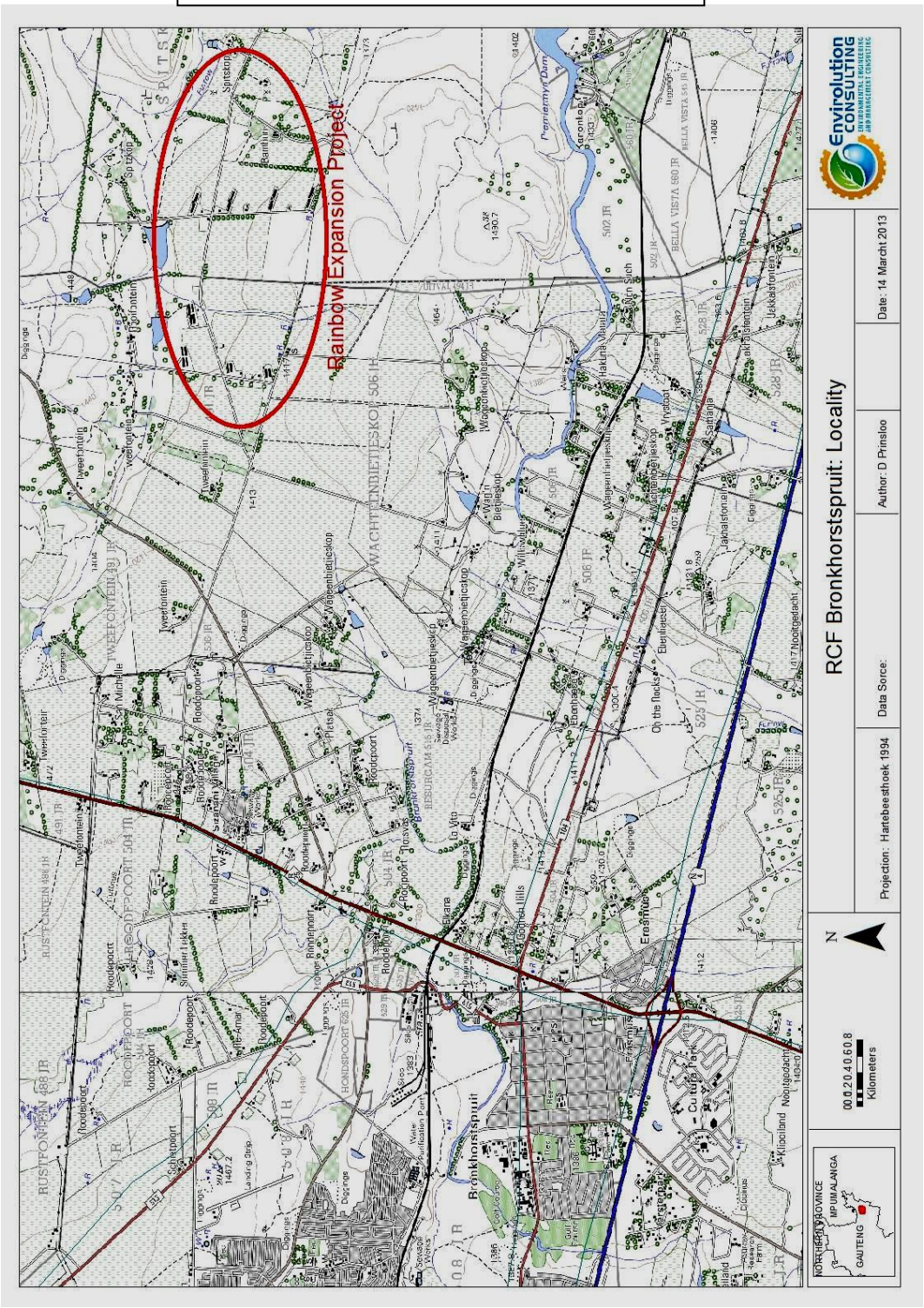


Figure A2: Existing farming facilities

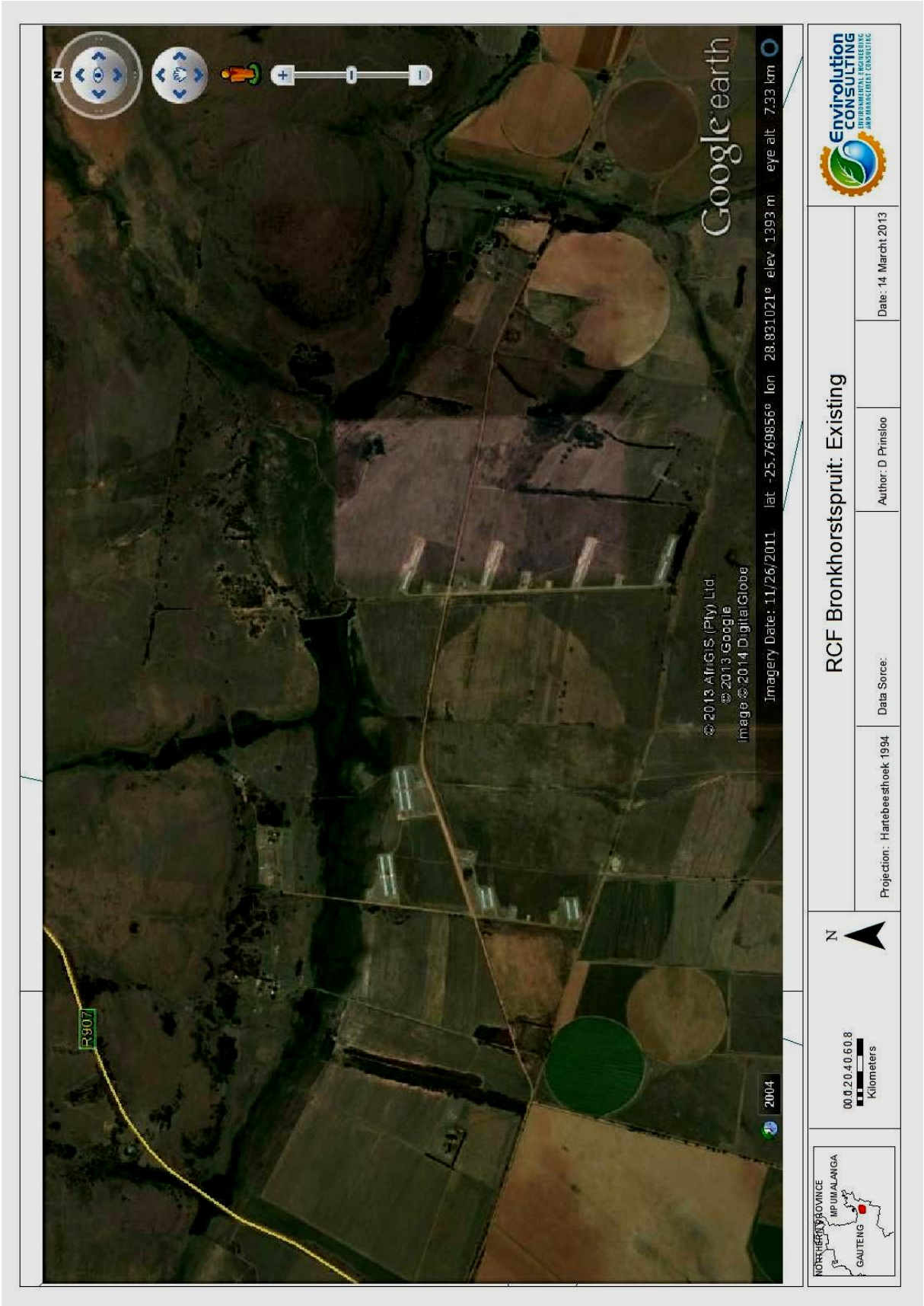
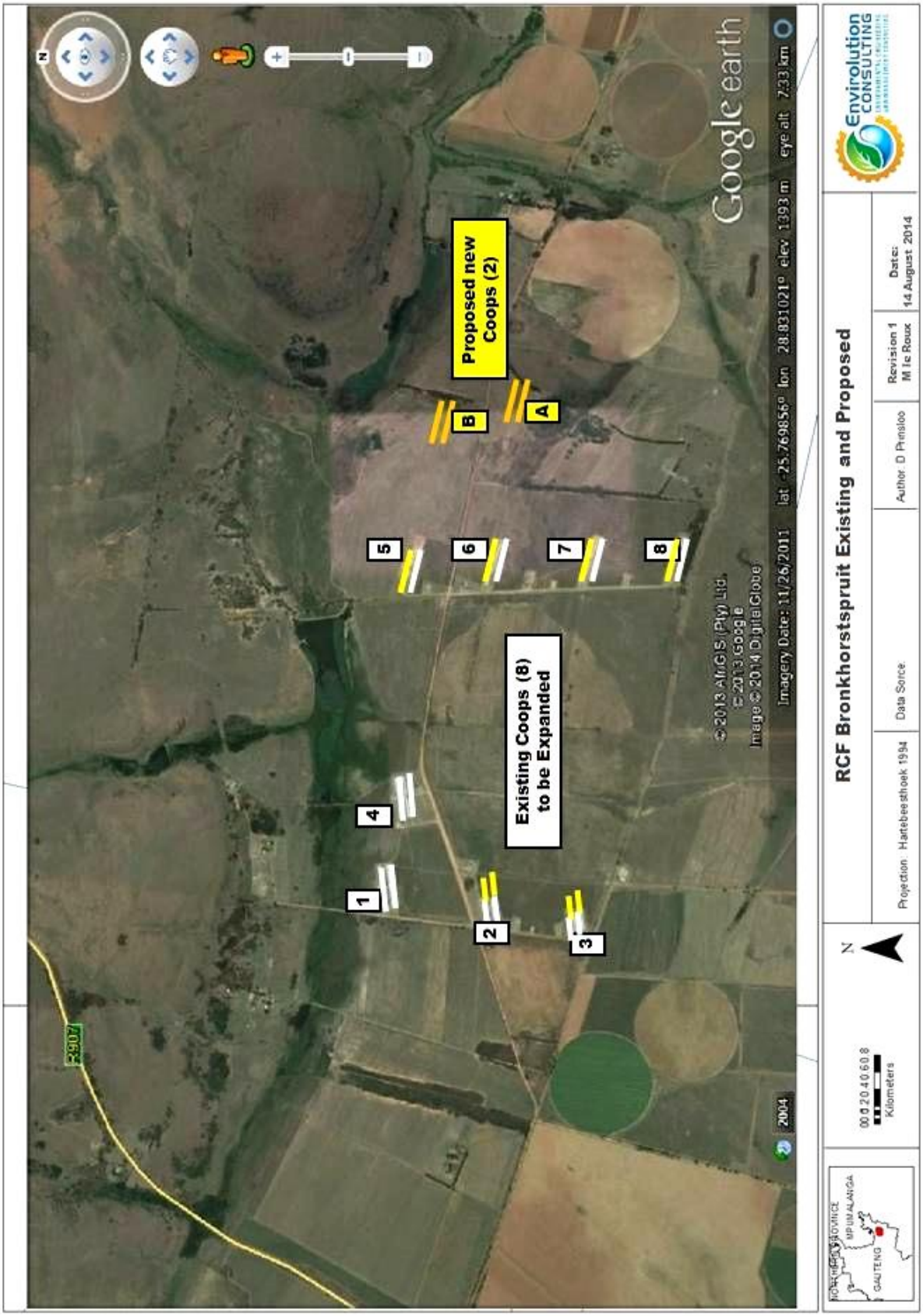


Figure A2: Proposed expansion of farming facilities (shown in yellow)



APPENDIX B: PHOTOGRAPHS

Photo 1: Access road to site (summer)

Photo 2: Existing facilities (broiler)

Photo 3: Site for proposed expansion of facilities (winter/dry season)

Photo 4: Rocky outcrops & grass on alternative sites

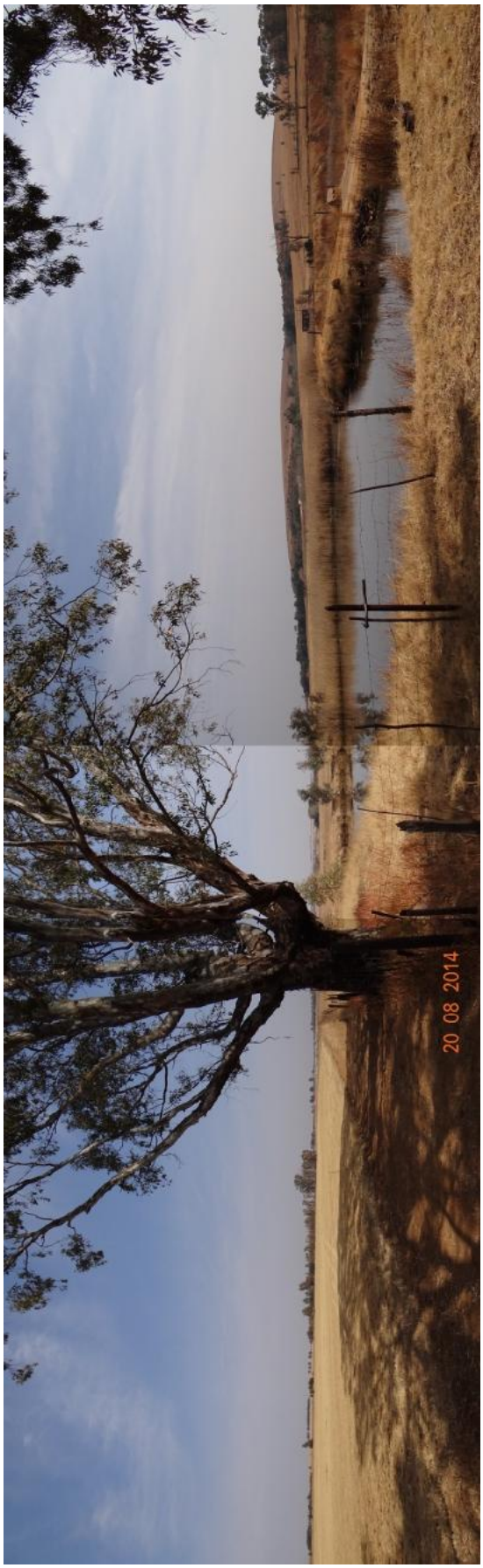
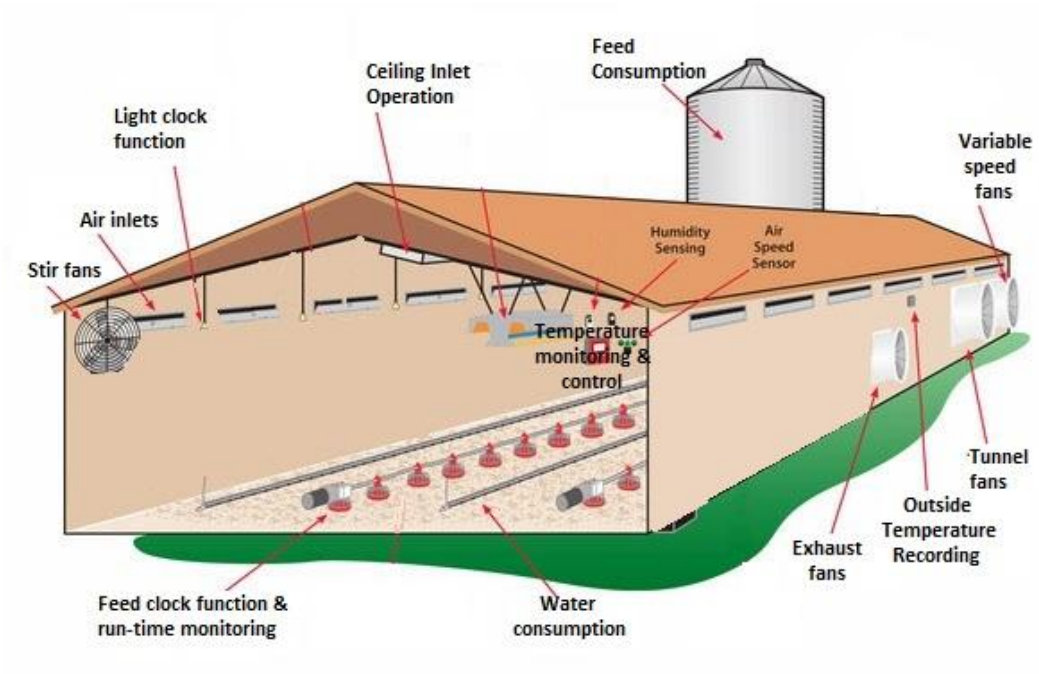
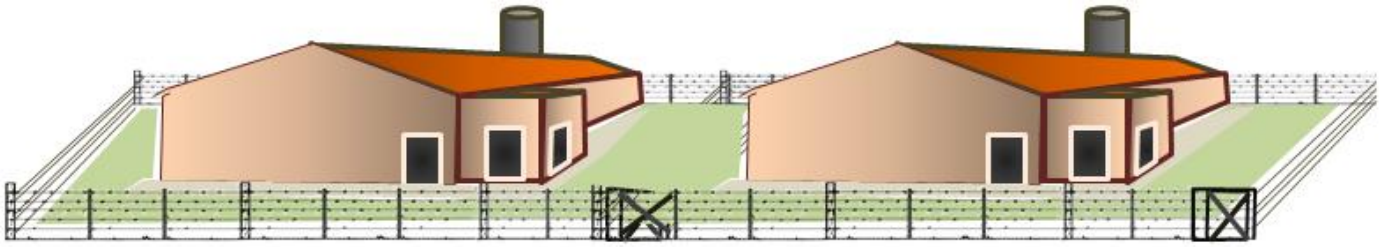


Photo 6: View towards wetland area

Photo 7: Typical vegetation/landscape

APPENDIX C: FACILITY ILLUSTRATION(S)





APPENDIX D: ROUTE POSITION INFORMATION

N/A - Not a Linear development

APPENDIX E: PUBLIC PARTICIPATION INFORMATION

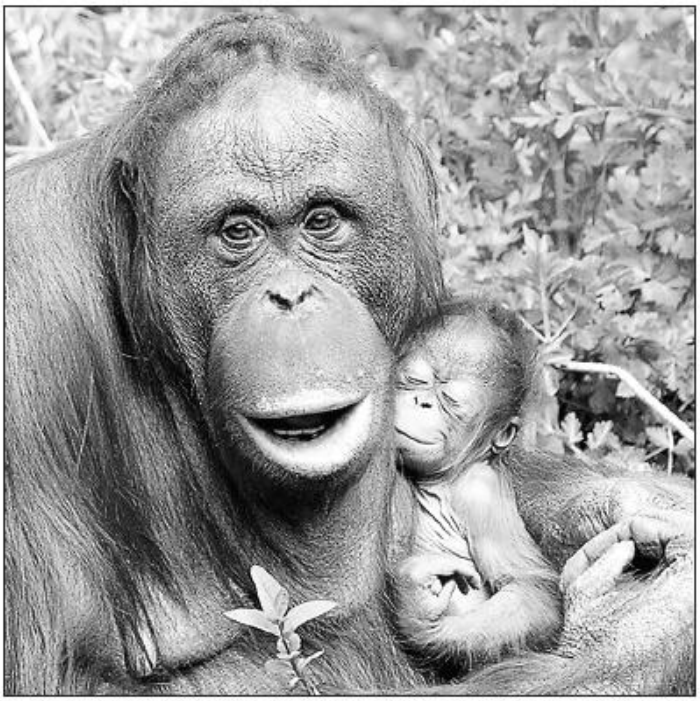
Appendix 1 – Proof of site notice	**Attached**
Appendix 2 – Written notices	**To be attached to final BAR**
Appendix 3 – Proof of newspaper advertisements	**Attached**
Appendix 4 –Communications to and from persons	**To be attached to final BAR**
Appendix 5 – Minutes of any public/stakeholder meetings	**N/A-No meeting has been held**
Appendix 6 - Comments and Responses Report	**N/A-No comments received yet**
Appendix 7 –Comments from I&APs on BAR	**N/A – no comments received**
Appendix 8 –Comments from I&APs on amendments BAR	**N/A-No amendments made**
Appendix 9 – Copy of the register of I&APs	**No I&APS have registered**
Appendix 10 – Comments from I&APs on the application	**No comments were received,**
Appendix 11 - Other	

Appendix 1 – Proof of site notice

Appendix 3 – Proof published notice

community news/gemeenskapsnuus

Pet's Corner



Dis 'n Bybelse opdrag om altyd lief te wees vir my kinders ... maar daar staan nêrens dat ek elke dag van hulle moet hou nie!

Tshwane SPCA/DBV

Office hours : 8am - 4:30pm weekdays and 8am - 12pm Saturdays.

* **Pretoria (main office)**
Tel: 012 803 5219/083 290 7498
Fax: 012 803 5775
316 Petroleum Street, Waltloo, 0184
E-mail:admin@spcapta.org.za

* **Centurion (branch)**
Tel : 012 664 5644/5
Fax: 012 664 4661
Kruger Avenue, Lyttelton, 0140
E-mail:centurion@spcapta.org.za

Springs SPCA/DBV

Tel : 082 668 5230 / Emergency No :083 377 7029
* Our charity shop open from 9am - 4pm Monday to Friday and 9am- 12pm on Saturdays.

Metsweding Animal Welfare

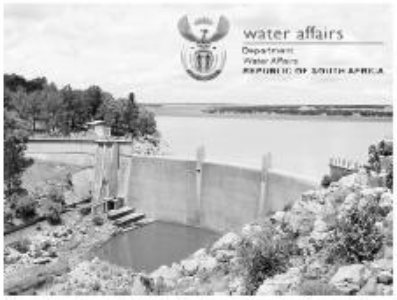
Tel : 082 413 0350 - Cecilia Knox
Baking details : ABSA - 808 144 735

Pekingese Rescue : BHSpruit

Tel : 071 513 5976 - Maryna van Staden
Bank : Standard Bank Bronkhorstspruit
Takkode 052850
Rekeningno : 031 746 330
Verw : Pekingese Rescue : Bronkhorstspruit

Wetnose Animal Rescue Centre

Tel 013 932 3941/2 - on old Pretoria/Bronkhorstspruit road.
Our office hours for adoptions or volunteers:
Monday – Friday 8am – 4:30pm
Saturday 9am - 4pm
Sunday 10am - 12pm
We're closed on public holidays!!



Bronkhorstspruit Dam. Information gathered from www.dwa.gov.za/hydrology

State of Dams

The state of dams in the reader area on 31 March 2014 (Latest available official data). Estimated current levels are much higher.

* Bronkhorstspruit

River	Bronkhorstspruit
FSC (Full storage capacity)	57.0
Week ending 10 March 2014	94.6%
Previous week	94.5%
Last year	73.7%

* Rietvlei

River	Hennops River
FSC	12.3
Week ending 10 March 2014	101.2%
Previous week	100.6%
Last year	100.0%

* Roodeplaat

River	Pienaars River
FSC	41.2
Week ending 10 March2014	100.7%
Previous week	100.6%
Last year	93.8%

* Bon Accord Dam

River	Apies River
FSC	4.4
Week ending 17 March 2014	104.8%
Previous week	105.4%
Last year	106.6%

INVITATION TO COMMENT

NOTICE OF BASIC ASSESSMENT FOR PROPOSED RAINBOW FARMS EXPANSION OF AGRICULTURE OPERATIONS ON FARM TWEEFONTEIN AND FARM SPITSKOP, BRONKHORSTSPRUIT, GAUTENG PROVINCE

GAUTENG REF NO: 002/13-14/E0342

Notice is given in terms of Regulations published in Government Notice R. 543, 544 and 546 in Government Gazette No. 33306 of 18 June 2010, under Section 24(5) of the National Environmental Management Act, 1998 (Act No.107 of 1998), as amended, that Rainbow Farms (PTY) Ltd is proposing the expansion of the Agriculture operations on Farm Tweefontein 491 and Farm Spitskop 502, Bronkhorstspruit.

The following Listed Activities apply:

Notice	Activity	Description
544, 18 June 2010	11	The construction of a bridge within a watercourse.
544, 18 June 2010	18 (i)	The infilling or depositing of more than 5 cubic metres of material into a watercourse.
544, 18 June 2010	32 (ii)	The expansion of facilities for the concentration of poultry, excluding chicks younger than 20 days, where the capacity of the facility will be increased by: iii more than 5 000 poultry per facility situated outside an urban area.
544, 18 June 2010	35	The expansion of hatcheries, outside industrial complexes, where the development footprint of the hatchery will be increased by 2000m² or more.
544, 18 June 2010	39 (iii)	The expansion of bridges within a watercourse.
546, 18 June 2010	12 (a)	The clearance of an area of 300 square metres or more of Rand Highveld Grassland (Gm 11) vegetation type, where 75% or more of the vegetative cover constitutes indigenous vegetation. The vegetation type is a listed threatened ecosystem.
546, 18 June 2010	13(v)	The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation in sites identified as irreplaceable or important in the Gauteng Conservation Plan (3.3).

Interested and/or affected parties who wish to participate by contributing comments in writing, or who would like to obtain more information, should please contact Dirk Prinsloo at, Tel: 0861 444 499, E-mail: dirk@envirolution.co.za on or before 14 May 2014.

Envirolution CONSULTING

APPENDIX F: WATER USE LICENSE(S) AUTHORISATION, SAHRA INFORMATION, SERVICE LETTERS FROM MUNICIPALITIES, WATER SUPPLY INFORMATION

To be included in final BAR

APPENDIX G: SPECIALIST REPORTS

APPENDIX G1: ECOLOGY AND WETLAND ASSESSMENT REPORT

APPENDIX G3: HERITAGE ASSESSMENT REPORT

APPENDIX H: DRAFT EMPR

1) BACKGROUND

The project entails the expansion of the Rainbow Farms (Pty) Ltd farming operations on Farm Tweefontein and Farm Spitskop, Bronkhorstspruit. Gauteng. These farms have been used for chicken farming for some time. The existing coops will be expanded by adding more chicken houses directly adjacent to them. In addition to this, 2 new sets of chicken coops are proposed to the east of the existing eight coops.

During the operational phase of the proposed development, the following potential significant impacts may occur: solid waste; visual impacts; scavenging animals; smell, and diseases to neighbouring farms. The potential significant impacts outlined above are discussed and addressed in this Environmental Management Plan (EMP) for the proposed development.

The broiler infrastructure is semi-permanent and generates an environmental impact of low significance to the development site. This allows for the potential commercial agricultural activities in future with minimal decommissioning costs related to the broiler operation. It must be noted that broiler infrastructure will be easy to remove without significant impact on the environment.

2) OBJECTIVE OF THE EMP

The main purpose of this document is to minimise any potential impact that the construction phase may pose to the environment, as well as guide the operational phase in a safe and environmentally friendly manner. The approval of the development is subject to any conditions and specific requirements as stipulated by GDARD in the Record of Decision (RoD) / Environmental Authorisation (EA), and will form an integral part of the EMP.

The following have reference to the proposed development:

- Building restriction apply to the distance from all borders where a development may happen;
- Regulations apply to the storage and disposal of General Household Waste, and any disposal must comply with such legislation;
- Regulations apply to the abstraction of water from a water resource,
- outside of the General Authorisation, as defined under Section 21 of the National Water Act;
- Where necessary the EMP must allow for the mitigation of any effect that the development may have on the environment;
- The EMP must be adhered to during construction and operational phases of the intended activity;
- In addition to the requirements of the RoD / EA, the following has also been identified:
- The EMP should be flexible to accommodate any unforeseen changes and must be able to incorporate any changes to its management activities, should it be required.

This EMP and its management guidelines have been formulated with the holistic view of minimising any potential indirect impacts to the habitat and adjoining properties. It should be used on site during construction, and is binding on all contractors.

The EMP underwrites a pro-active approach by addressing potential problems before they occur. This should limit corrective measures to be taken during the construction phase of the project.

3) RESPONSIBILITY OF THE ROLE PLAYERS

i. The Contractor / Builder / Owner Builder

The Owner and Contractor are bound to the EMP conditions, and are responsible for that all the conditions of the EMP are adhered to. All should thoroughly familiarise themselves with the EMP requirements before coming on site and must request clarification on any aspect of the document, should such be unclear.

ii. GDACE

Authorisation in the form of a RoD / EA is required from GDACE based on the application and Basic Assessment as submitted [Activity 16(b) and 1(h)(v)]. From the RoD / EA will flow site specific requirements that will align the EMP and the intended activity.

iii. Kungwini Local Municipality

The Kungwini Local Municipality remains not only responsible for the formal approval of the building plans, but also responsible for ensuring that the development is implemented in accordance with the requirements of the EMP. This has already been incorporated in its requirement of a Basic Assessment as part of its authorisation to construct.

4) PRE-CONSTRUCTION; CONSTRUCTION & OPERATIONAL ACTIVITIES

The construction phase can be divided by Pre-construction Phase and the Construction Phase.

The pre-construction phase entails:
- Surveying (pegging out) of the construction site;
- Access route for the delivery of materials;
- Labour toilet facilities;

The Construction phase entails
- Installation of foundations;
- Implementation of engineering services for the construction;
- Infill and compaction;
- Site de-establishment and clean-up;
- Rehabilitation of disturbed areas;
- Final inspection of the site and hand-over to the developer / owners;
- Releasing any contractors and personnel from the site.

The bulk of impacts that may occur will transpire during the construction phase. If monitored on a continual basis these impacts will be identified as they occur. The impacts may then be mitigated through contingency plans and together with a commitment from the construction team will result in sound environmental management.

The following table forms the core of the EMP and have specific reference to the Pre-Construction; Construction and Operational phases. These tables must be used as checklists on site. Compliance with this EMP must be audited regularly during the Pre-construction; Construction and Operational Phases.

PRE-CONSTRUCTION		
Description	**Responsibility**	**Implementation**
The owner must supply an EMP to every contractor on site.	Owner/Developer	Once-off
The owner must act as the Environmental Control Officer and ensure that all contractors comply with the EMP	Owner / ECO Contractor	Duration of phase
Any non-compliance (environmental Incidents) must be recorded and penalties	Owner	Duration of phase

invoked. Reference must be included in the contractor's contracts.		
Correct fencing and pegging of foundations will result in a minimum disturbance of the area.	Owner	Duration of phase
The use of chemical toilets is advised where no form of toilet facility is available. Maintenance is required.	Owner & Contractor	Once-off supply Clean regularly
Execute bulk earthworks for foundation and infill. Compaction has to be done.	Contractor	Once-off
Storage of material (e.g. sand) must not cause water barriers and flooding on the premises	Contractor	Duration of phase
The natural grass and trees of the area must be left intact where required by the owner	Contractor & Owner	Duration of phase
During periods of construction where excessive dust may be generated i.e. bulk delivery, the speed of bulk delivery trucks must be limited in order to minimise dust pollution	Contractor	Duration of phase

CONSTRUCTION PHASE		
Description	**Responsibility**	**Implementation**
Noise: Building operations will be limited during normal daylight hours. (07:00 – 16:30 Mondays to Fridays. Saturdays 07:00 to 13:00) Equipment used such as power tools are to be in good working order to limit any additional noise.	Contractor	Duration of phase
Paper & Plastic rubble from the building site be disposed of by removal from the site to an approved dumping site and may not be burnt.	Contractor	Duration of phase
Bricks & Mortar rubble may be utilised as building fill during the construction phase but may not be dumped or buried on site		Duration of phase
All domestic waste i.e. papers; bottles, tins etc. must be removed from site on a weekly basis to the municipal dumping area. Such waste may not be buried on site. Clear the site daily of any rubble that may be blown around. Remove rubble on a regular basis in order to prevent large volume accumulating.	Contractor	Duration of phase
Excavations for foundations; sewage connections; electrical cables and water reticulation must be clearly marked by means of chevron tape Such areas must be filled and compacted as soon as possible after completion.	Contractor	Duration of phase
All electrical connections must be installed by a qualified electrician. All	Contractor	Duration of phase

installations must be certified as per the building requirements		
Vehicles may not be serviced on the premises. Only emergency repairs and maintenance may be allowed on the premises.	Contractor / Owner	Duration of phase
All service systems are to be installed and designed in accordance with the minimum requirements of and approval of the local municipal authority	Contractor / Owner	Duration of phase
Use existing roads and road areas rather than creating new access roads. Strictly avoid Wetland and natural grass areas.	Contractor	Duration of phase
A designated area –away from any boreholes - should be provided for the washing of equipment at the close of day. Once the construction phase has been completed any cement may be removed from the site and disposed of.	Contractor / Owner	Duration of phase
No disposal of any waste water; paint solvents; oils or any other substance may be disposed of into the storm water drainage. Hazardous substances must be removed from the premises and disposed of as hazardous material i.e. paints tins.	Contractor	Duration of phase
Building activities can have a negative visual impact to other residents of the area. Ensure that all materials are properly and neatly stored. Ensure that the development site is kept neat and tidy. Place refuse containers in a central spot and keep covered to avoid spilling and wind blown refuse. Empty containers regularly. Weekly refuse removal to the municipal dump site	Contractor Owner/Operator	Duration of phase
The French Drain system and/or temporary toilets must be used, maintained and emptied as prescribed.	Contractor/ Owner/Operator	Duration of phase
Water will be supplied from the existing borehole system	Owner	Duration of phase
Eskom supply already exist for the area. Generators should be used responsibly where required.		

OPERATIONAL PHASE		
Description	**Responsibility**	**Implementation**
Rainbow Chicken Farms have a strict policy for the control of disease and maintenance of healthy conditions. This is a broiler facility where the health of poultry is of utmost importance, and daily measures are in place for preventing the spread of disease/illness. No slaughtering of animals will be done on site.	Owner	Duration of phase

Measures that RCF currently supports and implements include: • Should an event occur whereby a disease kills vast amounts of breeding stock, Veterinary Services must be contacted to determine the cause of the illness. The State Vet will advise on the method of disposal to be followed for the dead animals. • Before a new stock is introduced to a coop, the coop should be washed down and disinfested to ensure a healthy and clean environment. • Each chicken run should have a foot bath area at the entrance door that allows for disinfectant to held for the disinfection of shoes before entering the run. Workers must use the showering facilities and wear the approved apparel when entering the coops. • Each chicken run must be maintained on a daily basis. Floors must be kept clean of bird droppings, any dead animals must be removed immediately and water should be cleaned out and freshened daily. • It is important that all runs be regularly cleaned down to ensure that no lice; flies or other insect breed or accumulate in the coops.		

5) CONCLUSION

This EMP must be used as an on-site reference document during the construction phase of the development, and all parties contravening any aspect of the EMP should be held responsible for any rehabilitation that may need to be undertaken. The EMP should be taken as a guideline for the operational phase, following daily acceptable practices to uphold the integrity of the environment.

The project will result in limited negative environmental impacts when every impact of the development be mitigated as per this EMP.

APPENDIX I: OTHER INFORMATION