

destea
department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

(For official use only)

File Reference Number:	
Application Number:	
Date Received:	

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

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 as amended and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **09 August 2022**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent and **EAPASA registered** environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	~~YES~~	NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

Background:
Environmental Management Group (Pty) Ltd was appointed by Chris Erasmus Boerdery (Pty) to act as an independent environmental assessment practitioner to undertake the Basic Assessment (BA) for the proposed development of laying chicken facilities. The BA process is being undertaken in accordance with the requirements of the EIA Regulations of 2014 (as amended), promulgated in terms of the National Environmental Management Act (NEMA: Act No. 107 of 1998).

Location:
The proposed development entails the construction of three houses to house a total of approximately 60 000 laying chickens for the production of eggs on the Farm Goedehoop 180/RE, near Koppies in the Free State Province (27° 20' 8" S, 27° 33' 58" E).

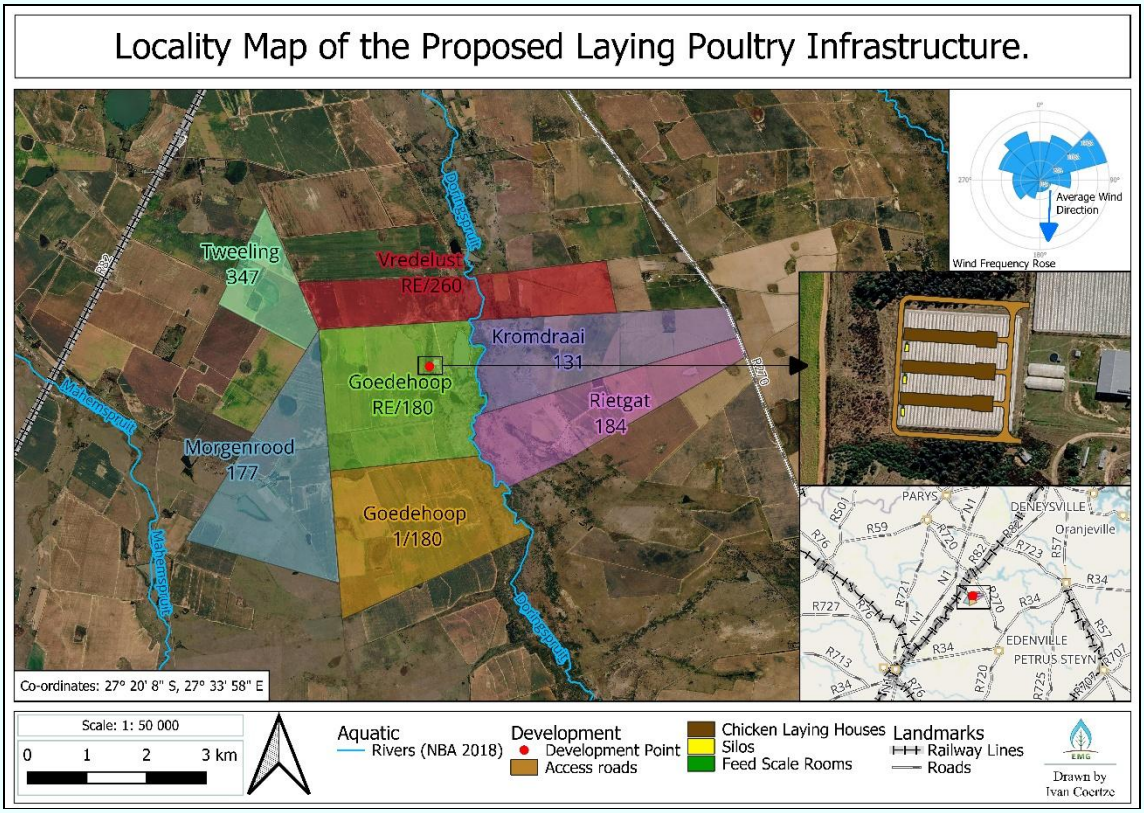


Figure 1: Locality Map of the proposed development.

Additional supporting structures will also be developed including; access roads, silos for chicken feed as well as feed scale rooms (Figure 2). The current land usage entails primarily a field cleared from previous farming practices surrounded by field into which the access roads may cross into (Figure 2). Manure produced from the laying facility will be utilised as fertiliser in crop production. The entirety of the operation is anticipated to be

confined to Goedehoop 180. The manure to be utilised as fertiliser is anticipated to be distributed across approximately 1000 Ha. The proposed storage area will be situated outside of all identified regulated areas, buffers and environmentally sensitive locations (Appendix A).

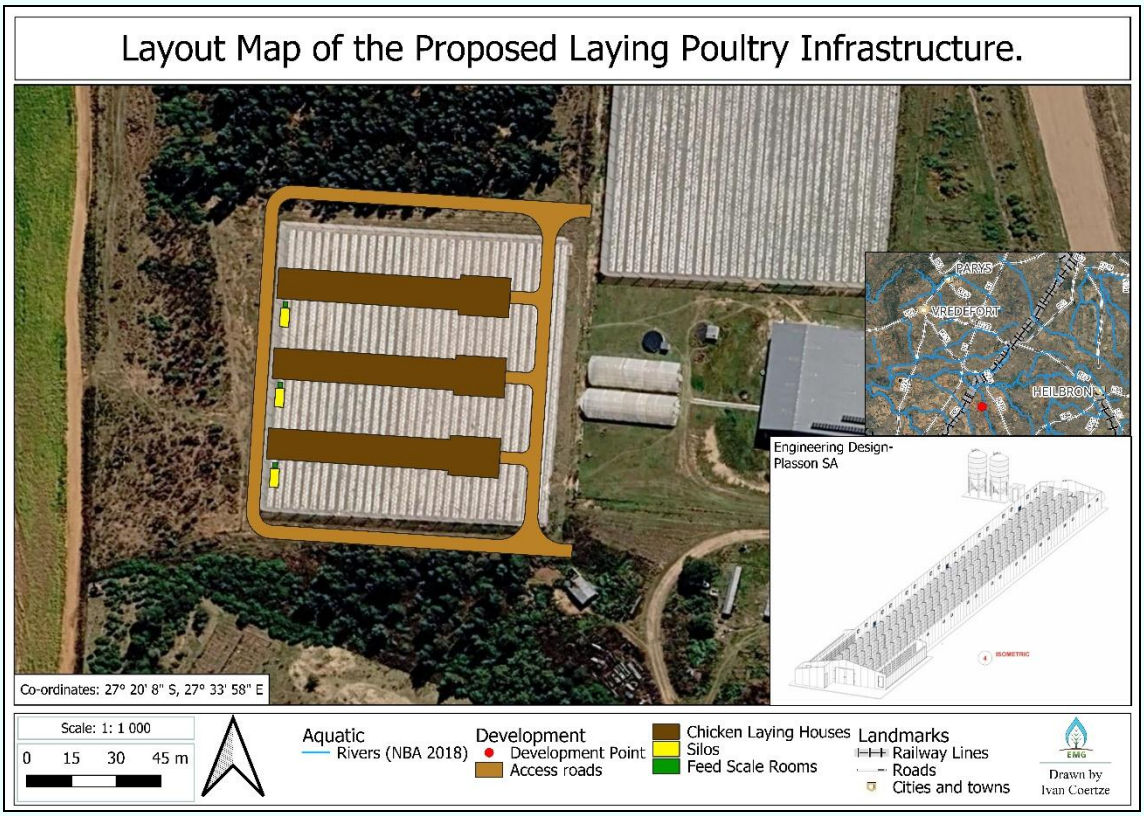


Figure 2: Layout Map of the proposed development.

Repurposing of land space:

The newly proposed laying houses will be strategically placed in an area that was previously utilised for crop cultivation under shaded netting. Repurposing these types of already disturbed areas rather than transforming natural veld areas into productive agricultural output facilities, such as the proposed laying facility, showcases the applicant's vision of low impact farming. The applicant thus proposes to repurpose low productive cultivation areas which have already been heavily infested by alien species of trees used for timber and subsequently cleared during years of cultivation for the new laying facilities.

Operation methodology:

Chickens from about 18 weeks will be introduced to the chicken houses where they will be kept for their entire production lifecycle which will be until they reach 78 weeks of age. Inspections for mortalities will take place on a daily basis. These mortalities will be removed and kept in a cold-room until disposal to the Ivory Game Breeding Farm where they will be consumed by the game. At the end of the production cycle the chickens will be sold and transported to an abattoir to be processed for meat.

During their production lifecycle they will be manually fed a supply of specially formulated chicken feed to optimise egg production and animal health. Chicken feed will be kept in the silos adjacent to the houses before being weighed at the neighbouring feed scale rooms and then supplied to the chickens on a daily basis. A continuous supply of fresh water will be provided to the chickens through nibble drinkers. This will ensure that the cages remain dry to prevent the proliferation of fungi and bacteria.

Manure produced by the chickens will be collected in trays beneath the cages. These will be scraped and cleaned out 2-3 times a week. The manure will be utilised as fertiliser on crops on farms Goedehoop portions RE and 1 (Figure 1). The chicken houses will be completely hosed down with pressure washers and disinfected

paying careful attention to disinfect all surfaces, from the roofs to the floors as well as the feeding apparatus to ensure that no potential pathogens will be transferred between production cycles. Disinfection will take place between production cycles (
+-78 weeks). Biodegradable, eco-benign detergents will be used wherever possible. Runoff from the cleaning operation will be directed to a storage sump, whereafter the water will be utilised as fertiliser in crop production.

Scale of operation:
The operation will entail 60 000 chickens anticipated to be housed in 3 buildings with the dimensions of approximately 84m X 15m. This will amount to approximately 1260m^2. In addition to the surface area of the proposed access road, silos and feed scale rooms, the permanent footprint of the development is entailed to be approximately 6234m^2 or 0.6234 Ha (Table 1).

Table 1: Surface Areas of Development Features.

Unit	m^2 per unit	m^2 total
Feed Scale Rooms (X3)	3	9
Silos (X3)	22	66
Chicken Houses (X3)	1260	3780
Access roads (X1)	2380	2380
	Total SA (m^2)	6234
	Total SA (Ha)	0.6234

In each of the buildings there will be 3 rows of cages stacked 5 cages high. Each row will have a length of approximately 81m with a total of 128 cages. There will thus be 5760 cages (Table 2, Figure 3).

Table 2: Number of cages.

Category	No.	Units
Number of houses	3	units
Rows per house	3	units
Height of rows	5	cages
Length per cages	128	cages
Total number of cages	**5760**	**cages**

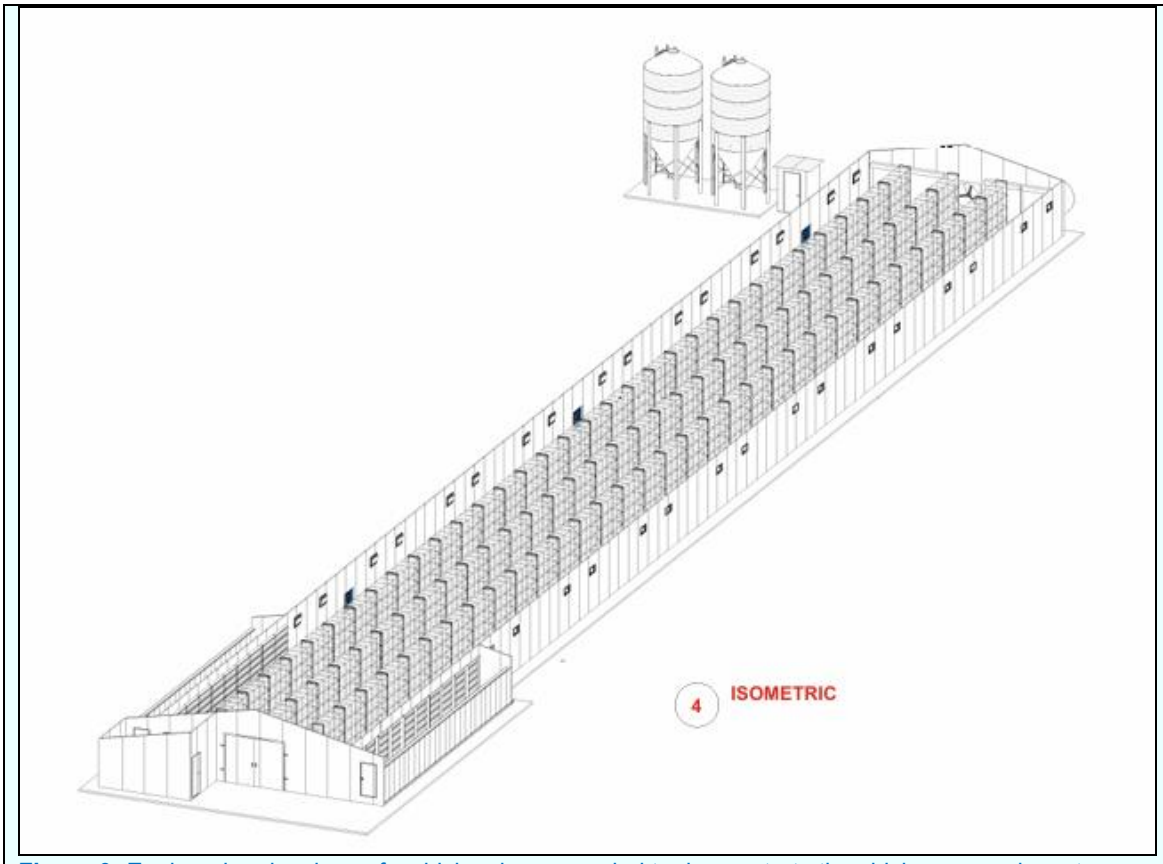


Figure 3: Engineering drawings of a chicken house angled to demonstrate the chicken cages layout.

Each house will have two silos positioned adjacent to it to store the animal feed, each with an 18-ton capacity (Figures 2 and 4). Each house will also have its own allocated feed scale room.

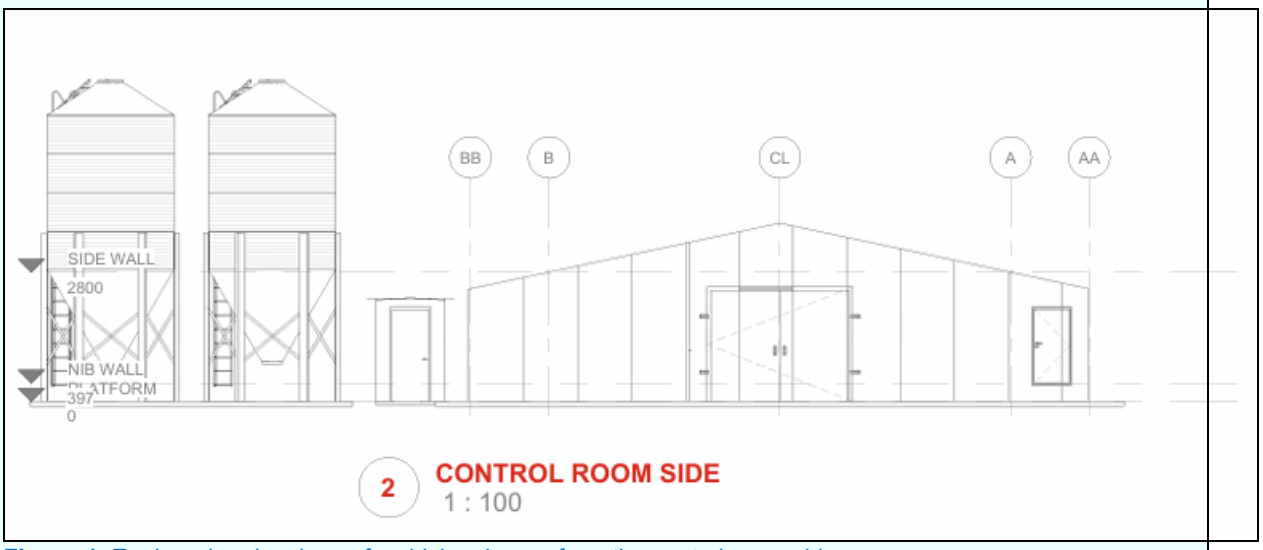


Figure 4: Engineering drawings of a chicken house from the control room side.

Each of the houses will be temperature controlled and ventilated to ensure conditions optimal for production output and animal health using 4 MAGFAN 1 on/off speed-controlled fans as well as one MAGFAN 3 speed-controlled fan.

Three additional wall-mounted 31" fans will be placed in each of the feedlots to further facilitate sufficient ingress of oxygen to the laying chickens while the MAGFANS will facilitate in the active removal of carbon

dioxide.

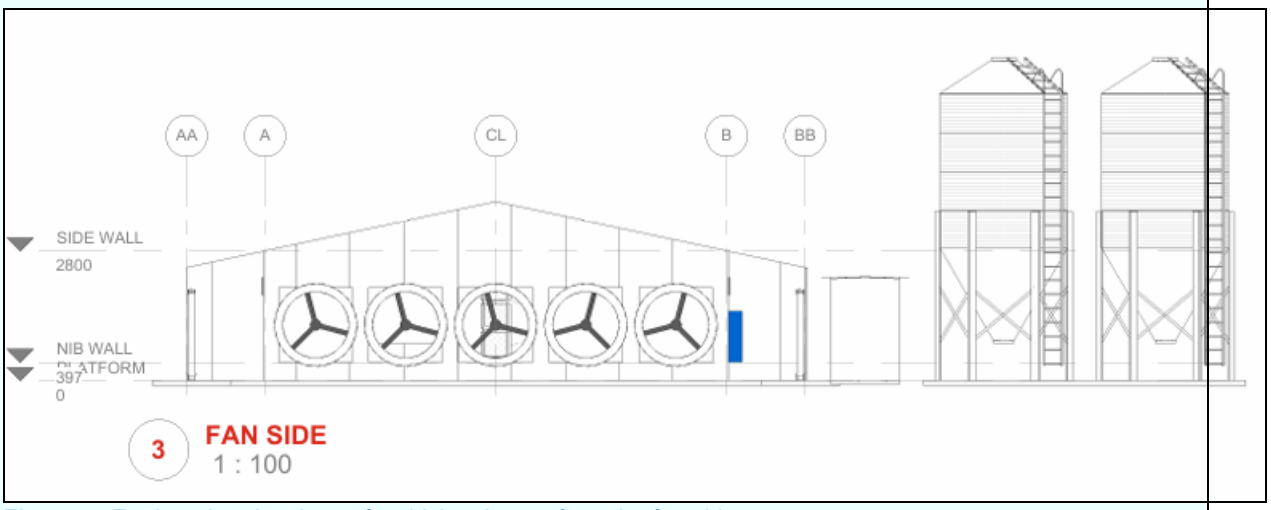


Figure 5: Engineering drawings of a chicken house from the fan side.

Water demand:
Using the following lower and upper thresholds of water use in chickens. The water demand of the laying chickens is estimated to be between 4 320-10 800m^3 per annum (Table 3). A current water use license will be able to accommodate the maximum demand for both drinking and cleaning of the facilities.

Table 3: Water demand per the upper and lower thresholds of water use.

WATER USAGE:					
Basis	**Water per hen (ml per day)**	**Total Qty Layer Hens**	**Total daily use (L per day)**	**Total monthly use (m^3)**	**Total Annual use (m^3)**
Conservative normal use	200	60000	**12 000**	**360**	**4320**
Practical planning average	300	60000	**18 000**	**540**	**6480**
Hot weather allowance	500	60000	**30 000**	**900**	**10800**

Waste production:
Using the following lower and upper thresholds of waste production in chickens. The laying chickens are estimated to produce between 2592 tons and 3456 tons of manure per annum. This amounts to 9.6 tons per day which is less than would require a waste license per Category A section 3(5) of the Listing of Waste Management Activities (GN R 633 in GG 39020) as published in line with section 19(1) and (2) of the National Environmental Management: Waste Act (Act 59 of 2008 as amended). Thus, the manure production will not require a waste license.

Table 4: Upper and lower thresholds of waste anticipated to be produced.

MANURE MANAGEMENT:					
Basis	**Rate (gram / bird)**	**Total QTY Layer Hens**	**Daily Manure Production (tons / day)**	**Monthly Manure Production (tons / month)**	**Annual Manure Production (Tons per year)**
Lower planning estimate	120	60000	**7.2**	**216**	**2592**

Mid-range estimate	140	60000	**8.4**	**252**	**3024**
Higher estimate	160	60000	**9.6**	**288**	**3456**

Concerning the SAPAD area:
The area on which the facility is to be located is on a farm which has a record of farming activity demonstrably going back to before 1955. (Orange line: SAPAD delineation, Red line: Proposed Development Area).



(Image from https://ngigeoportal.dlrrd.gov.za/cdngiportal/ overlaid onto Google Satellite imagery using QGIS).

The area of the proposed development in 1955 was demonstrably covered by what appears to be a timber plantation of *Eucalyptus* (red gum tree: invasive 1b species) (as can be seen by their linear rows, in addition to a site confirmation of the existing trees, noted to have been present uninterrupted since 1955, being alien and invasive species).



Farming on the premises has continued uninterrupted as seen from satellite imagery from 1955 until now.

			
1984	1985	1990	1995
			
1999	2000	2010	2015
			
2020	2022	2023	2024

These trees which dominate this area (and are confirmed to have dominated the area since being introduced sometime prior to 1955) are confirmed by a recent site visit (5 August 2026) to be alien trees and not indigenous vegetation.



Sometime in 2000, the current farm owners and clients had intended to introduce buffalo onto the premises. Accordingly, the area was declared a nature reserve in 2000 which still informs the SAPAD designation as the Goedehoop Nature Reserve.

However, buffalo were never introduced, and the area has never functioned in the capacity as a nature reserve. The area which they wish to develop constitutes an already largely cleared land (with some vegetation in the periphery constituting significantly less than 1 Ha). The sensitivity of the proposed area is assessed in the Site Sensitivity and Terrestrial Ecology Compliance Statement Report in the Basic Assessment Report.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN 327,325 and 324	Description of project activity
Example: ***GN 327 Item xx xx): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.***	***A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river***
Activity 5: GN R 983 as amended by GN R 517. The development and related operation of facilities or infrastructure for the concentration of (ii) more than 5 000 poultry per facility situated outside an urban area, excluding chicks; younger than 20 days;	This project entails the construction of 3 houses which will in total house 60 000 laying chickens. The chickens will be housed for a production period which will take place from approximately 18 weeks until approximately 78 weeks. This is therefore more than 5 000 poultry. Additionally, the location is on Farm Goedehoop 180/RE which is not an urban area. Therefore, the activity triggers.
Activity 12: GN R 985 as amended by GN R 517. The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes	The land use of the farm portion on which the development is proposed to occur comprises of agricultural activities. This can be observed from historical arial imagery and satellite imagery to have taken place uninterrupted from at

undertaken in accordance with a maintenance management plan. (b) Free State (i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (iii) On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or	least 1955.  (From: Image from https://ngigeoportal.dlrrd.gov.za/cdngiportal/ overlaid onto Google Satellite imagery using QGIS) The proposed development will be concentrated largely in an already thoroughly disturbed area of land which has been almost completely cleared of vegetation associated with farming activity, however, the access roads will span into areas immediately adjacent to this comprising of some indigenous vegetation. While the current condition of the field does not reflect the vegetation composition and structure of Vaal-Vet Sandy Grassland (Gh 10), the area is still noted to have naturally been Vaal-Vet Sandy Grassland (Gh 10) (Dayaram, 2018, Mucina and Rutherford, 2006) which is noted be endangered according to the Red List of Terrestrial Ecosystems of South Africa June 2021 (SANBI & DEFF, 2021). Given that more than 300 square meters of vegetation may be cleared, activity 14 will trigger. In 1999 approaching 2000, the landowners planned to have buffalo housed on the farm premises. Accordingly, the farm was registered as the Goedehoop. Nature Reserve (Orange). However, the plan of housing buffalo never came to fruition and agricultural activities continues uninterrupted until the present day. On account of the registration as a nature reserve Farm Goedehoop was registered on the SAPAD system and accordingly constitutes as being zoned for conservation, thus also triggering activity 14.

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

(a) the property on which or location where it is proposed to undertake the activity;

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

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h) of GN 326, Regulation 2014 as amended. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The preferred site is on the location of a previously cleared field used historically for cannabis cultivation. The site while predominantly cleared of all vegetation staddles some areas with vegetation noted to be heavily infested with alien and invasive vegetation.	27° 20' 8"S	27° 33' 58" E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Any alternative locations would entail the clearance of significantly more vegetation or would be located in closer proximity to the watercourse. Accordingly, no alternative locations were considered viable.	N/A	N/A
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	N/A	N/A

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred) • Starting point of the activity	N/A	N/A

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

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

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A of this form.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The layout of the proposed development entails that the three chicken houses laid out in series north-south orientated in a West-Easterly direction with the cooling fans (Magfans 1 and 3) located on the Easterly side. The feed silos will be located on the Western side adjacent to the scale rooms. This orientation will allow maximal ease of access to the silos, optimising transport movement. While posing no inherent additional environmental constraints.	27° 20' 8"S	27° 33' 58" E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
A difference in orientation would not have any environmental benefits and may pose some degree of inhibition to accessibility to infrastructure. Further alternatives were thus not considered.	N/A	N/A
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	N/A	N/A

c) Technology alternatives

Alternative 1 (preferred alternative)
Combination of Magfans 1, 3 and 31" wall fans: Each of the houses will be temperature controlled and ventilated to ensure conditions optimal for production output and animal health using 4 MAGFAN 1 on/off speed-controlled fans as well as one MAGFAN 3 speed-controlled fan (Appendix B). Three additional wall-mounted 31" fans will be placed in each of the feedlots to further facilitate sufficient

ingress of oxygen to the laying chickens while the MAGFANS will facilitate in the active removal of carbon dioxide (Appendix B). The Magfans will have a slow-start system in which when turned on, they come to full rotation speed more gradually than their technological alternatives. This is aimed in part at reducing noise associated with abrupt starts.
Alternative 2
Stainless steel Windmaster™ Industrial Roof Ventilation System: An alternative would be a series of stainless steel Windmaster™ Industrial Roof Ventilators. This would have no discernible environmental advantages over and above the preferred technological alternatives and while possibly contributing towards the removal of carbon dioxide and other fumes, would be significantly impaired if not balanced by sufficient ingress points. This consideration necessitates a design essentially identical to the preferred alternative. Thus, alternative 2 will not be pursued further.
Alternative 3
N/A

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

Alternative 1 (preferred alternative)
N/A
Alternative 2
N/A
Alternative 3
N/A

e) No-go alternative

- Socio-economic benefits directly associated with the construction and maintenance of the proposed development:
  - job creation,
  - skills development,
  - local economic growth will be lost.
- Alternative agricultural activities would be employed in line with the intention and zoning of the land.
- The regions immediately adjacent to the current tilled area would remain intact and not be utilised for access roads (they would not, however, be rehabilitated and would still be predominantly comprise of alien and invasive vegetation).
- The areas between the chicken houses would not be revegetated.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:	**Size of the activity:**
Alternative A1[1] (preferred activity alternative)	13 200 m²
Alternative A2 (if any)	N/Am²
Alternative A3 (if any)	N/Am²

or, for linear activities:

Alternative:	**~~Length of the activity~~:**
Alternative A1 (preferred activity alternative)	N/Am
Alternative A2 (if any)	N/Am
Alternative A3 (if any)	N/Am

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

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	16 200m²
Alternative A2 (if any)	N/Am²
Alternative A3 (if any)	N/Am²

4. SITE ACCESS

Does ready access to the site exist?	**YES**	~~NO~~
If NO, what is the distance over which a new access road will be built	0m	

Describe the type of access road planned:

The site is located on a farm which has readily available access via tarred and gravel roads leading from the N1. No access road will be required to access the site. No additional disturbance is anticipated to be required for the movement of construction vehicles.

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

5. LOCALITY MAP

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

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

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

6. LAYOUT/ROUTE PLAN

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

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS

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

9. FACILITY ILLUSTRATION

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

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	**YES**	~~NO~~	Please explain
The property is a farm being utilised for agriculture. It has functioned in the capacity of such since 1955. In 1999 it was planned to introduce buffalo onto the property, and as such Goedehoop 1 and RE were declared the Goedehoop Nature Reserve. This plan did not, however, come to fruition, and the property has never functioned in the capacity of a nature reserve.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	**YES**	~~NO~~	Please explain
The Free State Growth and Development Strategy (FS PGDS) (which formed the point of departure for the FS PSDF). In the FS PGDS six pillars were identified. Under the pillar of "Inclusive Growth and Sustainable Job Creation" the need to expand and diversify manufacturing opportunities was noted as one of the needed drivers. The PSDF alignment with the PGDS entailed placing focus on Agro-Processing. Furthermore, the proposed development aligns with the FS PSDF directive (used to inform spatial priorities) of **agriculture**. Particularly noted as challenges to the overall performance of the agricultural industry is the absence of essential infrastructure as well as the high cost of fertiliser and other input costs. This development will curtail into the existing farming operations taking place on the same (and adjacent) farm portions of Goedehoop RE and 1.			
(b) Urban edge / Edge of Built environment for the area	**YES**	~~NO~~	Please explain
The proposed development will occur on an already established fenced in privately owned property in a rural area. It will not result in the expansion of an urban edge of a town or city.			

(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	**YES**	~~NO~~	Please explain
In their demarcation of planning of spatial planning categories, the Ngwathe LM in their Integrated Development plan identified 'Agricultural Areas' as being a spatial planning category, further noting elsewhere that the agricultural sector of certain areas in the district is: "extremely prominent and contributes largely to the Gross Geographic Product". To this end agricultural output is a substantial contributor to the district's (and subsequently province's) gross geographic output. Furthermore, one of their strategic goals is "to promote social and economic development" and one of their key performance areas is "local economic development". Considering that these are noted as two focus areas (one a strategic goal and the other a key performance area) by the Ngwathe LM, and that agriculture is noted to be a chief contributor to the local economy (which also comports with the observation in the NDP that agriculture is a primary economic activity in rural areas) support of local agricultural ventures definitely aligns with the Ngwathe IDP.			
(d) Approved Structure Plan of the Municipality	YES	**NO**	Please explain
The Ngwathe LM does not have a structure plan; however the proposed activity aligns with the National Plans (NDP 2030), the Provincial Plans (FS PGDS and FS PSDF) as well as the Local Municipalities Plans (Ngwathe IDP).			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	**YES**	NO	Please explain
The Proposed development aligns with the Ngwathe EMF's Agricultural desired state of environment: "To **promote** the **long-term sustainable** use and **conservation** of **natural agricultural resources** and the protection and preservation of **agricultural land** and its **productive use** in the **Ngwathe LM**, in order to **ensure long-term national** and **household food safety** and **security** and **profitable agricultural economic output**". It does this by its proposed layout occurring on degraded land, while maximising agricultural output within the footprint of the proposed area.			
(f) Any other Plans (e.g. Guide Plan)	**YES**	~~NO~~	Please explain
The Free State Growth and Development Strategy (FS PGDS) (which formed the point of departure for the FS PSDF). In the FS PGDS six pillars were identified. Under the pillar of "Inclusive Growth and Sustainable Job Creation" the need to expand and diversify manufacturing opportunities was noted as one of the needed drivers. The PSDF alignment with the PGDS entailed placing focus on Agro-Processing. The proposed development will also be in line with the EMPr (appendix G) as per Section 24N of NEMA (Act No. 107 of 1998).			

3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	~~YES~~	**NO**	Please explain
Agricultural growth was not singled out as a priority in the Ngwathe Integrated Development Plan (IDP) for the ward in which the proposed development is situated, however, the agricultural significance of the area as well as its contribution to the functioning of the municipality is particularly noted in the IDP. As the development will be a private development there are no time frames which the development is expected to abide by.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	**YES**	NO	Please explain
Yes. Given the socioeconomic character of Ngwathe LM, as discussed in section 8(a), with a current unemployment rate of approximately 35.0%, job creation remains a pressing concern. Both the construction and operational phases of the proposed development will facilitate towards this end in providing short term employment for construction workers and long-term employment for the constant feeding, cleaning and monitoring required. Jobs will also be stimulated secondarily such as through the employment of vets and builders for structural maintenance of the facilities and access roads.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	**YES**	NO	Please explain
The proposed development will take place on an already established and operating farm complete with facilities and amenities for staff. Should it become vital to supplement hygiene facilities during the heightened work force associated with construction, a private portable toilet service provider will be utilised. The proposed development will furthermore entail minimal utilisation of resources and building materials comprising of a relatively small footprint (0.6234Ha) and can be adequately absorbed in the general operation of the farm.			

6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	~~YES~~	**NO**	Please explain
While in line with the Ngwathe LM's Strategic Goals and Key Performance Areas, the particular development is not provided for in the infrastructure planning of the municipality. However, the anticipated development will be funded by the applicant who is also the landowner of the proposed development, and no additional municipal services or resources is anticipated to be required for the proposed development. On account of this, the proposed development is not anticipated to have any detrimental implication for the infrastructure planning if the municipality and will, as mentioned, align with its broader objectives.			
7. Is this project part of a national programme to address an issue of national concern or importance?	**YES**	~~NO~~	Please explain
This project will contribute to agricultural output and job creation which are both in line with the National Development Plan (NDP 2030). This project is not, however one of the Strategic Integrated Projects (SIPs).			
8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	**YES**	~~NO~~	Please explain
The proposed development is proposed to take place in an area thoroughly disturbed by prior agricultural activities including tilling. The area finds itself in a broader context of being located on an active farm. As the proposed development entails the promotion of an agricultural activity (animal production), this location is favoured being in line with the broader functioning of the farm while minimising disturbance by being preferentially located in a historically disturbed area. Furthermore, the waste produced by the proposed activity will be able to be incorporated into the broader operation of the farm entailing minimal transportation and risks associated therewith.			
9. Is the development **the best practicable environmental option for this land/site?**	**YES**	~~NO~~	Please explain
In addition to the proposed development not entailing additional significant environmental degradation given the historical land use activities, constructing the new proposed development will also lead to partial rehabilitation of the area through the revegetation of the open areas in between the chicken houses which will no longer be tilled as per the status quo. This will facilitate water penetration, limit runoff and erosion, as well as ton minimise dust from movement of vehicle and construction workers.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	**YES**	~~NO~~	Please explain
The benefits of the proposed development will entail the partial rehabilitation of the areas between the chicken houses. Accordingly, the proposed development will constitute an improvement on the status quo. Furthermore, the economic benefits of the development will entail increased agricultural output as well as increased job creation during both the construction and operational phase.			

11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	~~YES~~	**NO**	Please explain
The motivation of the activity is driven not by precedent but rather by a combination of market research and environmental factors which makes the operation of the proposed theoretically feasible. Similar factors are more likely to be drivers of development than precedent per se. Maximally, some property owners might be alerted to the feasibility of the operation, however, given that the community to whom the project is advertised is well versed in the agricultural potential of the area, the proposed development is unlikely to be the driver of similar future developments.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	~~YES~~	**NO**	Please explain
The proposed development is anticipated to have a small footprint (0.6234Ha), entailing minimal disturbance to vegetation and as such environmental resources. The proposed development is not anticipated to generate any significant runoff either during the construction or the operation of the facilities and is thus not likely to result in the contamination of the adjacent watercourse (see section B5).			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	~~YES~~	**NO**	Please explain
The proposed development will occur on an already established fenced in privately owned property in a rural area. It will not result in the expansion of an urban edge.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	~~YES~~	**NO**	Please explain
The proposed development will not directly contribute to one of the 17 SIPs.			
15. What will the benefits be to society in general and to the local communities?			Please explain
The benefits to society in general will include the increased production of food (primarily in the form of eggs and secondarily chicken), the increased economic growth associated with an increase in gross geographic output. Furthermore, job creation is anticipated with both the construction and operation of the proposed development. The stimulation of the supply chain of activities associated with the continual maintenance and operation of the facilities would also be beneficial to the local community and economy.			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
There is no other pertinent desirability considerations related to the proposed development not already considered and discussed in this section 10 of the BAR, or in the Impact Assessment (Appendix F). The major desirability considerations are related to the posed environmental risk (as explained to be low) and the risks associated with the socio-economic implications (which are considered to be net benefit given the promise of employment opportunities) weighed against the benefit of cessation of the proposed development area's degradation and its partial rehabilitation. As elucidated in discussion of the no-go option in the impact assessment (Appendix F) There are net positive implications associated with the proposed development and accordingly the development is argued to go forth.			

17. How does the project fit into the National Development Plan for 2030?	Please explain
Employment: Noted in National Development Plan for 2030, it is a national imperative the economy to be transformed through enhancement of human capital, productive capacity and infrastructure to raise exports. The agricultural sector is earmarked as a sector in which South Africa has a comparable advantage to other countries, which should be leveraged to facilitate economic growth and transformation. This proposed development entailing the increase in agricultural production will entail just that. It will furthermore, facilitate employment opportunities and the development of an expanded skill base, which are also aligned with the National Development Plan (NDP, 2030).	

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

According to Section 23 of NEMA, 1998, the following should be considered:

The general objective of integrated environmental management is to –

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

The following was considered according to Section 23 of NEMA, 1998:

- The EIA process for listed activities is being followed.
- An application for environmental authorisation was submitted to the Department of Agriculture, Rural Development and Environmental Affairs (DARDEA)
- Baseline and specialist assessments were undertaken for the compilation of the Draft Basic Assessment Report (BAR) which includes the potential impacts identified during the assessments.
- The draft reports are being submitted to the competent authorities for inspection and approval or amendments.
- The Final Basic Assessment Report (BAR) which includes the potential impacts identified during the assessments and additional comments and concerns from I&AP's will be compiled and submitted to the competent authorities for review.

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.
An application for environmental authorisation is made to the DESTEA as stated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998). The needed environmental authorisation is being applied for, and the relevant specialists have been appointed for any possible environmental impact that the project might pose. The relevant specialists in accordance with this project are as follows: • terrestrial ecologist (Site Sensitivity and Terrestrial Ecology Compliance Statement Report) • heritage specialist (Heritage Impact Assessment) and an Implementing the guidelines set by the Environmental Management Program (EMPr), as required by the NEMA, wherein any disturbance to the environment should be minimised where they cannot be altogether avoided and subsequently remedied which was informed in part by the mitigation measures and protocols proposed by the consulted specialists. A public participation process will be undertaken, in which the I&APs will be allowed to register and comment on the Draft BAR. The principles of environmental management, as set out in Section 2 of NEMA, have been taken into account through the following means. • There will be no loss of endangered or protected biological diversity. • Pollution will be minimised where it cannot be altogether avoided. • Rehabilitation measures will be in place. • Disturbance of the environment is reduced through strategic planning of development site • The accessibility to the site will prevent excessive degradation associated with the creation of access routes. The needs of the local community have been thoroughly considered and placed at the forefront of the proposed development.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
The Constitution of South Africa Act, 1996 (Act No. 108 of 1996).	The proponent must ensure that the proposed development's construction or operation does not contravene the Constitution. The proponent should comply with the Constitution by providing that no pollution or ecological degradation occurs due to the proposed development and by conducting environmentally sustainable developmental practices. The Environmental	Minister for Justice and Constitutional Development	1996

	Management Plan stipulates strict mitigation measures to mitigate and prevent possible pollution incidents.		
National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998)	This Act, which outlines principles for decision-making on subjects affecting the environment, is the cornerstone of Environmental Governance in South Africa. It requires environmental authorisation for some listed activities, such as the development of structures associated with a certain density of housed large stock units (in this case cattle. Activities have been identified that will be triggered, hence, the application for Environmental Authorisation for the proposed development.	Department of Agriculture Rural Development and Environmental Affairs (DARDEA).	1998
NEMA Environmental Impact Assessment (EIA) Regulations	These regulations stipulate the procedures for conducting EIAs, which include processes for assessment and public participation. The regulations categorise activities into Listing Notices that determine the level of assessment required. For the proposed development, activities listed in Listing Notice 1 have been triggered. Therefore, a Basic Assessment Process will be followed to obtain Environmental Authorisation.	Department of Agriculture Rural Development and Environmental Affairs.	1998
The National Water Act, 1998 (Act No. 36 of 1998).	The proposed development activities will trigger licensing in terms of the National Water Act, 1998. An application for a Section 21(A), (E), (F), (G), (C) and (I) must be submitted to the Department of Water and Sanitation with regards to the affected watercourses.	Department of Water and Sanitation. Vaal Orange Catchment Management Agency (VOCMA)	1998
The National Heritage Resources Act (Act No. 25 of 1999).	It is a legal requirement of this Act that a Heritage Impact Assessment be conducted.	South African Heritage Resources Agency (SAHRA)	1999
National Environmental Management Biodiversity Act (Act 10 of 2004)	Section 52 of NEMBA, empowers the minister to publish a national list of ecosystems that are threatened and in need of protection. This list includes endangered ecosystems such as the Vaal Vet Sandy Grassland.	Department of Agriculture Rural Development and Environmental Affairs (DARDEA)	2004

National Environmental Management Protected Areas Act (Act 57 of 2003)	The National Environmental Management Protected Areas Act allows for the declaration of Nature Reserves under section 23, while section 24 provides for the withdrawal of a declaration or exclusion of part of a nature reserve. As the project falls within the Goedehoop Nature Reserve (please see project description) these two sections may become applicable to the proposed development should it become necessary to withdraw the declaration of the Goedehoop Nature Reserve.	Department of Agriculture Rural Development and Environmental Affairs (DARDEA)	2003

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES**	~~NO~~
If YES, what estimated quantity will be produced per month?	<1m^3	

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

While some construction waste may be produced in the form of left over materials and excess hardened concrete, this is anticipated to be minimal. The construction material will be collected on site in an allocated area before being disposed of from site.

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

The construction material will be driven by truck to a local landfill facility licensed to handle general waste.

Will the activity produce solid waste during its operational phase?	**YES**	NO
If YES, what estimated quantity will be produced per month?	~216-288m^3	

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

It should be noted that the masses for the chicken manure were calculated using maximal manure production values as well as maximal water content. Once water begins to evaporate from the chicken manure it will reduce its density as well as its overall mass.
Per standard industry convention, the manure from each of the chicken houses will be scraped from the cages every two days, before being stored in a temporary stockpiling area. The manure will be utilised for the fertilisation of crops an annual basis on farms Goedehoop 180/1 and Goedhoop 180/2.

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

N/A

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

From the stockpiling location, the chicken manure will be utilised as fertiliser once a year on farms Goedehoop 180/1 and Goedehoop 180/RE. This implicates an area of crops comprising of approximately 1000Ha.

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

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	~~YES~~	**NO**

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

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

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	~~YES~~	**NO**
If YES, what estimated quantity will be produced per month?		**1-5m^3**
Will the activity produce any effluent that will be treated and/or disposed of on site?	**YES**	~~NO~~

If YES, the applicant should consult with the 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**

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:**	N/A
E-mail:	N/A	**Fax:**	N/A

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

Construction phase: Minimal wastewater is anticipated to be produced during the construction of the development. The only wastewater that is anticipated to be produced during the construction of the development is in the cleaning of equipment used in the mixing of cement. This wastewater can be collected and subsequently utilised in mixing cement in preparing concrete. This leaves only the final last volume of water at the final cleaning of the equipment used for mixing cement. This volume of water can be collected and stored for a day. This will allow for the cement to settle to the bottom allowing to decant the clear water from the cementitious sludge. The water should then be able to be safely disposed of in a municipal system while the remaining cementitious sludge can be allowed to dry out before being disposed of as solid waste.

Operational Phase:
While minimal wastewater is anticipated to be utilised by the facility. Wastewater will be collected following the cleaning regiment between production cycles. This wastewater will be rich in nutrients from the manure of the chickens. This effluent will also be utilised to fertilise crops on farm Goedehoop 180 portions 1 and RE.

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	~~YES~~	**NO**
If YES, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO**

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If NO, describe the emissions in terms of type and concentration:

The activity is not anticipated to the produce any emissions in addition to exhaust emissions and dust.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	~~YES~~	**NO**

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	YES	~~NO~~
If YES, is it controlled by any legislation of any sphere of government?	YES	~~NO~~

Describe the noise in terms of type and level:

The noise associated with the construction of the proposed development will entail noise generated by construction vehicles as well as construction workers. The noise is not expected to be excessive and will be mitigated by limiting construction hours to between 07:00 and 17:00 as stated in the EMPr, which takes not only legislative construction hours demands into consideration but also the local context.
The legislation that will be applicable to the generation of noise is the National Building Regulations and Building Standards Act (NO. 103 of 1977) states: F6 (2)(a). No person shall during the course of any building, demolition or excavation work use any machine, machinery, engine, apparatus, tool or contrivance, which in the opinion of the local authority may unreasonably disturb or interfere with the amenity of the neighbourhood:

(i) on a public holiday or Sunday
(ii) before 06:00 or after 17:00 on any Saturday; and

before 06:00 or after 18:00 on any day other than those days contemplated in subparagraphs (i) and (ii).

13. WATER USE

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

~~Municipal~~	~~Water board~~	~~Groundwater~~	**River, stream, dam or lake**	~~Other~~	~~The activity will not use water~~

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	4320- 10 800 litres	
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	~~YES~~	**NO**

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

14. ENERGY EFFICIENCY

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

It has been incorporated into the EMPr that "Energy efficient equipment must be used as far as possible and not allowed to run for longer durations than is required by the activity." Furthermore, solar panels will be installed on the roofs of the feedlot 'houses' which will contribute towards the energy usage of the operations of the mil farm.

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

Alternative energy sources have not been integrated into the design as the project is anticipated to be small with minimal energy expenditure.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

Section B Copy No. (e.g. A): **N/A**

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

3. Has a specialist been consulted to assist with the completion of this section? ~~YES~~ **NO**

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Free State
District Municipality	Fezile Dabi DM
Local Municipality	Ngwathe LM
Ward Number(s)	8
Farm name and number	Goedehoop 180
Portion number	RE
SG Code	F01900000000018000000

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

The land is currently being utilised as a farm. However, the area does fall within the Goedehoop Nature Reserve. Please see Impact Statement (Appendix F) as well as the project description (Section A.1).

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

Is a change of land-use or a consent use application required? ~~YES~~ **NO**

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

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

Alternative S2 (if any):

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

Alternative S3 (if any):

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

2. LOCATION IN LANDSCAPE

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

~~2.1 Ridgeline~~		~~2.4 Closed valley~~		2.7 Undulating plain / low hills	X
~~2.2 Plateau~~		~~2.5 Open valley~~		~~2.8 Dune~~	
~~2.3 Side slope of hill/mountain~~		2.6 Plain	X	~~2.9 Seafront~~	
~~2.10 At sea~~					

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dolomite, sinkhole or doline areas	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Seasonally wet soils (often close to water bodies)	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Unstable rocky slopes or steep slopes with loose soil	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dispersive soils (soils that dissolve in water)	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Soils with high clay content (clay fraction more than 40%)	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Any other unstable soil or geological feature	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
An area sensitive to erosion	~~YES~~	NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~

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

4. GROUNDCOVER

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

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

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

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	**YES**	~~NO~~	~~UNSURE~~
Non-Perennial River	**YES**	~~NO~~	~~UNSURE~~
Permanent Wetland	~~YES~~	**NO**	~~UNSURE~~
Seasonal Wetland	~~YES~~	**NO**	~~UNSURE~~
Artificial Wetland	~~YES~~	**NO**	~~UNSURE~~
Estuarine / Lagoonal wetland	~~YES~~	**NO**	~~UNSURE~~

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

The proposed development does not occur in relevantly close proximity to any watercourses, the closest being a farm dam which has been created by damming an ephemeral river, marked per the DWS 50k data to occur naturally **approximately 525m from the proposed development**, with an evidently artificial embankment (as observed by the clear boundaries, surrounding compaction of soils) and raised profiles compared to the surrounding area of the embankment. This nearest edge of this dam is located 300m from the nearest point of the proposed development.



Figure 1: Natural wetlands associated with drainage lines and perennial rivers for reference.



Figure 2: The artificial dam located approximately 300m from the closest edge of the proposed development.

Further located between the proposed development and the artificial dam is a runway, as well as the artificial embankment on the Western side of the dam.

The nearest perennial river occurs approximately 730m away, on the Eastern side of the farm dam, while the nearest wetland occurs approximately 860m from the proposed development.

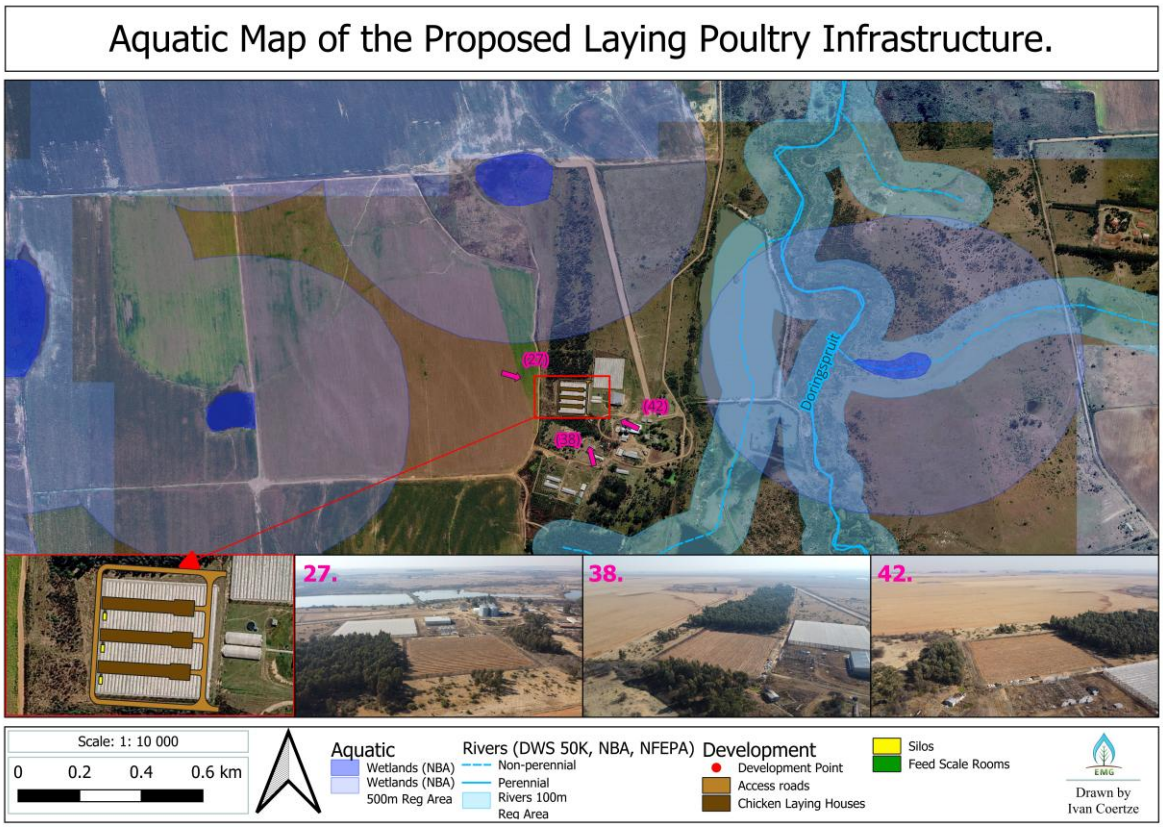


Figure 1: Aquatic Map of the Proposed Laying Poultry Infrastructure (also included in Appendix A).

6. LAND USE CHARACTER OF SURROUNDING AREA

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

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station [H]
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential[A]	Church	**Agriculture**
Retail commercial & warehousing	Old age home	**River, stream or wetland**
Light industrial	Sewage treatment plant[A]	**Nature conservation area**
Medium industrial [AN]	Train station or shunting yard [N]	Mountain, koppie or ridge
Heavy industrial [AN]	Railway line [N]	Museum
Power station	Major road (4 lanes or more) [N]	Historical building
Office/consulting room	Airport [N]	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam[A]	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

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

N/A

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

N/A

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

N/A

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

Critical Biodiversity Area (as per provincial conservation plan)	~~YES~~	**NO**
Core area of a protected area?	~~YES~~	**NO**
Buffer area of a protected area?	~~YES~~	**NO**
Planned expansion area of an existing protected area?	~~YES~~	**NO**
Existing offset area associated with a previous Environmental Authorisation?	~~YES~~	**NO**
Buffer area of the SKA?	~~YES~~	**NO**

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	~~YES~~	**NO**
	~~Uncertain~~	
N/A		

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

A heritage specialist was contacted to assess the palaeontological and archaeological sensitivity of the area contextualised by the condition of the in-situ environment. It was found that given the degree of historical disturbance in addition to the geomorphological setting that the proposed development would pose a low risk to palaeontological features and a very low/negligible risk to archaeological features. **Consequently, the heritage specialist argued against the necessity of further palaeontological and archaeological impact assessment provided that a chance finds protocol be implemented.**

Will any building or structure older than 60 years be affected in any way?	~~YES~~	**NO**

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	~~YES~~	NO

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

The most recent statistics reported on in the 2021-2026 Integrated Development Plan comes from STATSA, Census in which of the 39 190 people in the survey that 25 376 were employed and 13 814 were unemployed which corresponds to a 35.0% unemployment rate.

Table 1: Distribution of population by employment status and unemployment rate: Ngwathe LM, 1996, 2001 and 2011.

	Employed	Unemployed	Unemployment rate
1996	26313	13335	33.6
2001	22064	19643	47.1
2011	25376	13814	35.0

Source: STATSSA, Census 1996, 2001 and 2011

Economic profile of local municipality:

While there is no definitive breakdown of investment per sector, however the following are identified as the main economic sectors in the Ngwathe Integrated Development Plan:

- **Agriculture**
- Mining
- Manufacturing
- Service

Furthermore, it is noted on the Ngwathe Municipal Website (https://www.ngwathe.fs.gov.za) that agriculture is a prominent sector in each of the identified regions in the Ngwathe LM namely: Parys, Vredefort, Heilbron, **Koppies** and Edenville.

Level of education:

The 2011 STATSA, Census data was reported in the 2021-2026 Integrated Development Plan as follows:

Table 2: Distribution of population by age/gender/education levels: Ngwathe LM, 1996, 2001 and 2011.

	1996		2001		2011	
	Male	Female	Male	Female	Male	Female
No schooling	4680	6247	5066	6839	2657	3531
Some primary	7132	8709	7250	8783	5820	7910
Completed primary	2356	3019	2259	2812	1696	2172
Some secondary	10083	11779	9617	11385	11780	13338
Grade 12 / Std. 10	3780	4153	5329	5803	9148	9586
Higher	1699	1698	1763	1877	2202	2440

Source: STATSSA, Census 1996, 2001 and 2011,

The most recent observed census data as recorded during the 2022 South African Census as reported on by wazimap.co.za as the following (figure recreated using data from Wazimap.co.za):

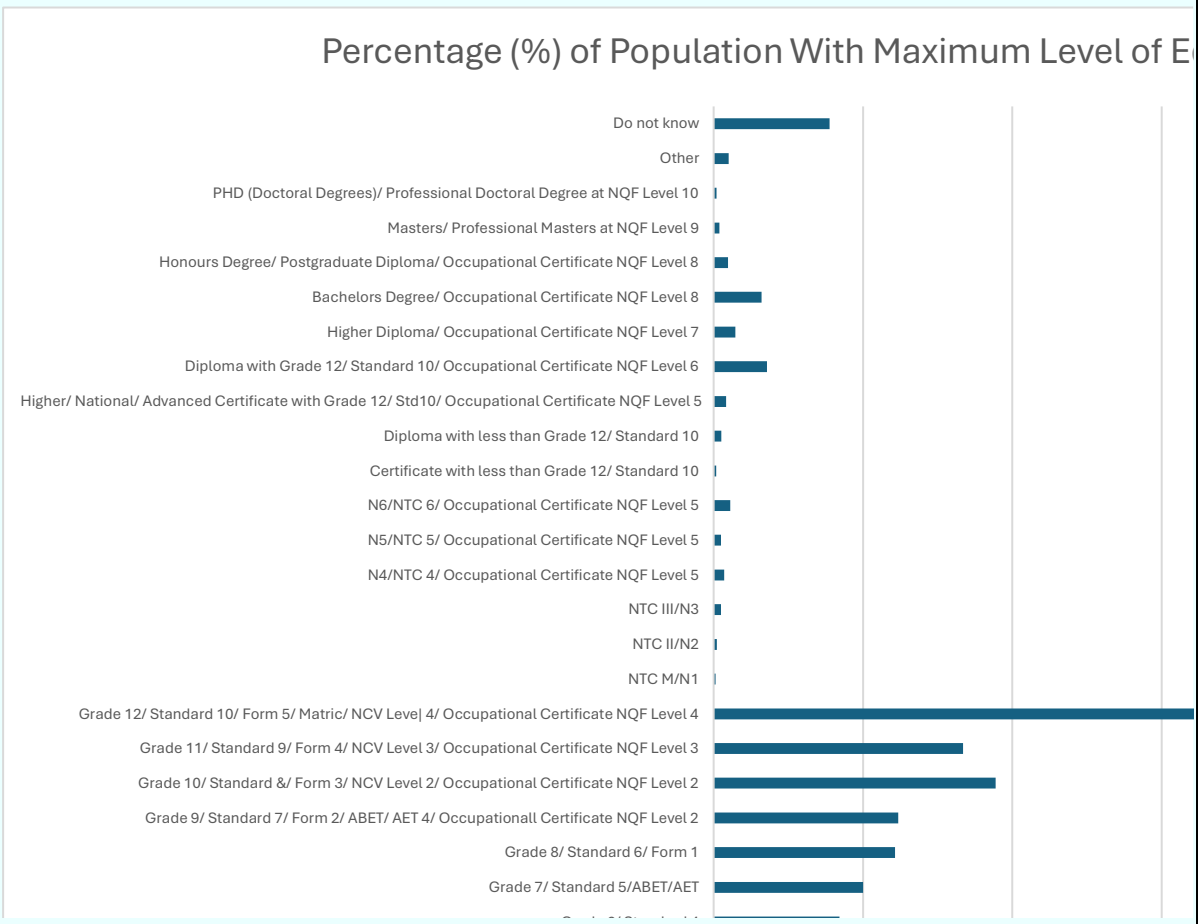


Figure 2: Percentage of the population of Ngwathe LM per highest level of education.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 2-6 million	
What is the expected yearly income that will be generated by or as a result of the activity?	R 1-1.5 million	
Will the activity contribute to service infrastructure?	~~YES~~	NO
Is the activity a public amenity?	~~YES~~	NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	20	
What is the expected value of the employment opportunities during the development and construction phase?	R300 000-R500 000	

What percentage of this will accrue to previously disadvantaged individuals?	90%
How many permanent new employment opportunities will be created during the operational phase of the activity?	4
What is the expected current value of the employment opportunities during the first 10 years?	R2.5 million
What percentage of this will accrue to previously disadvantaged individuals?	75-100%

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				**If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan**
~~Critical Biodiversity Area (CBA)~~	~~Ecological Support Area (ESA)~~	~~Other Natural Area (ONA)~~	**No Natural Area Remaining (NNR)**	~~N/A~~

b) Indicate and describe the habitat condition on site

Habitat Condition	**Percentage of habitat condition class (adding up to 100%)**	**Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).**
Natural	0%	N/A
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	N/A
Degraded (includes areas heavily invaded by alien plants)	100%	It is stated in the site sensitivity ad terrestrial ecology compliance statement report that *"Roughly 100% of the site has been disturbed through previous agricultural land use practices. The proposed development area is devoid of indigenous vegetation. The vegetation composition of*

		the surrounding area is lacking in respect to its original form of the Vaal-vet Sandy Grassland (Gh 10) vegetation type, with species diversity consisting mostly of alien and invasive species, naturalised alien species and some heavily disturbed indigenous species" (Giddy, 2026).
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	0%	N/A

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		**Aquatic Ecosystems**						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	~~Critical~~ **Endangered** ~~Vulnerable~~ ~~Least Threatened~~	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
		~~YES~~	**NO***	~~UNSURE~~	~~YES~~	**NO**	~~YES~~	**NO**

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The original vegetation type of the proposed development area is the Vaal-Vet Sandy grassland (Gh 10).

Per Mucina and Rutherford (2006), this area is characterised as having the following species of vegetation present:

- Grassland dominated by *Anthephora pubescens*, *Aristida congesta*, *Chloris virgata*, *Cymbopogon caesius*, *Cynodon dactylon*, *Digitaria argyrograpta*, *Elionurus muticus*, *Eragrostis chloromelas*, *E. lehmanniana*, *E. plana*, *E. trichophora*, *Heteropogon contortus*, *Panicum gilvum*, *Setaria sphacelata*, *Themeda triandra* and *Tragus berteronianus*.
- The dominant herb within the vegetation type is *Stachys spathulate*.

Per the Red List of Terrestrial Ecosystems of South Africa (SANBI and DEFF, 2021, in Giddy, 2026), this vegetation unit constitutes a conservation status of Vulnerable (EN). According to the Free State Bioregional plan, however, the area is noted to be degraded.

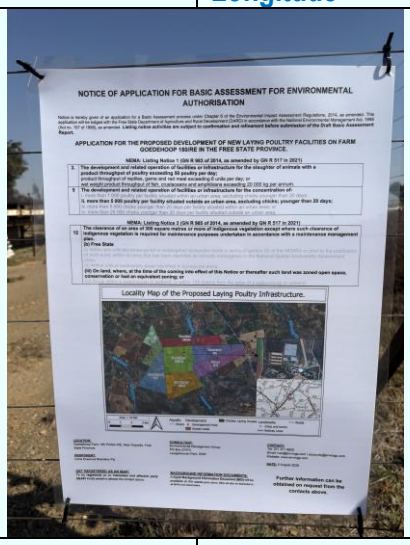
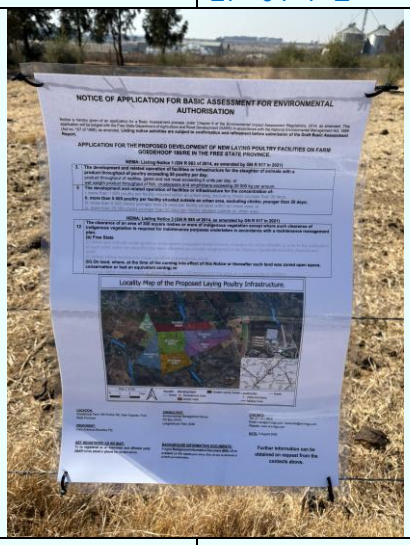
The site sensitivity and terrestrial compliance statement report found the area to be degraded and in poor ecological condition with little to no natural habitat remaining and not reflective of the natural vegetation type.



Figure 3: General conditions as observed from the Eastern side of the development (west facing).

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Parys Gazette	
Date published	3 September 2026	
Site notice position	**Latitude**	**Longitude**
		
	27° 20' 10" S	27° 34' 4" E
		
	27° 20' 9" S	27° 33' 54" E

		
	27° 18' 0" S	27° 31' 29" E
		
	27° 20' 32" S	27° 30' 43" E
Date placed	5 August 2026	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 326

Please see Appendix E for full Public Participation Report.

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 326

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
As this is a Draft BAR more I&APs may still be forthcoming who will be included in the final BAR after being given a 30-day commenting period initiated after submission of the DBAR.		
Mr Dirk Serfontein	Neighbour	lucserf@compuking.co.za
Mr Hennie Le Roux	Neighbour	hennie@impactcivils.co.za

Mr Johan Oosthuisen	Neighbour	hanre64@gmail.com

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
No preliminary issues or concerns have been raised. In the incidence that any issues or concerns are forthcoming, these will be added and addressed in the Final Basic Assessment Report.	

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Ngwathe Local Municipality: Municipal Manager	Dr. FP. Mothamaha Me M. Makibinyane	056 816 2700	N/A	mmadmin@ngwathe.co.za magautal@ ngwathe.co.za commserv@ngwathe.co.za	Liebenberg Street, Parys, 9585
Ngwathe: LM Townplanner	Dr S. Dintsi	056 816 2700	N/A	dintsis@ngwathe.co.za	Liebenberg Street, Parys, 9585
Fezile Dabi District Municipality Executive Mayor	Cllr Dennis Khasudi Ms Dudu Makhanda	016 970 8615	N/A	mayorsec@feziledabi.gov.za	John Vorster Road, SASOLBURG
Department of Agriculture, Rural Development and Environmental	Mr Gerald Modise	082 307 1550	N/A	gerald.modise@dard.gov.za	Gielie Joubert Street, Glen College, Bloemfontein,

Affairs: Office Manager to the MEC					South Africa
Ward counsellor	Council has been dissolved as such there is no current acting ward counsellor.				
Department of Water and Sanitation: Specific Project Region Enquiries	Kelebogile Saha	051 405 9105	N/A	sahak@dws.gov.za	Sanlam Plaza, East Burger Street, Bloemfontein Central, Bloemfontein, 9301
Vaal-Orange management Catchment Agency	Ntsika Mtembu	064 086 5593	N/A	MtembuN@dws.gov.za	Sanlam Plaza, East Burger Street, Bloemfontein Central, Bloemfontein, 9301 (VOCMA is still establishing physical offices)
South African Heritage Resources Agency	(Draft BAR will be placed online)	021 462 4502	N/A	(Draft BAR will be placed online)	111 Harrington St, District Six, Cape Town, 8001
Department of Forestry, Fisheries and the Environment	Mr Qaphela Ndabankulu Sydney Nkosi	012 399 9065	N/A	qndabankulu@dffe.gov.za shnkosi@dffe.gov.za	Environment House, Cnr. Steve Biko (previously Beatrix Street) and Soutpansberg Road, 473 Steve Biko, Arcadia, Pretoria, 0083 South Africa

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 as amended and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

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

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Habitat Loss	***Direct impacts:*** Loss of vegetation	Low	• Habitat disturbance and vegetation clearance should be restricted to the authorised area. • Cleared indigenous vegetation should be mulched for use in rehabilitation. • Topsoil should not be accidentally mixed with waste or other contaminants. • Cleared alien and invasive vegetation should be burned within a controlled area (such as a metal drum) or removed from site and taken to a registered waste facility. • Any vegetation cleared in excess of the footprint which is to be permanently disturbed should be reinstated. • Plant growth should be encouraged in between chicken houses (albeit kept short to prevent establishment of pests). • Access roads would be established and
	Indirect impacts: Loss of habitat and species diversity as a result of construction activities and the removal natural elements.	Low	
	Cumulative impacts: The permanent degradation of habitat leading to impaired ecological functioning and environmental services.	Low	

Activity	Impact summary	Significance	Proposed mitigation
			maintained during the operational phase.
Loss of Nationally Protected Flora	***Direct impacts:*** The loss of protected species as a result of the proposed development.	Low	• Habitat disturbance and vegetation clearance should be restricted to the authorised area. • Cleared indigenous vegetation should be mulched for use in rehabilitation. • Any vegetation cleared in excess of the footprint which is to be permanently disturbed should be reinstated. • Plant growth should be encouraged in between chicken houses (albeit kept short to prevent establishment of pests). • Access roads would be established and maintained during the operational phase.
	Indirect impacts: Secondary decline in potential host specific pollinators. Altered ecosystem dynamics.	Low	
	Cumulative impacts: The loss of biodiversity leading to impaired ecosystems resilience.	Low	
Alien Invasive Species	***Direct impacts:*** The introduction and proliferation of alien and invasive vegetation.	Low	• All barren/unvegetated spaces cleared for use, which also includes the creation of topsoil stockpiles, should be kept clear of vegetation (i.e. alien invasive species). • An alien and invasive management plan should be drafted and implemented. • Alien and invasive species monitoring and eradication must take place quarterly and continue for the first year after construction. • Cleared alien and invasive vegetation should be burned within a controlled area (such as a metal drum) or removed from site and taken to a registered waste facility.
	Indirect impacts: The decline in indigenous vegetation due to being outcompeted by alien and invasive vegetation.	Low	
	Cumulative impacts: The irreversible alteration of the localised (and imminently surrounding) environment due to alien and invasive vegetation outcompeting indigenous vegetation.	Low	
Archaeological Significance	***Direct impacts:*** Destruction of artefacts of archaeological significance.	Low-negligible	The implementation of a chance finds protocol.
	Indirect impacts:	N/A	

Activity	Impact summary	Significance	Proposed mitigation
	No indirect impacts are envisioned.		
	Cumulative impacts: The uncovering, disturbance or damaging of archaeological artefacts leading to destruction of resources of heritage concern.	Low-negligible	
Palaeontological Significance	***Direct impacts:*** Destruction of artefacts of palaeontological significance.	Low	The implementation of a chance finds protocol.
	Indirect impacts: No indirect impacts are envisioned.	N/A	
	Cumulative impacts: The uncovering, disturbance or damaging of palaeontological artefacts leading to destruction of resources of heritage concern.	Low	
Surface Water Quality	***Direct impacts:*** The degradation of water quality of adjacent watercourses. Introduction of nitrate rich runoff into waterbodies.	Low	• Ensure that concrete preparation is contained on tarps. • Cementitious water from concrete production must be collected and reused in concrete preparation. • Water from cleaning the chicken houses must be contained and strategically utilised for either fertilisation outside of all regulated areas or for composting activities thereby ensuring that the nutrient cycling of the operation is as contained as possible. • Chicken manure must be disposed of responsibly, either through fertilisation (ensuring that concentrations are utilised such that nitrates can be suitably absorbed) or through sale and removal from site.
	Indirect impacts: The deterioration of ecosystem dynamics in water bodies.	Low-medium	
	Cumulative impacts: The runoff entering adjacent watercourses before concentrating in slow moving water courses leading to eutrophication.	Low-medium	
Ground water Quality	***Direct impacts:*** Infiltration of pollutants into the water table.	Low	• Ensure that concrete preparation is contained on tarps. • Cementitious water from concrete production must be collected and reused in concrete preparation. • Ensuring that the water
	Indirect impacts: Degradation of environmental services	Low	
	Cumulative impacts: The contamination and degradation	Low-medium	

Activity	Impact summary	Significance	Proposed mitigation
	of ground water which will by the nature of aquifers entail that pollutants will be captured in the soil and take many years to work out of the aquifer through natural means entailing the long-term degradation of an environmental resource.		from cleaning is diluted and spread out suitably that all nutrients in the water will be absorbed by vegetation and not become concentrated in the soil and seep into the water table.
Construction of Infrastructure and Operational Footprint	***Direct impacts:*** Degradation of the aesthetic value of the area due to construction activities and the erection of permanent infrastructure.	Low	• Construction debris should be removed regularly and not allowed to pile up. • A designated construction waste area should be placed. • All domestic waste and construction debris should be removed to a registered waste landfill site. • Native trees can be planted around the chicken laying facility to obscure direct visual impact. • All operational activities should strictly be concentrated to the proposed development area. • Rehabilitation of all open spaces after construction.
	Indirect impacts: No indirect impacts are envisioned.	N/A	
	Cumulative impacts: Reduced aesthetic value of the area on account of permanent infrastructure.	Low	
Air quality and noise from vibrations	***Direct impacts:*** Mobilization of equipment, land clearing and earthworks. Odour generation due to the concentration of livestock and compositing chicken manure. Continual vibrations caused by ventilating fans.	Low-medium	• Watering bare surfaces and excavations to promote dust suppression if found to be required. • Introduction of probiotics in livestock feed and drinking water to accelerate the organic compound breakdown and limit fly population. • Manure stockpiles may not stand unutilised for more than four months. • The chicken houses should be placed downwind from the populated areas.
	Indirect impacts: N/A	N/A	
	Cumulative impacts: The degradation of air quality leading to reduced living conditions and long-term potential detrimental health impacts for both fauna, workers and residents.	Low	
General Solid Waste	***Direct impacts:*** Pollution in the environment from general solid waste.	Low	• Reduce, reuse and recycle strategy needs to be implemented.

Activity	Impact summary	Significance	Proposed mitigation
	Detrimental impacts associated with fauna and flora interacting with litter and pollutants.		• Waste receptacles must be made available, and all waste shall be adequately stored and removed. • Volatile waste should be appropriately discarded in bins with lids. • Waste should be regularly removed from the site.
	Indirect impacts: Deterioration of pollutants into harmful substances (e.g. microplastics).	Low	
	Cumulative impacts: The accumulation of general waste and litter leading to the deterioration of the aesthetic quality of the area. Detrimental health impacts on wild flora and fauna that interact with the waste (ingestion, getting limbs caught etc.).	Low	
Organic waste	***Direct impacts:*** Contamination of land and watercourses.	Medium	• It must be ensured that there is sufficient capacity by the municipal services to absorb the waste generated by the construction workers. • Construction workers must use either a toilet connected to the municipal sewer reticulations system or make use of a portable toilet service provider. • A fertilisation plan needs to be drafted in which the extent and concentration of chicken manure should be worked out to ensure that there is not concentration of nitrates leading to conditions unfavourable for vegetation growth, or that may leach into surface or groundwater sources. • The stockpiling should be strategically chosen to be located outside of all environmentally sensitive areas, drainage areas, maximise wind exposure, and minimise chances of erosion.
	Indirect impacts: Proliferation of pathogens and subsequent spread of disease.	Low	
	Cumulative impacts: The concentration of nitrates in soil and waterbodies leading to effects such as altered ecological functioning, impaired soil fertility and eutrophication.	Medium	
Socio-economic	***Direct impacts:*** Dissatisfaction in the recruitment and procurement processes.	Low-negligible	• Transparent fair recruitment and procurement practices.

Activity	Impact summary	Significance	Proposed mitigation
	Indirect impacts: Reputational damage. ***Cumulative impacts:*** Broader societal rejection of the proposed development leading to appeals against the development, potential other legal action. Reputational damage leading to the rejection of the products that will be produced by the proposed development.	Low-negligible Low-negligible	The contractor chosen should maximize the involvement of local communities in construction and support activities, to the extent possible, based on available skill levels. • Whenever possible, training programmes that will benefit both construction stage skills requirements and long-term employment demand should be developed. • Each worker should be required to abide by a Code of Conduct to ensure that the operationality of the facilities remain ethical and do not cause unnecessary societal upset and fallout therefrom.
Alternative 2			
	Direct impacts: N/A		
	Indirect impacts: N/A		
	Cumulative impacts: N/A		
	Direct impacts: N/A		
	Indirect impacts: N/A		
	Cumulative impacts: N/A		
Alternative 3			
	Direct impacts: N/A		
	Indirect impacts: N/A		
	Cumulative impacts: N/A		
	Direct impacts: N/A		
	Indirect impacts: N/A		

Activity	Impact summary	Significance	Proposed mitigation
	Cumulative impacts: N/A		
No-go option			
Not proceeding with the development.	***Direct impacts:*** The continuation of the status quo which entails the continuation of farming practises in the area proposed to be developed. The no-go option would not necessarily entail the rehabilitation of the proposed development area.	Low-medium	**Proceed with the proposed development.**
	Indirect impacts: The areas between the proposed chicken houses will not be revegetated. Alien and invasive colonisation of the barren areas in the development area. These will eventually likely be outcompeted by indigenous vegetation, however, given tilling activities on the farm it does risk creating the conditions for the uncontrolled proliferation of alien and invasive vegetation which would require expensive and elaborate active intervention to curb.	Medium	
	Cumulative impacts: The socio-economic losses associated with the proposed development not producing food produce nor stimulating the supply chain through the goods and services required as part of the operation.	Medium	

A complete impact assessment in terms of Regulation 19(3) of GN 326 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

The potential impacts of the proposed development after the mitigation have been implemented are predominantly concentrated in terms of residual risk in the instance of emergency events and the permanent nature of the development which necessarily entails that the permanent footprint will not be rehabilitated in the foreseeable future.

- Concerning the permanence of the structure:

Realistically in a status quo scenario, the proposed development area is unlikely to be completely rehabilitated should the proposed development not continue. The historical tillage of the area would also make the area particularly susceptible to alien infestation. The permanent structures do still have areas between them where recolonisation of natural grasses can be encouraged. Thus, while the permanence of the structures may entail great environmental degradation compared to a pristine alternative, in this context it may contribute to microhabitat restoration.

- Concerning the emergency events:

Given that emergency events are by their nature often a cumulation of multiple factors, ascribing a realistic probability has significant limitations. The most probable events, however, are:

  - contagions such as bird flu which may if poorly handled lead to secondary environmental impacts (improper disposal of carcasses, improper disposal of cleaning water etc.).
  - residual risk of alien and invasive vegetation proliferation in adjacent fields on account of species introduced during the construction phase.
  - altered ecological functioning on account of pest infestations.

In effect the residual risks are largely associated with ensuring strategic operation in which risks are identified early on and actively mitigated. All of the risks foreseen will have almost immediate consequences to the operation and will be incentivised to correct early on. The risks are thus anticipated to be immediate but entirely reversible.

Alternative B

N/A

Alternative C

N/A

No-go alternative (compulsory)

- Socio-economic benefits directly associated with the construction and maintenance of the proposed development:
  - job creation,
  - skills development,
  - local economic growth will be lost.
- Alternative agricultural activities would be employed in line with the intention and zoning of the land.
- The regions immediately adjacent to the current tilled area would remain intact and not be utilised for access roads (they would not, however, be rehabilitated and would still be predominantly comprise of alien and invasive vegetation).
- The areas between the chicken houses would not be revegetated.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES	~~NO~~

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

N/A

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

- Refer to the EMPr (Appendix G) for a complete list of mitigation measures.
- Alien and invasive vegetation must be cleared from the development area, quarter-yearly up until 1 year after completion of the development to prevent against an outbreak. This is particularly necessary given the agricultural context of the development in which surrounding areas are frequently tilled and especially susceptible to colonisation by alien and invasive vegetation.
- Manure must be spread out during fertilisation and should not be deposited in too concentrated an area. The full expanse of the agricultural land should where possible be utilised to cycle between fertilisation events, outside of all regulated areas as identified in the sensitivity map (appendix A of the BAR). Should any indicators of excessive concentration of Nitrates become evident, fertilisation should immediately cease in the area and corrective measures taken.
- Absolutely no waste or water containing waste may take place may be disposed of in any of the regulated areas or watercourses (Appendix A of the BAR).
- Mortalities must be removed from site and may not be buried or burnt on site.
- Contingency plans should be implemented to have a methodology ready for the unfortunate possibility of mass fatality in the incidence of contagions. The plan should detail safe means of disposal which will not result in further spread of illness or disease, should this be the cause of the mass fatalities.
- Pest traps should be routinely inspected for white-tailed rats (*Mystromys albicaudatus*). In the incidence that white tailed rats are noted veterinarians should be contacted to assist with finding alternative means of pest controls which will not endanger the local population of *M. albicaudatus*.

Is an EMPr attached? | YES | ~~NO~~

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

_____

NAME OF EAP

_____ _____

SIGNATURE OF EAP DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information