



**Client
Project**

ASTRAL FOODS LTD.
VLAKFONTEIN BREEDER FARM EXPANSION
BASIC ASSESSMENT REPORT

Date

MAY 2022

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VLAKFONTEIN BREEDER FARM EXPANSION

Basic Assessment Report

EIA Ref No. To be confirmed upon submission of Application to the Competent Authority

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BASIC ASSESSMENT APPROACH

Legal Requirements and Legislative Process

As part of the proposed project, certain listed activities may be triggered which is defined under the National Environmental Management Act, Act No. 107 of 1998 (NEMA, 1998), as amended, and the regulations there under will take place.

Relevant listed activities triggered by the proposed development is discussed under Section 5.2 of this Report.

It is the intention of the Basic Assessment Report (BAR) to provide the necessary information pertaining to the proposed project and its associated activities, as required in terms of the Environmental Impact Assessment Regulations, 2014, as amended (EIA Regulations in terms of Chapter 4 of NEMA, 1998) under NEMA, 1998, as amended.

This BAR intends to highlight all information relevant to the proposed mixed use development.

The diagram below provides a visual representation of the Basic Assessment approach followed in terms of NEMA, 1998, as amended, and the Environmental Impact Assessment Regulations, 2014, as amended.

	Schedule	Process	Steps Followed
P H A S E 1	Specialist Studies (25 Days)	<ul style="list-style-type: none"> Specialist Studies 	<ul style="list-style-type: none"> Specialist Site Visits Specialist Report Compilation
	Draft BAR Compilation: (38 Days)	<ul style="list-style-type: none"> Impact Assessment and Mitigation measures Draft BA Report 	<ul style="list-style-type: none"> Compilation of Draft Basic Assessment Report
P H A S E 2	Public Participation Process (PPP)_ Registration of I&APs: (32 Days)	<ul style="list-style-type: none"> Background Information Document; Newspaper Advertisement; Site Notice Boards; and Registration of Interested & Affected Parties (I&AP). 	<ul style="list-style-type: none"> Background Information Document distributed to all I&APs and relevant stakeholders. Letters to inform I&APs and Stakeholders of the availability of the Draft BA Report for public and Stakeholder comment. Newspaper Advertisement placed within the Beeld Newspaper. Site Notice Boards placed along the proposed project site boundary. Registered post and electronic notifications. I&APs and Stakeholder comments recorded.
	Public Participation Process (PPP)_ Draft BAR Review and Commenting: (34 Days)	<ul style="list-style-type: none"> Draft BAR Commenting 	<ul style="list-style-type: none"> Availability of Draft Basic Assessment Report. I&APs and Stakeholder comments recorded. Continued consultation with local authorities and communication to I&APs.
	Application and Draft BAR submission to DEDECT (Competent Authority): (1 Day)	<ul style="list-style-type: none"> EIA Application Form Draft BA Report and EMP 	<ul style="list-style-type: none"> Submission of application form and obtaining a reference number. Submission of Draft BAR and EMP for commenting.
	Final BAR Compilation: (34 Days)	<ul style="list-style-type: none"> Final BA Report compilation 	<ul style="list-style-type: none"> Incorporation of comments and issues from I&AP and Stakeholders into BA Report.

	Schedule	Process	Steps Followed
P H A S E 2	Final BAR submission to DEDECT: (1Day)	<ul style="list-style-type: none"> • EIA Application Form • Final BA Report 	<ul style="list-style-type: none"> • Submission of application form and obtaining Project reference number. • Final BAR Report submission to DEDECT.
P H A S E 3	Authorities Decision Result: (107 Days)	<ul style="list-style-type: none"> • Authorities Decision Making Stage - 107 days from Final BAR submission. 	<ul style="list-style-type: none"> • Notify I&APs and Stakeholders of government authority's decision on the Environmental Authorisation Application within 14 days (2 Weeks).

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DEFINITIONS

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 the-

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

Application

An application for an Environmental Authorisation (EA).

Basic Assessment Report

A report contemplated in regulation 21 of the EIA Regulations, 2014.

Biodiversity Plan

A spatial plan that identifies one or more categories of biodiversity priority areas, using the principles and methods of systematic biodiversity planning.

Buffer Area

Unless specifically defined, means an area extending 10 kilometres from the proclaimed boundary of a world heritage site or national park and 5 kilometres from the proclaimed boundary of a nature reserve, respectively, or that defined as such for a biosphere.

Building and Demolition Waste

Means waste, excluding hazardous waste, produced during the construction, alteration, repair or demolition of any structure, and includes rubble, earth, rock and wood displaced during that construction, alteration, repair or demolition [NEM:WA, Act No 59 of 2008].

Critical Biodiversity Areas

Terrestrial and aquatic areas required to meet biodiversity targets for ecosystems, species or ecological processes, as identified in a systematic biodiversity plan.

Cumulative Impact

In relation to an activity, means the past, current and reasonably foreseeable future impact of an activity, considered together with the impact of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities.

Dangerous Good

Goods containing any of the substances as contemplated in South African National Standard No. 10234, supplement 2008 1.00: designated "List of classification and labelling of chemicals in accordance with the Globally Harmonized Systems (GHS)" published by Standards South Africa, and where the presence of such goods, regardless of quantity, in

a blend or mixture, causes such blend or mixture to have one or more of the characteristics listed in the Hazard Statements in section 4.2.3, namely physical hazards, health hazards or environmental hazards.

Development

The building, erection, construction or establishment of a facility, structure or infrastructure, including associated earthworks or borrow pits, that is necessary for the undertaking of a listed or specified activity, including any associated post development monitoring, but excludes any modification, alteration or expansion of such a facility, structure or infrastructure, including associated earthworks or borrow pits, and excluding the redevelopment of the same facility in the same location, with the same capacity and footprint.

Development footprint

Any evidence of physical alteration as a result of the undertaking of any activity.

EAP

An environmental assessment practitioner as defined in section 1 of NEMA.

Ecological corridors

Ecological corridors, also referred to as biodiversity corridors, can be landscape structures of various size, shape and habitat composition that maintain, establish or re-establish natural landscape connectivity. They can have a continuous or interrupted structure or a structure of stepping stones (Jongman *et. al.*, 2002).

Ecological Support Areas

Terrestrial and aquatic areas that are not essential for meeting biodiversity targets, but play an important role in supporting the ecological functioning of one or more Critical Biodiversity Areas, or in delivering ecosystem services.

EMPr

An environmental management programme contemplated in regulations 19 and 23 of the EIA Regulations, 2014.

Environment

The surroundings (biophysical, social and economic) within which humans exist and that are made up of:

- (i) the land, water and atmosphere of the earth;
- (ii) micro-organisms, plant and animal life;
- (iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and
- (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

Environmental Impact

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services.

Environmental Impact Assessment

A systematic process of identifying, assessing and reporting environmental impacts associated with an activity and includes Basic Assessment and Scoping and Environmental Impact Reporting.

General Waste

Means waste that does not pose immediate hazard or threat to health or to the environment, and includes:

- a) domestic waste;
- b) building and demolition waste;

- c) business waste; and
- d) inert waste [NEM:WA, Act No 59 of 2008].

Hazardous Waste

Means any waste that contains organic or inorganic elements compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have detrimental impact on health and the environment [NEM:WA, Act No 59 of 2008].

Independent

In relation to an EAP, a specialist or the person responsible for the preparation of an environmental audit report, means-

- a) that such EAP, specialist or person has no business, financial, personal or other interest in the activity or application in respect of which that EAP, specialist or person is appointed in terms of the EIA Regulations; or
- b) that there are no circumstances that may compromise the objectivity of that EAP, specialist or person in performing such work;

excluding -

- (i) normal remuneration for a specialist permanently employed by the EAP; or
- (ii) fair remuneration for work performed in connection with that activity, application or environmental audit.

Indigenous Vegetation

Vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding ten years.

Land Use

The various ways in which land may be employed or occupied. Planners compile, classify, study and analyse land use data for many purposes, including the identification of trends, the forecasting of space and infrastructure requirements, the provision of adequate land area for necessary types of land use, and the development or revision of comprehensive plans and land use regulations.

Mitigation

To anticipate and prevent negative impacts and risks, then to minimise them, rehabilitate or repair impacts to the extent feasible.

Phased Activities

An activity that is developed in phases over time on the same or adjacent properties to create a single or linked entity.

Pollution Prevention

Any activity that reduces or eliminates pollutants prior to recycling, treatment, control or disposal.

Present Ecological State (PES)

The PES of a river is expressed in terms of various components. That is, drivers (physico-chemical, geomorphology, hydrology) and biological responses (fish, riparian vegetation and aquatic invertebrates), as well as an integrated state, the EcoStatus.

Public Participation Process

A process of involving the public in order to identify needs, address concerns, to contribute to more informed decision making relating to a proposed project, programme or development.

Registered Interested and Affected Party

In relation to an application, means an Interested and Affected Party whose name is recorded in the register opened for that application in terms of regulation 42 of the EIA Regulations, 2014.

Significant Impact

An impact that may have a notable effect on one or more aspects of the environment or may result in non-compliance with accepted environmental quality standards, thresholds or targets and is determined through rating the positive and negative effects of an impact on the environment based on criteria such as duration, magnitude, intensity and probability of occurrence.

Specialist

A person that is generally recognised within the scientific community as having the capability of undertaking, in conformance with generally recognised scientific principles, specialist studies or preparing specialist reports, including due diligence studies and socio-economic studies.

Systematic Biodiversity Plan

A plan that identifies important areas for biodiversity conservation, taking into account biodiversity patterns (i.e. the principle of representation) and the ecological and evolutionary processes that sustain them (i.e. the principle of persistence). A systematic biodiversity plan must set quantitative targets/thresholds for aquatic and terrestrial biodiversity features in order to conserve a representative sample of biodiversity pattern and ecological processes.

Topography

Topography, a term in geography, refers to the "lay of the land" or the physio-geographic characteristics of land in terms of elevation, slope and orientation.

Vegetation

All of the plant life growing in and characterizing a specific area or region; the combination of different plant communities found there.

Waste

Waste is unwanted or undesired material left over after the completion of a process. "Waste" is a human concept: in natural processes there is no waste, only inert end products.

Watercourse

- (a) a river or spring;
 - (b) a natural channel in which water flows regularly or intermittently;
 - (c) a wetland, pan, lake or dam into which, or from which, water flows; and
- any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse as defined in the National Water Act, 1998 (Act No. 36 of 1998); and
a reference to a watercourse includes, where relevant, its bed and banks.

Wetland

Land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

ABBREVIATIONS

BAR	-	Basic Assessment Report
BID	-	Background Information Document
CBA	-	Critical Biodiversity Area
CRR	-	Comments and Response Report
DWA	-	Department of Water Affairs
DWS	-	Department of Water and Sanitation
EA	-	Environmental Authorisation
EAP	-	Environmental Assessment Practitioner
ECA	-	Environmental Conservation Act of 1989
EIA	-	Environmental Impact Assessment
EIR	-	Environmental Impact Report
EMF	-	Environmental Management Framework
EMP	-	Environmental Management Programme
ESA	-	Ecological Support Area
GN	-	Government Notice
Ha	-	Hectare
I&AP	-	Interested and Affected Party
IWULA	-	Integrated Water Use Licence Application
NEMA	-	National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended
NEM:WA	-	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), as amended
NHRA	-	National Heritage Resources Act, 1999 (Act No. 25 of 1999), as amended
NWA	-	National Water Act, 1998 (Act No. 36 of 1998)
NWDEDECT	-	North West Department of Economic Development, Environment, Conservation and Tourism
PA	-	Protected Area
R	-	Regulation
SAHRA	-	South African Heritage Resources Agency
SANS	-	South African National Standards
SAWIC	-	South African Waste Information Centre

1. PROJECT TITLE

Vlakfontein Breeder Farm Expansion.

2. APPLICANT DETAILS

Applicant Name	ASTRAL Foods Ltd.
Contact Person	Hannes Uys
Postal Address	18 Industry Road, Olifantsfontein, 1665
Telephone Number	017 720 0219
Cell phone Number	072 284 6448
Email Address	Hannes.Uys@astralfoods.com

3. ENVIRONMENTAL ASSESSMENT PRACTITIONER DETAILS

Environmental Assessment Practitioner Company	Labesh (Pty) Ltd
Contact Person	Lourens de Villiers
Postal Address	Postnet Box 469, Private Bag X504, Sinoville, 0129
Telephone Number	082 789 6525
Email Address	info@labesh.co.za
Qualifications	B.Sc Earth Science (North West University) Hons B.Sc Geography and Environmental Studies (North West University) M.Sc Water Resource Management (University of Pretoria)
Relevant experience	20 years experience conducting Environmental Impact Assessment processes

The EAP's Company Details are attached to this report under Appendix E.

4. LOCATION OF THE PROPOSED DEVELOPMENT AND ACTIVITIES

The property for the proposed development and its associated activities is as follows:

Property/Land Parcel	21 digit Surveyor General Code	Property size (Hectares)
Remainder of Portion 6 of the Farm Bokfontein 385 JQ	T0JQ00000000038500006	± 12Ha
Portion 35 of the Farm Bokfontein 385 JQ	T0JQ00000000038500035	± 60Ha
Portion 3 of the Farm Bokfontein 385 JQ	T0JQ00000000038500003	± 41Ha
Remainder of Portion 33 of the Farm Bokfontein 385 JQ	T0JQ00000000038500033	± 51Ha
Portion 39 of the Farm Bokfontein 385 JQ	T0JQ00000000038500039	± 22Ha
Portion 34 of the Farm Bokfontein 385 JQ	T0JQ00000000038500034	± 64Ha
Remainder of Portion 9 of the Farm Bokfontein 385 JQ	T0JQ00000000038500009	± 65Ha
Portion 32 of the Farm Hartbeesfontein 38 IQ	T0IQ0000000003800032	± 33Ha
Total Area Size		± 348Ha

The project location is approximately 58km east, south-east of Koster, in the Rustenburg Local Municipality of the Bojanala District Municipality, North West Province. The GPS coordinates for the project site are as follows:

Centre Point (Latitude; Longitude):

26° 0'7.63"S; 27°25'17.51"E

Farm Boundary (Latitude; Longitude):

25°59'29.84"S; 27°24'14.11"E

25°59'29.15"S; 27°25'0.44"E

26° 0'24.76"S; 27°25'58.48"E

26° 0'16.96"S; 27°26'0.08"E

26° 0'25.76"S; 27°26'8.56"E

26° 0'33.46"S; 27°25'57.49"E

26° 0'58.63"S; 27°25'49.49"E

26° 0'58.79"S; 27°26'0.95"E

26° 1'20.99"S; 27°25'58.25"E

26° 1'20.93"S; 27°25'55.56"E

26° 1'5.69"S; 27°25'53.15"E

26° 0'36.00"S; 27°25'23.09"E

26° 0'41.69"S; 27°25'20.29"E

26° 0'37.53"S; 27°24'57.57"E

26° 0'12.87"S; 27°24'59.52"E

A locality map, provided on the next page, shows the location of the project property, at an appropriate scale.

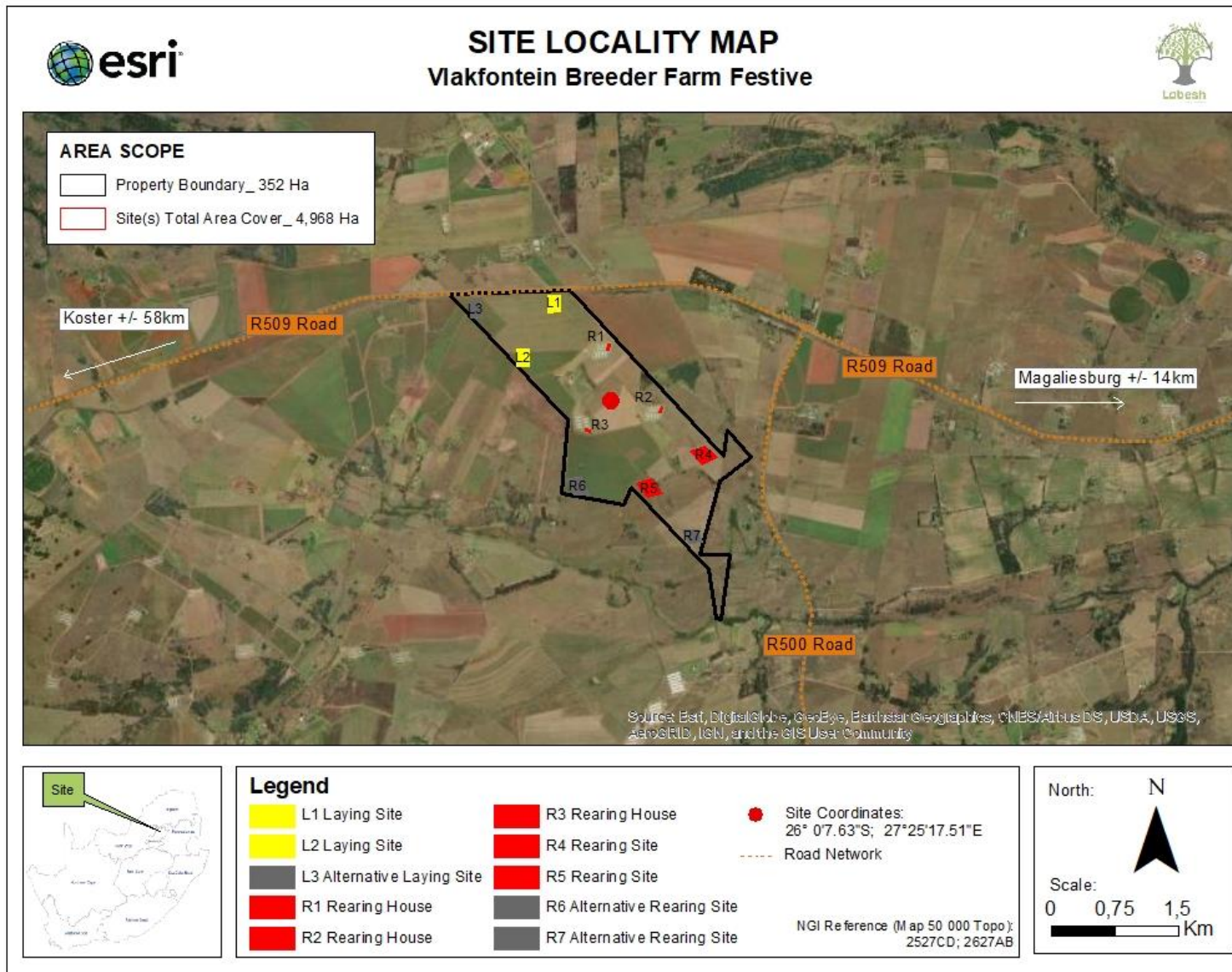


Figure 1: Site Locality Map

The following photographs give an indication of the current status of the project property. Photographs are also given under Appendix B.





5. SCOPE OF THE PROPOSED DEVELOPMENT AND ACTIVITIES

5.1 Description of the activities to be undertaken

The land, on which the proposed expansion is to take place, is owned by ASTRAL foods Ltd. (herein after referred to as the 'applicant') and consists of various farm portions. The farm boundary consists of the Remainder of Portion 6 of the Farm Bokfontein 385 JQ, Portion 35 of the Farm Bokfontein 385 JQ, Portion 3 of the Farm Bokfontein 385 JQ, Remainder of Portion 33 of the Farm Bokfontein 385 JQ, Portion 39 of the Farm Bokfontein 385 JQ, Portion 34 of the Farm Bokfontein 385 JQ, Remainder of Portion 9 of the Farm Bokfontein 385 JQ and Portion 32 of the Farm Hartbeesfontein 38 IQ and the area size is approximately 348Ha in extent.

The farm portions on which the proposed expansions will take place are

- Remainder of Portion 9 of the Farm Bokfontein 385 JQ;
- Portion 35 of the Farm Bokfontein 385 JQ;
- Portion 32 of the Farm Hartbeesfontein 38 IQ;
- Portion 3 of the Farm Bokfontein 385 JQ;
- Portion 34 of the Farm Bokfontein 385 JQ; and
- Remainder of Portion 6 of the Farm Bokfontein 385 JQ.

The total site footprint is approximately 17Ha in extent.

Current Operations

There are currently three (3) rearing sites operational onsite:

Rearing Site 1 (R1) – Seven (7) rearing houses, each with a capacity of 7 000 chickens. Thus, a total of 49 000 chickens (7 000 chickens x 7 rearing houses = 49 000 chickens);

Rearing Site 2 (R2) - Seven (7) rearing houses, each with a capacity of 7 000 chickens. Thus, a total of 49 000 chickens (7 000 chickens x 7 rearing houses = 49 000 chickens); and

Rearing Site 3 (R3) - Seven (7) rearing houses, each with a capacity of 7 000 chickens. Thus, a total of 49 000 chickens (7 000 chickens x 7 rearing houses = 49 000 chickens).

The house dimensions are 16,5m x 58m. In total, there are therefore 147 000 birds between the three rearing sites (R1, R2 and R3). As there are two production cycles per year, this is equivalent to 294 000 birds per year (147 000 birds x2 cycles per year).

Proposed project

The proposed project will entail the expansion of the Vlakfontein Breeder Farm. The proposed expansion will include the establishment and operation of:

- 1x Additional rearing house to Rearing Site 1 (R1);
- 1x Additional rearing house to Rearing Site 2 (R2);
- 1x Additional rearing house to Rearing Site 3 (R3);
- 1x New Rearing Site (R4) with a total of eight (8) rearing houses;
- 1x New Rearing Site (R5) with a total or eight (8) rearing houses;
- 1x New Laying Site (L1) with a total of six (6) houses; and
- 1x New Laying Site (L2) with a total of six (6) houses.

Applicable Farm Portions:

Proposed Project	Applicable Farm Portion
Rearing Site 1 (R1)	Remainder of Portion 9 of the Farm Bokfontein 385 JQ
Rearing Site 2 (R2)	Remainder of Portion 9 of the Farm Bokfontein 385 JQ
Rearing Site 3 (R3)	Portion 35 of the Farm Bokfontein 385 JQ
Rearing Site 4 (R4)	Remainder of Portion 9 of the Farm Bokfontein 385 JQ
Rearing Site 5 (R5)	Portion 35 of the Farm Bokfontein 385 JQ
Laying Site 1 (L1)	Remainder of Portion 9 of the Farm Bokfontein 385 JQ; and Portion 34 of the Farm Bokfontein 385 JQ
Laying Site 2 (L2)	Portion 35 of the Farm Bokfontein 385 JQ

Rearing Sites

The three existing rearing sites (R1, R2 and R3), which currently consists of seven houses, will each receive an additional rearing house. This will round up to a total of eight (8) houses per rearing site R1, R2 and R3 and each rearing site will be able to house 56 000 birds at any given time (each rearing site currently houses 49 000 birds at any given time). There will be a total of 49 000 female birds and 7000 male birds per rearing site. The house dimensions will be 16,5m x 58m (957m²). The additional rearing house to rearing sites R1, R2 and R3 will house 7 000 birds per house and a total of 21 000 birds will therefore be added to current operations.

Two new rearing sites (R4 and R5) will be established and operated onsite. Each new rearing site will consist of eight (8) rearing houses, each house with a capacity to house 7 000 chickens. This will add up to a total of 56 000 birds for rearing site 4(R4) and a total of 56 000 birds for rearing site 5 (R5) at any given time. At each rearing site (R4 and R5) there will 7 female houses and 1 male house. There will be a total of 49 000 female birds and 7000 male birds per rearing site. The house dimensions will be 16,5m x 58m (957m²). Through the establishment and operation of the two new rearing sites (R4 and R5), a total of 112 000 birds will be added to current operations.

In summary (Rearing Sites):

Rearing Sites	Existing Number of Rearing Houses	Existing Number of Birds	Total Number of Rearing Houses to be added to Current Operations (@ 7 000 birds per house)	Total Number of Birds to be added to Current Operations
	Before Expansion		After Expansion	
Rearing Site 1 (R1)	7	49 000	1	7 000
Rearing Site 2 (R2)	7	49 000	1	7 000
Rearing Site 3 (R3)	7	49 000	1	7 000
Rearing Site 4 (R4)	None	None	8	56 000
Rearing Site 5 (R5)	None	None	8	56 000
	Total (Existing Birds)	147 000	Total (Additional Birds)	133 000

Process Description:

At the rearing sites, day old chicks are raised up until 22 weeks to become laying hens. Sexes are split and the males and females are raised separately, with males in male houses and females in female houses. The rearing sites are used twice per year, with 2x22 week cycles. Rearing houses are also environmentally designed in order for the farmer to control all conditions within the houses such as temperature, airflow, humidity, light intensity, water and feeding. Four weeks prior to placement of the chicks and at the end of the previous cycle, the rearing houses are prepared. Manure is removed from the houses by pushing it to the front of the house with a Bobcat front-end loader and loading it onto a truck. The truck then removes the manure from the farm. Approximately 60m³ of manure are produced per house per cycle (two cycles per year). After manure has been removed, houses are then dry-cleaned, soaked and wet scrubbed, followed by a steam wash of up to 140°C. This process can take up to six hours per house. One rearing site with 8 houses will produce around 10,4m³ of wash water per cycle. As there are 5 rearing sites (current and new sites included) and two cycles per year, a total of 104m³ of wash water will be generated at the rearing farms per year (10,4m³ x 5 sites x 2 cycles per year). A sterilisation process is also applied to the houses.

Rearing houses are heated in order to receive chicks. Heater systems are used to achieve temperatures of up to 32°C and circulation fans will circulate air until the correct temperatures are achieved within the houses. During summer months, the houses will need less heat compared to winter months and will the heater systems be used less in summer than winter. As the chicks mature they grow feathers and as a result will begin to release heat. The heat that is released from the flock will eventually necessitate that the houses are cooled. A comprehensive ventilation system is installed in the houses consisting of fans and air inlets. As heat temperatures rise within the houses, air inlets are opened and the extraction fan will extract the warm air through the inlets.

Rearing houses are equipped with Light Emitting Diode (LED) lighting systems. The lights are also controlled to stimulate light intensity and day length. No natural daylight will be able to enter the houses and all air and ventilation entries will be equipped with light excluders to eliminate natural light.

Each site is equipped with eight 20ton bulk feed tanks and feed are delivered into these tanks using trucks. The feed will then be measured and transferred to each rearing house with an auger system. The auger will deliver the feed to the in-house feeding system that will in turn distribute the feed through the houses so that the birds are all fed at the same time. The houses have a 2 500kpa water supply to a header tank in order to guarantee water supply to the birds. From this tank the water will flow to the in-house drinking system. The drinker systems are installed throughout the houses to ensure that all the birds have access to water all times.

Laying Sites

Two new laying sites (L1 and L2) will be established and operated onsite. Each new laying site will consist of six (6) laying houses, each house with a capacity to house 6 500 chickens. This will add up to a total of 39 000 birds for laying site 1(L1) and a total of 39 000 birds for laying site 2 (L2) at any given time. The house dimensions will be 92m x 12,5m (1150m²). Through the establishment and operation of the two new laying sites (L1 and L2), a total of 78 000 birds will be added to current operations.

In summary (Laying Sites):

Laying Sites	Existing Number of Laying Houses	Existing Number of Birds	Total Number of Laying Houses to be added to Current Operations (@ 6 500 birds per house)	Total Number of Birds to be added to Current Operations
Before Expansion		After Expansion		
Laying Site 1 (L1)	None	None	6	39 000
Laying Site 2 (L2)	None	None	6	39 000
	Total (Existing Birds)	None	Total (Additional Birds)	78 000

Process Description:

Laying sites are where eggs are produced. After chicks have been raised to 22 weeks, they are moved to the laying houses. The males birds are moved from the rearing houses to the laying houses followed by the females one week later. With addition of light stimulation, mating will commence and the first eggs will be produced at around 24-25 weeks. The layer houses are equipped with nesting boxes in order to ensure space for females to lay their eggs. Layers farms are used once per year (once cycle per year), when birds are 22-62 weeks of age. Laying houses are also environmentally designed in order for the farmer to control all conditions within the houses such as temperature, airflow, humidity, light intensity, water, feeding and egg collection. Four weeks prior to placement of the layer birds and at the end of the previous cycle, the laying houses are prepared using a similar process as with the rearing houses. Manure is removed from the houses by pushing it to the front of the house with a Bobcat front-end loader and loading it onto a truck. The truck then removes the manure from the farm. Approximately 50m³ of manure are produced per house per cycle per year. After manure has been removed, houses are then dry-cleaned, soaked and wet scrubbed, followed by a steam wash of up to 140°C. This process can take up to six hours per house. One laying site with 6 houses will produce around 7,8m³ of wash water per cycle. As there are 2 new laying sites at one cycle per year, a total of 15,6m³ of wash water will be generated at the laying farms per year (7,8m³ x 2 sites x 1 cycle per year). A sterilisation process is also applied to the houses.

Once the laying houses have been cleaned and sterilised, new wood shavings are placed on the floors and feeding, drinking, heating and nesting equipment are put in place. There are no heaters in the laying houses as the birds are matured and fully feathered. The mature birds will release heat that will necessitate the cooling down of houses. A comprehensive ventilation system is installed in the houses consisting of fans and air inlets. As heat temperatures rise within the houses, air inlets are opened and the extraction fan will extract the warm air through the inlets.

Lighting within the layer houses are very important as the birds need to be light stimulated in order to continue mating. Laying houses are equipped with Light Emitting Diode (LED) lighting systems. The lights are also controlled to stimulate light intensity and day length. There is no restriction to natural daylight.

Each site is equipped with eight 20ton bulk feed tanks and feed are delivered into these tanks using trucks. Male and female birds are fed separately in the layer houses and is two different feeding systems installed. Both systems are hoist into the roof after feeding. When systems are in the roof, they are refilled with feed. Feed is measured and transferred to each laying house with an augur system. The augur will deliver the feed to the system in the roof whereafter feeders will be lowered to ensure access of the birds to the feed at the same time. All birds are fed at the same time. The houses have a 2 500kpa water supply to a header tank in order to guarantee water supply to the birds. From this tank the water

will flow to the in-house drinking system. The drinker systems are installed throughout the houses to ensure that all the birds have access to water all times.

Eggs are collected on a daily basis. After eggs are collected from the laying houses, eggs are stored onsite for a few hours in controlled rooms while waiting for environment controlled trucks to pick-up the eggs and transport it off site.

Alternative Sites

Alternatively, two (2) additional rearing sites (R6 & R7 and each with a total of 8 houses) and one (1) laying site (L3 with a total of 6 houses) have been identified for the proposed project and will be outlined as alternative sites within the required reports. For the alternative rearing sites (R6 & R7) a total of 112 000 birds will be added to operations and the alternative laying site (L3) will add 39 000 birds to operations.

Applicable Farm Portions (Alternative Sites):

Proposed Project	Applicable Farm Portion
Rearing Site 6 (R6)	Portion 32 of the Farm Hartbeesfontein 38 IQ;
Rearing Site 7 (R7)	Portion 3 of the Farm Bokfontein 385 JQ
Laying Site 3 (L3)	Remainder of Portion 6 of the Farm Bokfontein 385 JQ

Biosecurity

Since the Vlakfontein Breeder Farm deals with a high density of birds on the farm, it is crucial that efficient biosecurity measures are in place. For biosecurity reasons the rearing and laying sites will be split. The laying sites will be located on the north-western side of the farm and the rearing sites will be located on the north-eastern and south-eastern side of the farm. Rearing and laying sites will be managed differently and there will be restrictions in terms of movement between the sites. No person will be allowed to visit any site without the necessary authorisation from the responsible person. All personnel will shower prior to entering the rearing and laying houses as well upon existing. All vehicles and equipment will be fumigated.

5.1.1 Roads and Storm Water

Access

Access to the farm is currently from the R509 main road (on the northern side of the farm). Access will remain the same with the proposed expansion of the breeder farm.

Roads

Internal road infrastructure will be constructed in order to move between rearing and laying sites. Due to the new road infrastructure size, no listed activities are triggered under the NEMA Act, 1998 (Act No. 107 of 1998).

Surface Drainage/ Stormwater Routing

Efficient storm water management infrastructure will ensure that storm water runoff is effectively transported into areas where there are existing storm water conveyance infrastructure. New storm water conveyance infrastructure will also be installed in areas where there are no existing storm water conveyance infrastructure. Care will be taken through civil design to ensure effective clean and dirty water separation.

5.1.2 Water Services

Water Use and Availability

The farm is dependent on three (3) boreholes onsite for the provision of water for both domestic use and breeder farming activities.

Extraction capacity of the 3 boreholes are as follows:

Borehole 1: 95m³ per day

Borehole 2: 86.4m³ per day

Borehole 3: 17.3m³ per day

This is equivalent to a total abstraction of 198.7m³ of groundwater per day. Water within the rearing and laying houses are mainly used for drinking water for birds and washing of houses. A Water Use License application will be submitted to the Department of Water and Sanitation in due course for all water uses onsite, including the abstraction of groundwater from the 3 boreholes onsite.

The rearing and laying houses each have a 2 500kpa water supply to a header tank in order to guarantee water supply to the birds. From this tank the water will flow to the in-house drinking system. The drinker systems are installed throughout the houses to ensure that all the birds have access to water all times.

Water Storage

Water abstracted from the boreholes is stored in a reservoir on site. The reservoir has a storage capacity of 400kl (400m³). Water storage capacity will remain the same although the expansion of the breeder farm.

5.1.3 Waste

Domestic Waste

Domestic waste generated on the premises are contained in skips whereafter it is collected by a waste contractor.

Hazardous Waste

Manure

Rearing Sites: Approximately 60m³ of manure are produced per rearing house per cycle. This is equivalent to 480m³ of manure per rearing site (60m³ of manure per house x 8 rearing houses). As there are 5 rearing sites a total of 2400m³ of manure are produced per cycle per year (480m³ of manure per site x 5 sites). As there are 2 cycles per year, a total of 4800m³ of manure are produced per year on the farm for the rearing sites (2400m³ manure per cycle x 2 cycles).

Laying Sites: Approximately 50m³ of manure are produced per laying house per cycle. This is equivalent to 300m³ of manure per laying site (50m³ of manure per house x 6 laying houses). As there are 2 laying sites a total of 600m³ of manure are produced per cycle per year (300m³ of manure per site x 2 sites). As there is only one production cycle per year, a total of 600m³ of manure are produced per year on the farm for the laying sites.

Manure is removed from the rearing and laying houses by pushing it to the front of the house with a Bobcat front-end loader and loading it onto a truck. The truck then removes the manure from the farm.

Mortalities

Although much care is given to the well-being of birds throughout each production cycle, there will always be a number of birds who will not survive. Mortalities at Vlakfontein Breeder Farm are removed by external contractors on multiple cycles per week and will remain as such in future.

5.1.4 Sewage and Waste Water

Wash Water

Rearing Sites: One rearing site with 8 houses will produce around 10,4m³ of wash water per cycle. As there are 5 rearing sites (current and new sites included) and two cycles per year, a total of 104m³ of wash water will be generated at the rearing farms per year (10,4m³ x 5 sites x 2 cycles per year).

Laying Sites: One laying site with 6 houses will produce around 7,8m³ of wash water per cycle. As there are 2 new laying sites at one cycle per year, a total of 15,6m³ of wash water will be generated at the laying farms per year (7,8m³ x 2 sites x 1 cycle per year).

Sewage

Sewage and shower water are treated at each site by means of soak away pits.

5.1.5 Electricity

Existing infrastructure will continue to be utilised for the construction and operation of the new rearing and laying sites. Electricity supply is via ESKOM with transformer and metering points.

5.1.6 Traffic

Traffic linked to Vlakfontein Breeder Farm will experience an increase after expansion of new rearing and laying sites. However, the increase in traffic is not expected to impact negatively on the environment as the already existent main roads will be used to travel to and from the farm.

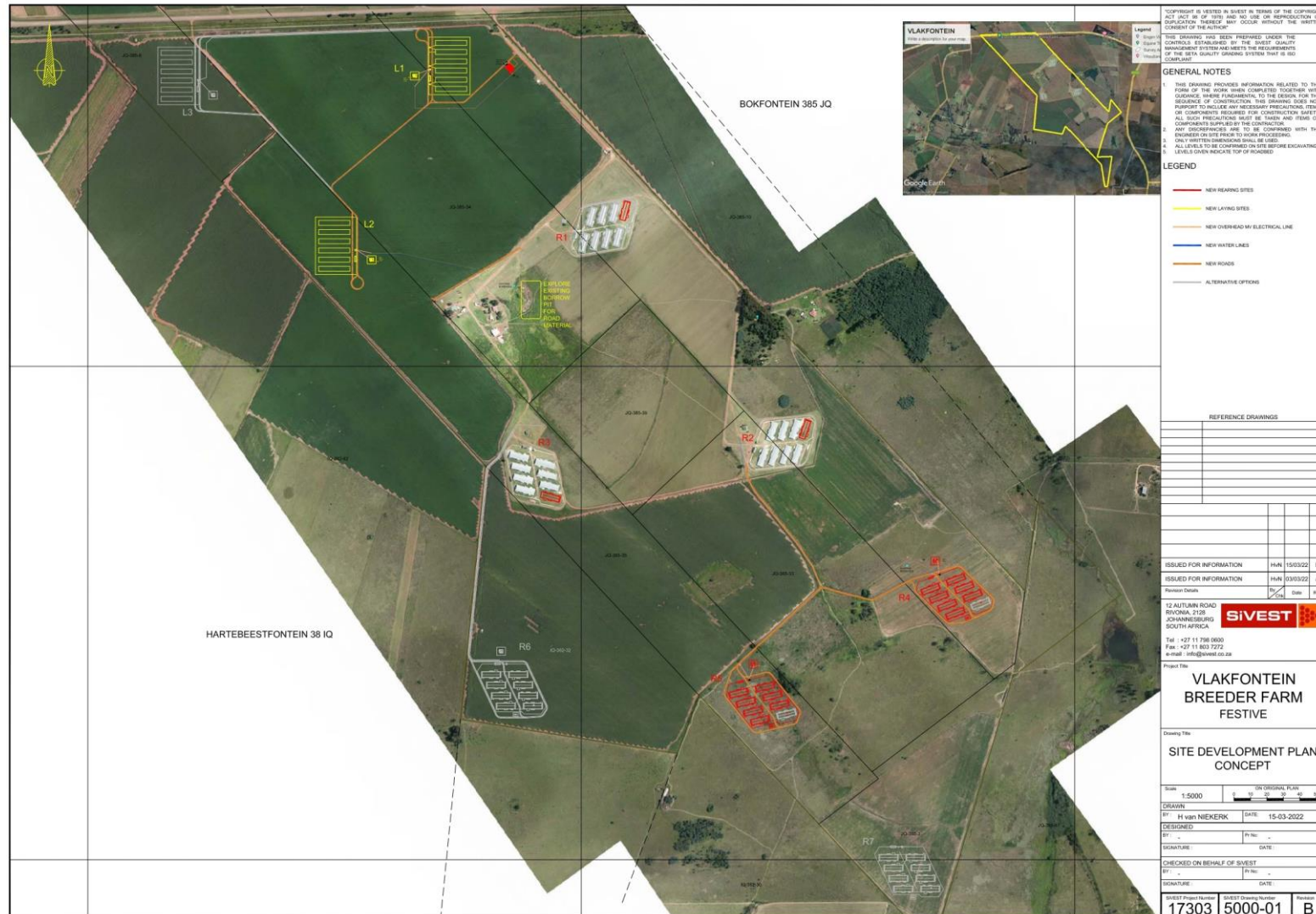


Figure 2: Proposed Site Layout Plan

5.2 Listed Activities triggered by the proposed development

The following listed activities are triggered by the proposed development and therefore require Environmental Authorisation, in terms of the Environmental Impact Assessment Regulations of 4 December 2014, as amended:

Table 1: Listed activity/activities triggered by the proposed development

Government Notice and Activity Number	Wording as per the Listing Notice	Description as per the project description relating to each listed activity
Government Notice R983 (Listing Notice 1)		
Government Notice R983 (Listing Notice 1), as amended Activity No. 5	<i>The development and related operation of facilities or infrastructure for the concentration; of (ii) more than 5000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days.</i>	The construction and operation of rearing and laying houses for the concentration of 190 000 birds.
Government Notice R983 (Listing Notice 1), as amended Activity No. 27	<i>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i>	The clearance of an area of 17 hectares of indigenous vegetation for the construction and operation of rearing and laying houses.
Government Notice R983 (Listing Notice 1), as amended Activity No. 40	<i>The expansion and related operation of facilities for the concentration of poultry, excluding chicks younger than 20 days, where the capacity of the facility will be increased by- (i) more than 1 000 poultry where the facility is situated within an urban area; or (ii) more than 5 000 poultry per facility situated outside an urban area.</i>	The expansion and operation of rearing houses for the concentration of 21 000 birds.
Government Notice R984 (Listing Notice 2)		
No activities triggered in Government Notice R984, as amended (Listing Notice 2)		
Government Notice R985 (Listing Notice 3)		
Government Notice R985 (Listing Notice 3), as amended Activity No. 12	<i>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 undertaken in accordance with a maintenance management plan.</i> <i>North West Province: (iv) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.</i>	The clearance of more than 300 square metres of indigenous vegetation within critical biodiversity areas for the construction and operation of rearing and laying houses.

5.3 Potential Environmental Licensing Required

5.3.1 Water Use Licence Activities

According to the GN 538 General Authorisations, dated September 2016, in terms of Section 39 of the NWA, 1998 (Act No. 36 of 1998), Section (7), a person who takes more than 50m³ of water from a surface water resource or 10m³ of water from a groundwater resource per day on average over a year on a property or piece of land or who stores more than 10 000m³ of water, must register the water use with the responsible authority.

- Groundwater Use

The project site lies within the Limpopo River Catchment (Limpopo Water Management Area or WMA 1). The property falls within the A21F quaternary drainage region. Table 2 (groundwater abstraction rates) in GN 288 of 4 April 2012, general authorisations in terms of Section 39 of the National Water Act, 1998 (Act No. 36 of 1998), states that 45m³ water may be abstracted per hectare per year in the A21F quaternary drainage region.

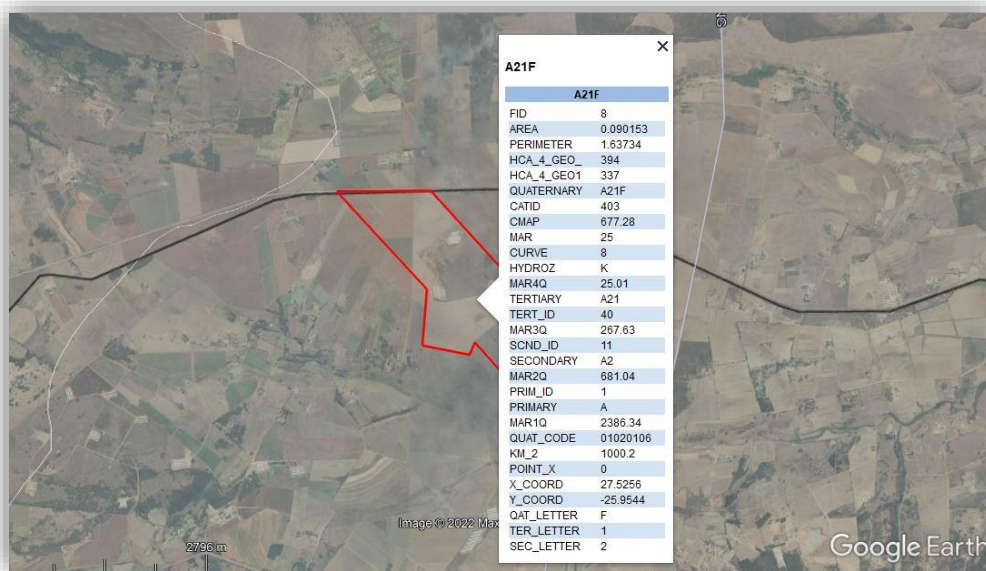


Figure 3: Quaternary Drainage Region

The water use for Vlakfontein Breeder Farm will exceed the 45m³ of water abstraction per hectare per year (for quaternary drainage A21F, as per GN 288 of 4 April 2012) and will a Water Use License Application (WULA) be lodged with the Department of Water and Sanitation (DWS) for the use of groundwater resources in due course.

- Water storage

Water storage at the facility will not exceed the 10 000m³ limit as outlined in GN 538 of 2016 (water storage at the proposed site will be 400m³). Thus, a Water Use License is not required for the storage of water.

5.3.2 Waste

As per GN 921 of 29 November 2013, and as amended on 11 October 2017, the Department of Environmental Affairs published a list of waste management activities that have, or are likely to have, a detrimental effect on the environment and in respect of which a waste management license may then be required in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008).

Manure and Mortalities

Manure and mortalities generated on the Vlakfontein Breeder Farm is removed via external contractors. A Waste Management License is therefore not required for the Vlakfontein Breeder Farm.

6. POLICY AND LEGISLATIVE CONTEXT OF THE APPLICATION

The following legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments are applicable to the proposed development and have been considered in this Basic Environmental Impact Assessment process.

Legislation

<p>The Constitution of South Africa, 1996 (Act No. 108 of 1996), as amended</p> <ul style="list-style-type: none"> To establish a Constitution with a Bill of Rights for the RSA.
<p>The National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended</p> <ul style="list-style-type: none"> To provide for the integrated management of the environment, and to regulate the 'Duty of Care' Principle.
<p>The Environmental Impact Assessment Regulations of 4 December 2014, as amended</p> <ul style="list-style-type: none"> To regulate and control the authorisation of certain listed activities.
<p>The National Heritage Resources Act, 1999 (Act No. 25 of 1999), as amended</p> <ul style="list-style-type: none"> To introduce an integrated and interactive system for the management of the national heritage resources.
<p>The National Appeal Regulations – Government Notice No. R.993 of 8 December 2014</p>
<p>Promotion of Access to Information Act, 2000 (Act No 2 of 2000 as amended)</p> <ul style="list-style-type: none"> To give effect to the constitutional right of access to any information held by the State and any information that is held by another person and that is required for the exercise or protection of any rights.
<p>The National Water Act, 1998 (Act No. 36 of 1998), as amended</p> <ul style="list-style-type: none"> To provide for fundamental reform of the law relating to water resources
<p>The National Environmental Management: Waste Act (Act No. 59 of 2008)</p> <ul style="list-style-type: none"> To reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation.
<p>The National Environmental Management: Air Quality (Act No. 39 of 2004)</p> <ul style="list-style-type: none"> To reform the law regulating air quality to protect the environment by providing reasonable measures for the prevention of pollution. To provide for national norms and standards regulating air quality monitoring, management and control.
<p>The Environment Conservation Act, 1989 (Act No. 73 of 1989)</p> <ul style="list-style-type: none"> To control environmental conservation.

Plans

North West Biodiversity Sector Plan, 2015

Guidelines

Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010

Guideline on Public Participation in the Environmental Impact Assessment Process, 2012

Spatial Tools

SANBI Biodiversity GIS Database

National Web Based Environmental Screening Tool

National Development Planning Frameworks

National Development Framework 2030, 2013

Provincial Development Planning Frameworks

North West Spatial Development Framework, 2016

Municipal Development Planning Frameworks

Rustenburg Local Municipality Integrated Development Plan (IDP), 2021/22

7. MOTIVATION FOR THE NEED AND DESIRABILITY OF THE PROPOSED DEVELOPMENT

7.1 Need and desirability of the development in the context of the preferred location

7.1.1 The Applicant

The proposed project will entail the expansion of the Vlakfontein Breeder Farm. The motivation for the expansion stems from the following: the poultry industry within South Africa is of high importance as it contributes hugely to food security and ultimate stimulation of the economy. As the poultry industry is one of the largest contributors to the agriculture sector within the country, the aim of the applicant (ASTRAL Foods Ltd.) is to expand its breeder farm in order to contribute to food security, job creation and economic growth.

7.1.2 Micro, Local and Regional Economy

The micro economy, especially Rustenburg area and its surrounds, will benefit significantly from the proposed expansion. The construction phase will benefit the micro economy as building material, labour etc. will all be sourced within the Rustenburg and surrounding areas. The facility itself will provide long-term employment opportunities for the local community. During the construction phase a total of 40 new employment opportunities will be generated. An additional of 24 employment opportunities will be generated during the operational phase. Local individuals will be employed as far as possible. The new employment opportunities will help alleviate the unemployment rate within the Rustenburg Local Municipality (which was 26,4% in the year 2011).

The provision of services such as for maintenance and daily necessities will ensure that the proposed expansion will contribute, on a long-term basis, to the local economy of Rustenburg and its surrounds. A considerable amount of contractors such as transporters, bedding/litter suppliers, feed suppliers, mortality collectors and manure collectors are also associated with the farm and its activities. All of these associated services will benefit as a result of the proposed expansion.

7.1.3 Provincial Benefit and South African Context

According to the North West Provincial Development Plan 2030 (2013), certain sectors were identified for their potential to encourage or drive growth within the province. Agriculture is one of the sectors identified with the potential to encourage economic growth. Through the expansion of the Vlakfontein Breeder Farm both employment and economic growth, as well as food security, can be achieved not only within the North West Province but also within South Africa.

7.1.4 Relationship between the Proposed Facilities and Natural Environment

Government structures within South Africa are under increasing pressure (financially) in order to protect natural areas. It is therefore essential that developers take the necessary steps and precautions to provide and protect natural areas. In order to ensure the protection of natural areas that may possibly be present on the proposed site, the applicant took the initiative to obtain specialist input studies to verify site sensitivity and to adhere to any recommendations made by specialists.

7.2 Need and Desirability in terms of the Guideline on Need and Desirability

The Department of Environmental Affairs published a Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010, in Government Notice 891 of 2014 (20 October 2014).

The table below indicates how the guideline requirements have been addressed.

Table 2: Need and desirability of the proposed project, in terms of the Guideline on Need and Desirability

Requirement	Part where requirement is addressed/response
<p>1. How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?¹</p>	<p>According to the North West Biodiversity Sector Plan, the proposed sites falls within Critical Biodiversity Areas 1 and 2 (CBA 1&2) and Ecological Support Area 2 (ESA 2). However, specialist input was obtained to confirm the site's sensitivity and recommendations.</p> <p>The impact of the proposed development on the ecological integrity of the project property has been assessed in Section 9.3 of this report.</p>
<p>1.1. How were the following ecological integrity considerations taken into account?</p>	
<p>1.1.1 <i>Threatened Ecosystems.</i>²</p>	<p>The historical vegetation type of the project site was Moot Plains Bushveld. This vegetation type is considered as "Vulnerable". According to the North West Biodiversity Sector Plan, the proposed sites falls within Critical Biodiversity Areas 1 and 2 (CBA 1&2) and Ecological Support Area 2 (ESA 2).</p> <p>To take into consideration any threatened ecosystems that may be present on the project site, the following specialist studies were commissioned as part of the Environmental Impact Assessment process:</p> <ul style="list-style-type: none"> • Agriculture Sensitivity Verification; • Aquatic Biodiversity Compliance Statement; and • Terrestrial Biodiversity Site Verification Report. <p>These studies identified the risks and impacts of the proposed project. These have been evaluated in further detail in this report.</p>
<p>1.1.2 <i>Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and</i></p>	<p>According to the Hydrology Map, there are no wetlands present on or near the proposed project site.</p>

¹ Section 24 of the Constitution and section 2(4)(a)(vi) of NEMA refer.

² Must consider the latest information including the notice published on 9 December 2011 (Government Notice No. 1002 in Government Gazette No. 34809 of 9 December 2011 refers) listing threatened ecosystems in terms of Section 52 of National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).

Requirement	Part where requirement is addressed/response
<p><i>planning procedures, especially where they are subject to significant human resource usage and development pressure.³</i></p>	<p>However, to take into consideration any threatened ecosystems that may be present on the project site, the following specialist studies were commissioned as part of the Environmental Impact Assessment process:</p> <ul style="list-style-type: none"> • Agriculture Sensitivity Verification; • Aquatic Biodiversity Compliance Statement; and • Terrestrial Biodiversity Site Verification Report. <p>These studies identified the risks and impacts of the proposed project. These have been evaluated in further detail in this report.</p>
<p><i>1.1.3 Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs").</i></p>	<p>According to the North West Biodiversity Sector Plan, the proposed sites falls within Critical Biodiversity Areas 1 and 2 (CBA 1&2) and Ecological Support Area 2 (ESA 2).</p> <p>However, to take into consideration any threatened ecosystems that may be present on the project site, the following specialist studies were commissioned as part of the Environmental Impact Assessment process:</p> <ul style="list-style-type: none"> • Agriculture Sensitivity Verification; • Aquatic Biodiversity Compliance Statement; and • Terrestrial Biodiversity Site Verification Report. <p>These studies identified the risks and impacts of the proposed project. These have been evaluated in further detail in this report.</p>
<p><i>1.1.4 Conservation targets.</i></p>	<p>The proposed sites is classified as Moot Plains Bushveld. The conservation target for this vegetation type is 19% (North West Biodiversity Sector Plan, 2015).</p>
<p><i>1.1.5 Ecological drivers of the ecosystem.</i></p>	<p>Mitigation measures have been incorporated into the Environmental</p>

³ Section 2(4)(r) of NEMA refers.

Requirement	Part where requirement is addressed/response
1.1.6 <i>Environmental Management Framework.</i>	<p>Management Programme for this project. The measures will aim to mitigate the influence of ecological drivers such as the influence of uncontrolled fires, human activity and alien invasive plant species.</p> <p>The Rustenburg Local Municipality does not yet have an Environmental Management Framework. The North West Biodiversity Sector Plan will be used to compile the local municipality's EMF.</p> <p>The following has been extracted from the North West Biodiversity Sector Plan:</p> <p>Critical Biodiversity Areas (CBAs) Are terrestrial and aquatic areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services. In other words, if these areas are not maintained in a natural or near natural state then biodiversity targets cannot be met. Maintaining an area in a natural state can include a variety of biodiversity compatible land uses and resource uses.</p> <ul style="list-style-type: none"> • <u>Critical Biodiversity Area 1 (CBA 1)</u> Maintain in a natural or near-natural state that maximises the retention of biodiversity pattern and ecological process: <ul style="list-style-type: none"> ▪ Ecosystems and species fully or largely intact and undisturbed. ▪ These are areas with high irreplaceability or low flexibility in terms of meeting biodiversity pattern targets. If the biodiversity features targeted in these areas are lost then targets will not be met. ▪ These are biodiversity features that are at, or beyond, their limits of acceptable change.

Requirement	Part where requirement is addressed/response
	<ul style="list-style-type: none"> • <u>Critical Biodiversity Area 2 (CBA 2)</u> Maintain in a natural or near-natural state that maximises the retention of biodiversity pattern and ecological process: <ul style="list-style-type: none"> ▪ Ecosystems and species fully or largely intact and undisturbed. ▪ Areas with intermediate irreplaceability or some flexibility in terms of meeting biodiversity targets. There are options for loss of some components of biodiversity in these landscapes without compromising the ability to achieve biodiversity targets, although loss of these sites would require alternative sites to be added to the portfolio of CBAs. ▪ These are biodiversity features that are approaching but have not passed their limits of acceptable change. <p>Ecological Support Areas (ESAs) Are terrestrial and aquatic areas that are not essential for meeting biodiversity representation targets (thresholds), but which nevertheless play an important role in supporting the ecological functioning of critical biodiversity areas and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation or carbon sequestration. The degree or extent of restriction on land use and resource use in these areas may be lower than that recommended for CBAs.</p> <ul style="list-style-type: none"> • <u>Ecological Support Area 1 (ESA 1)</u> Maintain in at least a semi-natural state as ecologically functional landscapes that retain basic natural attributes: <ul style="list-style-type: none"> ▪ Ecosystem still in a natural, near-natural state or semi-natural state, and has not been previously developed. ▪ Ecosystems moderately to significantly disturbed but still

Requirement	Part where requirement is addressed/response
	<p>able to maintain basic functionality.</p> <ul style="list-style-type: none"> ▪ Individual species or other biodiversity indicators may be severely disturbed or reduced. ▪ These are areas with low irreplaceability with respect to biodiversity pattern targets only. <ul style="list-style-type: none"> • <u>Ecological Support Area 2 (ESA 2)</u> Maintain as much ecological functionality as possible (generally these areas have been substantially modified): <ul style="list-style-type: none"> ▪ Maintain current land use or restore area to a natural state. ▪ Ecosystem NOT in a natural or near-natural state, and has been previously developed (e.g. ploughed). ▪ Ecosystems significantly disturbed but still able to maintain some ecological functionality. ▪ Individual species or other biodiversity indicators are severely disturbed or reduced and these are areas that have low irreplaceability with respect to biodiversity pattern targets only. ▪ These are areas with low irreplaceability with respect to biodiversity pattern targets only. These areas are required to maintain ecological processes especially landscape connectivity. <p>In terms of the recommended land use zones and associated activities in relation to the CBA Map categories (Table 13 of the NWBSP), <i>Agriculture Infrastructure – Intensive Animal Farming</i> (e.g. chicken battery) is stated as 'N', a not permitted, actively discouraged activity for CBA 1 and 2 and ESA 1. ESA 2 is stated as 'R', a restricted to compulsory, site-specific conditions & controls when unavoidable, not usually permitted activity. However, further on the NWBSP it is stated that agricultural infrastructure including agri-industrial</p>

Requirement	Part where requirement is addressed/response
<p>1.1.7 <i>Spatial Development Framework.</i></p>	<p>facilities, agri-villages, buildings, houses, sheds and intensive animal production facilities can be considered in ESAs, with restrictions.</p> <p>The Rustenburg Local Municipality does not yet have a Spatial Development Framework. The Rustenburg Integrated Development Plan (IDP) 2021/2022 has however been used for the Environmental Impact Assessment process.</p> <p>According to the IDP, development priorities were identified within the province. Provincial Priority Area 1: Economy and Employment states that: “The provincial economy needs to become more productive, more competitive and more diversified. Prioritised sectors are identified as such for their potential to encourage or drive growth and or for their ability to create employment.” The sectors identified include the Agriculture sector.</p> <p>The proposed expansion is in line with the IDP as it will contribute to economic growth, food security and employment opportunities.</p> <p>According to the IDP’s Provincial Priority Area 6: Environmental Sustainability, the following are key priorities:</p> <ul style="list-style-type: none"> • Investment in skills, technology and institutional capacity is crucial in all aspects regarding a sustainable society and low-carbon economy; • Commitment to the protection of biodiversity; • Resource Critical Areas must be identified and protected through a ‘spatial contract’ binding on all spheres of government and relevant role-players; • Waste management must be effective and focus on recycling and re-use and value of the waste as a resource for socio-economic upliftment; • Prepare for climate change and other environmental pressures

Requirement	Part where requirement is addressed/response
	<p>through coordinated planning; and</p> <ul style="list-style-type: none"> • The protection of the freshwater eco-system and Water Critical Biodiversity Areas.
<p>1.1.8 <i>Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).</i>⁴</p>	<p>The proposed activity do not have significant contributions towards global and international responsibilities.</p>
<p>1.2 How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?⁵</p>	<p>Aquatic, agricultural and terrestrial biodiversity assessments were conducted for the proposed sites. The purpose of the studies were to determine the current state of the proposed site and the impact the proposed development will have on fauna and flora assemblages. The findings of the assessments are presented under Section 8.3 of this report.</p> <p>Mitigation measures have been incorporated into the Environmental Management Programme for this project. The measures will aim to mitigate the influence of ecological drivers such as the influence of uncontrolled fires, human activity and alien invasive plant species.</p>
<p>1.3 How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?⁶</p>	<p>Potential negative environmental impacts associated with the proposed development have been identified and assessed in Section 8.4 of this report. Mitigation measures have also been identified and recommended in the EMP to mitigate negative environmental impacts.</p> <p>The main positive impacts of the proposed development are:</p> <ul style="list-style-type: none"> • Stimulation of the agriculture sector. • Generation of employment opportunities. • Stimulation of the local economy.

⁴ Section 2(4)(n) of NEMA refers.

⁵ Section 24 of the Constitution and Sections 2(4)(a)(i) and 2(4)(b) of NEMA refer.

⁶ Section 24 of the Constitution and Sections 2(4)(a)(ii) and 2(4)(b) of NEMA refer.

Requirement	Part where requirement is addressed/response
<p>1.4 What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?⁷</p>	<p>To enhance the positive impacts, local people will be employed during the construction and operational phases of the development, as far as possible.</p> <p>During the construction phase of the proposed development, general waste, such as building rubble and domestic waste will be generated. Some hazardous waste, such as spilt oil or diesel (from vehicles/machinery/equipment) may also be generated.</p> <p>During the operational phase of the proposed development waste such as chicken litter (bedding and manure), general/domestic waste and some hazardous waste, such as spilt oil and diesel may be generated.</p> <p>Mitigation measures to minimise, reuse and/or recycle the waste has been recommended in the Environmental Management Programme for the project.</p>
<p>1.5 How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?⁸</p>	<p>It is not expected for the proposed development to have an impact upon landscapes and/or sites that constitute the nation's cultural heritage. The proposed development entails the removal of approximately 17ha (170 000m²) of indigenous vegetation. The project property is approximately 348ha (3 480 000m²) in total.</p> <p>According to the National Heritage Resources Act, 1999 (Act No. 25 of 1999), developments that will change the character of a site by more than 5 000m² must be brought under the attention of the South African Heritage Resources Agency (SAHRA). Such developments may then require a Heritage Impact Assessment to be conducted (as required by SAHRA). The part of the project property (the sites) that will be changed as part of the proposed development is more than 5 000m² and a Phase 1 Heritage Impact Assessment may be required for the project site. SAHRA has, however, been notified of the</p>

⁷ Section 24 of the Constitution and Sections 2(4)(a)(iv) and 2(4)(b) of NEMA refer.

⁸ Section 24 of the Constitution and Sections 2(4)(a)(iii) and 2(4)(b) of NEMA refer.

Requirement	Part where requirement is addressed/response
	<p>proposed development as part of the general public participation process, seeing as SAHRA is considered to be an Interested and Affected Party of the proposed project, irrespective of the fact that a Heritage Impact Assessment is required or not for the proposed development.</p>
<p>1.6 How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?⁹</p>	<p>The proposed development will likely use small amounts of one or more of the following non-renewable natural resources during the construction phase: diesel, petrol and/or LPG. This includes, for example, diesel and petrol used in construction vehicles. No direct usage of non-renewable natural resources is anticipated during the operational phase of the proposed development.</p> <p>Mitigation measures have been recommended in the Environmental Management Programme for this proposed development, to minimise the use of non-renewable natural resources.</p>
<p>1.7 How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?¹⁰</p>	<p>The proposed development will not use or impact upon any renewable natural resources.</p>
<p>1.7.1 <i>Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)</i></p>	<p>It is not expected for the proposed development to exacerbate the increased use of resources to maintain economic growth. By accommodating the proposed project on the proposed farm portion, both social (employment opportunities) and economic (economy growth) development will be exalted.</p>

⁹ Section 24 of the Constitution and Sections 2(4)(a)(v) and 2(4)(b) of NEMA refer.

¹⁰ Section 24 of the Constitution and Sections 2(4)(a)(vi) and 2(4)(b) of NEMA refer.

Requirement	Part where requirement is addressed/response
1.7.2 <i>Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources this the proposed development alternative?)</i>	The resource use is justifiable and should not affect intra- and intergenerational equity. Mitigation measures have also been recommended in the Environmental Management Programme for this proposed development, to minimise the use of resources.
1.7.3 <i>Do the proposed location, type and scale of development promote a reduced dependency on resources?</i>	Yes. The proposed development will create agricultural services in an already established agricultural area and contribute to food security.
1.8 How were a risk-averse and cautious approach applied in terms of ecological impacts? ¹¹	No development will take place within watercourses, wetlands and/or wetland buffer zones. Alternative sites will be used where required for rearing and/or laying sites that may fall within natural vegetation patches.
1.8.1 <i>What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?</i>	<p>The following assumptions have been made:</p> <ul style="list-style-type: none"> • That all research and reference sources or material is accurate and up to date; • That the project information, as provided by the applicant, is correct; • That the proposed development will be constructed as per the layout plans supplied from the applicant; and • That the development will be operated according to the Environmental Management Programme and in a responsible manner. <p>At this stage, the fossil assemblages that may possibly be present beneath the project site are unknown. This will be determined during the Field Assessment that will be undertaken during commencement of the construction phase of the proposed project.</p>
1.8.2 <i>What is the level of risk associated with the limits of current knowledge?</i>	It is Labesh's opinion that the level of risk associated with the limits of current knowledge is <i>low</i> .
1.8.3 <i>Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</i>	A risk-averse and cautious approach was applied to the Basic Environmental Impact Assessment by keeping in mind the gaps in knowledge and

¹¹ Section 24 of the Constitution and Section 2(4)(a)(vii) of NEMA refer.

Requirement	Part where requirement is addressed/response
	limitations.
1.9 How will the ecological impacts resulting from this development impact on people's environmental right in terms following: ¹²	
1.9.1 <i>Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</i>	Section 8.4 of this report provides a list of the anticipated impacts from the proposed development. Section 8.7 provides some mitigation measures for these impacts and the Environmental Management Programme for the proposed development provides further detailed mitigation measures that should be applied to minimise the impacts on the environment from the development.
1.9.2 <i>Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?</i>	<p>The main positive impacts of the proposed development are:</p> <ul style="list-style-type: none"> • Stimulation of the agriculture sector. • Generation of employment opportunities. • Stimulation of the local economy. <p>To enhance the positive impacts, local people will be employed during the construction and operational phases of the development, as far as possible.</p>
1.10 Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?	It is not expected for the proposed development to result in socio-economic impacts relating to livelihoods, loss of heritage sites and/or opportunity costs.
1.11 Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	Refer to Section 8.4 of this report.
1.12 Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological	Refer to Section 8.1 of this report.

¹² Section 24 of the Constitution and Sections 2(4)(a)(viii) and 2(4)(b) of NEMA refer.

Requirement	Part where requirement is addressed/response
considerations? ¹³	
1.13 Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area? ¹⁴	Refer to Section 8.4 of this report.
2.1 What is the socio-economic context of the area, based on, amongst other considerations,	the following considerations?
2.1.1 <i>The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area,</i>	<p>According to the IDP, development priorities were identified within the province. Provincial Priority Area 1: Economy and Employment states that: "The provincial economy needs to become more productive, more competitive and more diversified. Prioritised sectors are identified as such for their potential to encourage or drive growth and or for their ability to create employment." The sectors identified include the Agriculture sector.</p> <p>The proposed expansion is in line with the IDP as it will contribute to economic growth, food security and employment opportunities.</p>
2.1.2 <i>Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.),</i>	The proposed development is in line with the Rustenburg Local Municipality Integrated Development Plan (IDP) 2021/2022, as discussed previously under point 2.1.1
2.1.3 <i>Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and</i>	The proposed development is in line with the Rustenburg Local Municipality Integrated Development Plan (IDP) 2021/2022, as discussed previously under point 2.1.1
2.1.4 <i>Municipal Economic Development Strategy ("LED Strategy").</i>	No LED Strategy could be found for the Rustenburg Local Municipality. However, within the IDP 2021/2022 opportunities are identified within their ability to develop the economy of the local municipality and improve socio-economic conditions of residents within the municipality. Agriculture is one of the opportunities identified and includes livestock production (cattle, sheep,

¹³ Section 2(4)(b) of NEMA refer.

¹⁴ Regulations 22(2)(i)(j), 28(1)(g) and 31(2)(1) in Government Notice No. R. 543 refer.

Requirement	Part where requirement is addressed/response
	goats, piggery and poultry) and large scale broiler and layers production.
<p>2.2 Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?</p>	<p>The following socio-economic impacts of the proposed development have been identified:</p> <ul style="list-style-type: none"> • Stimulation of the agriculture sector therefore food availability. • Generation of employment opportunities. • Stimulation of the local economy.
<p>2.2.1 Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?</p>	<p>No LED Strategy could be found for the Rustenburg Local Municipality. However, within the IDP 2021/2022 opportunities are identified within their ability to develop the economy of the local municipality and improve socio-economic conditions of residents within the municipality. Agriculture is one of the opportunities identified to develop the local economy and includes livestock production (cattle, sheep, goats, piggery and poultry) and large scale broiler and layers production.</p> <p>The proposed development will therefore complement the local socio-economic initiatives.</p>
<p>2.3 How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?¹⁵</p>	<p>The proposed development will address the following specific need of the community:</p> <ul style="list-style-type: none"> • The provision of employment opportunities. • The provision of agricultural services and food security.
<p>2.4 Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term?¹⁶ Will the impact be socially and economically sustainable in the short- and long-term?</p>	<p>It is expected for the proposed development to result in equitable impact distributions in the short- and long-term as well as to be socially and economically sustainable in the short- and long-term.</p>
<p>2.5 In terms of location, describe how the placement of the proposed development will:¹⁷</p>	

¹⁵ Section 2(2) of NEMA refers.

¹⁶ Sections 2(2) and 2(4)(c) of NEMA refers.

¹⁷ Section 3 of the Development Facilitation Act, 1995 (Act No. 67 of 1995) ("DFA") and the National Development Plan refer.

Requirement	Part where requirement is addressed/response
2.5.1 <i>result in the creation of residential and employment opportunities in close proximity to or integrated with each other,</i>	It is estimated that the proposed development will generate 40 employment opportunities during the construction phase and 24 additional employment opportunities during the operational phase. This will include employment opportunities for local labourers.
2.5.2 <i>reduce the need for transport of people and goods,</i>	It is not expected for the proposed development to have an impact upon the transportation of people or goods.
2.5.3 <i>result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport),</i>	It is not expected for the proposed development to have an impact upon access to public transport or the enabling of non-motorised and pedestrian transport.
2.5.4 <i>compliment other uses in the area,</i>	The predominant land uses in the area are agricultural land uses. The proposed development therefore compliments the other uses in the area (the agriculture uses).
2.5.5 <i>be in line with the planning for the area,</i>	The proposed development is in line with the development goals of the Rustenburg Local Municipality.
2.5.6 <i>for urban related development, make use of underutilised land available with the urban edge,</i>	The proposed development is not an urban related development as it is the expansion of breeder facilities on an already established breeder farm. The proposed development falls outside the urban edge.
2.5.7 <i>optimise the use of existing resources and infrastructure,</i>	The proposed development will make use of existing road infrastructure as far as possible. The road infrastructure will however be upgraded where required. Existing electricity and water infrastructure will continue to be used as far as possible but will however be upgraded where required.
2.5.8 <i>opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement),</i>	No new bulk infrastructure will be required for the proposed project.
2.5.9 <i>discourage "urban sprawl" and contribute to compaction/densification,</i>	The proposed development is not an urban related development as it is the expansion of breeder facilities on an already established breeder farm.

Requirement	Part where requirement is addressed/response
<p>2.5.10 contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs,</p>	<p>It is not expected for the proposed development to have an effect on historically distorted spatial patterns of settlements.</p>
<p>2.5.11 encourage environmentally sustainable land development practices and processes,</p>	<p>Environmentally sustainable land development practices and processes are encouraged through specific mitigation measures that have been included in the Environmental Management Programme for this project.</p>
<p>2.5.12 take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.),</p>	<p>The location for the proposed development is strategically ideal for the following reasons:</p> <ul style="list-style-type: none"> • The property is situated on an already established breeder farm. • The property is situated approximately 58km east of Koster and approximately 77km south of Rustenburg. • The site is also situated in close proximity (±14km) to Magaliesburg situated within the Gauteng Province. • The site is situated next to the R509 main road, making transport to and from the site easy (for workers and clients). • The site is not situated within an urban area nor are there mines in the vicinity that would place developmental pressure on the breeder farm. • The proposed development is in line with the Rustenburg Local Municipality Integrated Development Plan (IDP) 2021/2022.
<p>2.5.13 the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential),</p>	<p>Investment in the proposed development will result in socio-economic returns for the area. It is estimated that the development will generate 40 employment opportunities during the construction phase and 24 employment opportunities during the operational phase.</p>
<p>2.5.14 impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and</p>	<p>It is not expected for the proposed development to have an impact upon history, sense of place, heritage of the area or the socio-cultural and cultural-historic characteristics and sensitivities of the area. The proposed development entails the removal of approximately 17ha (170 000m²) of</p>

Requirement	Part where requirement is addressed/response
	<p>indigenous vegetation. The project property is approximately 348ha (3 480 000m²) in total.</p> <p>According to the National Heritage Resources Act, 1999 (Act No. 25 of 1999), developments that will change the character of a site by more than 5 000m² must be brought under the attention of the South African Heritage Resources Agency (SAHRA). Such developments may then require a Heritage Impact Assessment to be conducted (as required by SAHRA). The part of the project property (the site) that will be changed as part of the proposed development is more than 5 000m² and a Phase 1 Heritage Impact Assessment may be required for the project site. SAHRA has, however, been notified of the proposed development as part of the general public participation process, seeing as SAHRA is considered to be an Interested and Affected Party of the proposed project.</p>
<p>2.5.15 <i>in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?</i></p>	<p>The proposed development is not an urban related development as it is the expansion of breeder facilities on an already established breeder farm. The proposed development falls outside the urban edge.</p>
<p>2.6 How were a risk-averse and cautious approach applied in terms of socio-economic impacts?:¹⁸</p>	<p>A risk-averse and cautious approach was applied to the Basic Environmental Impact Assessment by keeping in mind the gaps in knowledge and limitations.</p>
<p>2.6.1 <i>What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?¹⁹</i></p>	<p>The following assumptions have been made:</p> <ul style="list-style-type: none"> • That all research and reference sources or material is accurate and up to date; • That the project information, as provided by the applicant, is correct; • The proposed development will be constructed as per the layout plans supplied from the applicant; and

¹⁸ Section 2(4)(a)(vii) of NEMA refers.

¹⁹ Section 24(4) of NEMA refers.

Requirement	Part where requirement is addressed/response
	<ul style="list-style-type: none"> That the development will be operated according to the Environmental Management Programme and in a responsible manner <p>At this stage, the fossil assemblages that may possibly be present beneath the project site are not known. This will be determined during the Field Assessment that will be undertaken during commencement of the construction phase of the proposed project.</p>
<p>2.6.2 <i>What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?</i></p>	<p>It is Labesh's opinion that the level of risk associated with the limits of current knowledge is low.</p>
<p>2.6.3 <i>Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</i></p>	<p>A risk-averse and cautious approach was applied to the Basic Environmental Impact Assessment by keeping in mind the gaps in knowledge and limitations.</p>
<p>2.7 How will the socio-economic impacts resulting from this development impact on people's</p>	<p>environmental right in terms following:</p>
<p>2.7.1 <i>Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</i></p>	<p>It is not expected for the proposed development to impact significantly on people's health, safety and social ills.</p>
<p>2.7.2 <i>Positive impacts. What measures were taken to enhance positive impacts?</i></p>	<p>The main positive impacts of the proposed development are:</p> <ul style="list-style-type: none"> Stimulation of the agriculture sector. Generation of employment opportunities. Stimulation of the local economy. <p>To enhance the positive impacts, local people will be employed during the construction and operational phases of the development, as far as possible.</p>
<p>2.8 Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socioeconomic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?</p>	<p>The development's socio-economic impacts will indirectly result in the consumption of natural resources, such as water and diesel. However, the usage of the resources is not considered to be an over-utilisation.</p>

Requirement	Part where requirement is addressed/response
2.9 What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations? ²⁰	Refer to Section 8.1 of this report.
2.10 What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? ²¹ Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?	Refer to Section 8.1 of this report. The alternatives considered allow for the "best practicable environmental option" to be selected.
2.11 What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination? ²²	Local labourers will be employed, as far as possible and up to certain skill levels, depending on the work involved.
2.12 What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle? ²³	To ensure that responsibility for the environmental health and safety consequences of the development has been addressed, mitigation measures have been identified in the Environmental Management Programme. The responsibility for implementing the mitigation measures lies with the applicant.
2.13 What measures were taken to:	
2.13.1 <i>ensure the participation of all interested and affected parties,</i>	<p>A public participation process was conducted, in accordance with the EIA Regulations, 2014, as amended, and also taking the following into consideration</p> <ul style="list-style-type: none"> • GN 807 - Public Participation Guideline in the Environmental Impact Assessment Process, 2012; and

²⁰ Section 2(4)(b) of NEMA refers.

²¹ Section 2(4)(c) of NEMA refers.

²² Section 2(4)(d) of NEMA refers.

²³ Section 2(4)(e) of NEMA refers.

Requirement	Part where requirement is addressed/response
	<ul style="list-style-type: none"> The Promotion of Access to Information Act (PAIA), 2000.
<p>2.13.2 provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation,²⁴</p>	<p>The public participation process for this project is open to all parties. Site notices, email correspondence and a newspaper advertisement were placed to encourage participation from a wider audience than simply the adjacent land owners.</p>
<p>2.13.3 ensure participation by vulnerable and disadvantaged persons,²⁵</p>	<p>The public participation processes were open to all individuals, also to vulnerable and disadvantaged persons.</p>
<p>2.13.4 promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means,²⁶</p>	<p>All employees, contractors and sub-contractors will be required to attend environmental awareness inductions (training).</p>
<p>2.13.5 ensure openness and transparency, and access to information in terms of the process,²⁷</p>	<p>A public participation process was conducted, in accordance with the EIA Regulations, 2014, as amended, and also taking the following into consideration</p> <ul style="list-style-type: none"> GN 807 - Public Participation Guideline in the Environmental Impact Assessment Process, 2012; and The Promotion of Access to Information Act (PAIA), 2000. <p>The public participation process was open to participation from any members of the public and was a fully transparent process. All comments received from Interested and Affected Parties have been included in the reports for this project and have also been responded to/addressed. The reports were available to any person wishing to review and comment upon the reports.</p>
<p>2.13.6 ensure that the interests, needs and values of all interested and affected parties were</p>	<p>A public participation process was conducted, in accordance with the EIA</p>

²⁴ Section 2(4)(f) of NEMA refers.

²⁵ Section 2(4)(f) of NEMA refers.

²⁶ Section 2(4)(h) of NEMA refers.

²⁷ Section 2(4)(k) of NEMA refers.

Requirement	Part where requirement is addressed/response
<p><i>taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge²⁸, and</i></p>	<p>Regulations, 2014, as amended, and also taking the following into consideration</p> <ul style="list-style-type: none"> • GN 807 - Public Participation Guideline in the Environmental Impact Assessment Process, 2012; and • The Promotion of Access to Information Act (PAIA), 2000.
<p><i>2.13.7 ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted?²⁹</i></p>	<p>A public participation process was conducted, in accordance with the EIA Regulations, 2014, as amended, and also taking the following into consideration</p> <ul style="list-style-type: none"> • GN 807 - Public Participation Guideline in the Environmental Impact Assessment Process, 2012; and • The Promotion of Access to Information Act (PAIA), 2000.
<p>2.14 Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?³⁰</p>	<p>Local labourers will be employed, as far as possible and up to certain skill levels, depending on the work involved.</p>
<p>2.15 What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?³¹</p>	<p>All employees, contractors and sub-contractors will be required to attend environmental awareness inductions (training). This will include informing workers that they have the right to refuse work should the work be harmful to human health or the environment.</p>
<p>2.16 Describe how the development will impact on job creation in terms of, amongst other aspects:</p>	
<p><i>2.16.1 the number of temporary versus permanent jobs that will be created,</i></p>	<p>It is estimated that the proposed development will generate 40 temporary</p>

²⁸ Section 2(4)(g) of NEMA refers.

²⁹ Section 2(4)(q) of NEMA refers.

³⁰ x

³¹ Section 2(4)(j) of NEMA refers.

Requirement	Part where requirement is addressed/response
	employment opportunities during the construction phase and 24 permanent employment opportunities during the operational phase. This will include employment opportunities for local labourers.
2.16.2 <i>whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area),</i>	Local labourers will be employed, as far as possible and up to certain skill levels, depending on the work involved.
2.16.3 <i>the distance from where labourers will have to travel,</i>	Labourers will be transported to and from the construction site. Using local labourers (as far as possible) will decrease travel distances.
2.16.4 <i>the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and</i>	Employment opportunities will be created at the proposed development site.
2.16.5 <i>the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.).</i>	The proposed development will create employment opportunities and should not impact upon employment opportunities in other sectors.
2.17 What measures were taken to ensure:	
2.17.1 <i>that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and</i>	Relevant environmental and town planning legislation was considered and adhered to during the Environmental Impact Assessment and Land Use Rights processes. Also refer to Chapter 6 of this report.
2.17.2 <i>that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?</i>	There have been no such conflicts to resolve to date.
2.18 What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage? ³²	<p>The proposed development is situated outside an urban area and is earmarked for agriculture use. Ensuring that the environment (of the project site) is held in the public trust is therefore not deemed to be applicable to this proposed development.</p> <p>Mitigation measures will also be included in the Environmental Management Programme for this development to minimise the impacts of the proposed development on the environment.</p>

³² Section 2(4)(o) of NEMA refers.

Requirement	Part where requirement is addressed/response
2.19 Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left? ³³	Realistic mitigation measures have been proposed in detail in the EMPr for this project. Should these mitigation measures be implemented by the applicant, it is not expected for there to be any long-term environmental legacy or burden.
2.20 What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment? ³⁴	The applicant will be responsible for any costs associated with the remediation of pollution, environmental degradation and consequent adverse health effects and for preventing, controlling or minimising further pollution, environmental damage or adverse health effects.
2.21 Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations? ³⁵	Refer to Section 8.1 of this report.
2.22 Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area? ³⁶	Cumulative impacts have been described and assessed in Section 9.3 of this report.

³³ Section 240(1)(b)(iii) of NEMA and the National Development Plan refer.

³⁴ Section 2(4)(p) of NEMA refers.

³⁵ Section 2(4)(b) of NEMA refers.

³⁶ Regulations 22(2)(i)(j), 28(1)(g) and 31(2)(1) in Government Notice No. R. 543 refer.

8. PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ACTIVITY, SITE AND LOCATION WITHIN THE SITE

8.1 Alternatives considered

According to the Western Cape Department of Environmental Affairs and Development Planning's Guideline on Alternatives (2010), the following alternatives can be assessed:

Table 3: Alternative Types

Alternative Type	Explanation/Examples
Location	Refers to both alternative properties as well as alternative sites on the same property.
Activity	Incineration of waste rather than disposal at a landfill site/Provision of public transport rather than increasing the capacity of roads.
Design or Layout	Design: e.g. Different architectural and or engineering designs Site Layout: Consideration of different spatial configurations of an activity on a particular site (e.g. siting of a noisy plant away from residences).
Technological	Consideration of such alternatives is to include the option of achieving the same goal by using a different method or process (e.g. 1 000 megawatt of energy could be generated using a coal-fired power station or wind turbines).
Demand	Arises when a demand for a certain product or service can be met by some alternative means (e.g. the demand for electricity could be met by supplying more energy or using energy more efficiently, by managing demand).
Input	Input alternatives are applicable to applications that may use different raw materials or energy sources in their process (e.g. industry may consider using either high sulphur coal or natural gas as a fuel source).
Routing	Consideration of alternative routes generally applies to linear developments such as power line servitudes, transportation and pipeline routes.
Scheduling and Timing	Where a number of measures might play a part in an overall programme, but the order in which they are scheduled will contribute to the overall effectiveness of the end result.
Scale and Magnitude	Activities that can be broken down into smaller units and can be undertaken on different scales (e.g. for a housing development there could be the option of 10, 15 or 20 housing units. Each of these alternatives may have different impacts).
"No-Go Option"	This is the option of not implementing the proposed activity.

Alternative Assessments must always include the "No-Go Option" as the baseline against which all other alternatives must be measured. The following alternatives could be considered for the proposed project:

- Location – Alternative properties and alternative sites on the same property;
- Design or Layout;
- Scheduling and Timing;
- Scale and Magnitude; and
- "No-Go Option".

Alternatives were considered in a qualitative manner.

8.1.1 Location

Alternative properties

The land on which the proposed expansion are to take place is owned by ASTRAL Foods Ltd. The property is an already established breeder farm comprising of three (3) rearing sites, each site with a total of seven (7) rearing houses. The applicant determined that expanding an existing breeder farm would be the preferred as the property would already be in a disturbed state, to a certain degree, and it would logistically and financially be more viable to expand the existing farm than it would be to establish an entirely new farm on an undeveloped site. An undeveloped site would potentially also be less disturbed than an existing farm. No alternative properties have been identified since the suitability and feasibility of the project property for the proposed expansion is demonstrated by the following:

- The applicant owns the applicable farm portion;
- The site is already operational (consists of 3 rearing sites comprising of 7 rearing houses per site);
- The property is surrounded by agriculture activities; and
- The proposed development is in line with the Rustenburg Local Municipality Integrated Development Plan (IDP) 2021/2022.

Alternative sites on the same property

One additional rearing house will be added to the already existing rearing sites R1, R2 and R3. No alternative sites were therefore identified for the addition of the three new individual rearing houses. In order to find the most suitable sites for the construction and operation of 2x new rearing sites (R4/R5) and 2x new laying sites (L1/L2), the applicant went through a lengthy process to find the most suitable sites. Two alternative rearing sites and one alternative laying site were considered in the process.



Figure 4: Identified Sites for Proposed Expansion

Original Planned Sites	Description	Alternative Sites Identified	Description
R1	Rearing Site 1	R6	Rearing Site 6
R2	Rearing Site 2	R7	Rearing Site 7
R3	Rearing Site 3	L3	Laying Sites 3
R4	Rearing Site 4		
R5	Rearing Site 5		
L1	Laying Site 1		
L2	Laying Site 2		

According to the North West Biodiversity Sector Plan (NW BSP), 2015, the proposed sites falls within Critical Biodiversity Areas 1 and 2 (CBA 1&2) and Ecological Support Area 2 (ESA 2).

However, to take into consideration any threatened ecosystems that may be present on the project site, the following specialist studies were commissioned as part of the Environmental Impact Assessment process:

- Agriculture Sensitivity Verification;
- Aquatic Biodiversity Compliance Statement; and
- Terrestrial Biodiversity Site Verification Report.

These studies identified the risks and impacts of the proposed project. These have been evaluated in further detail in this report.

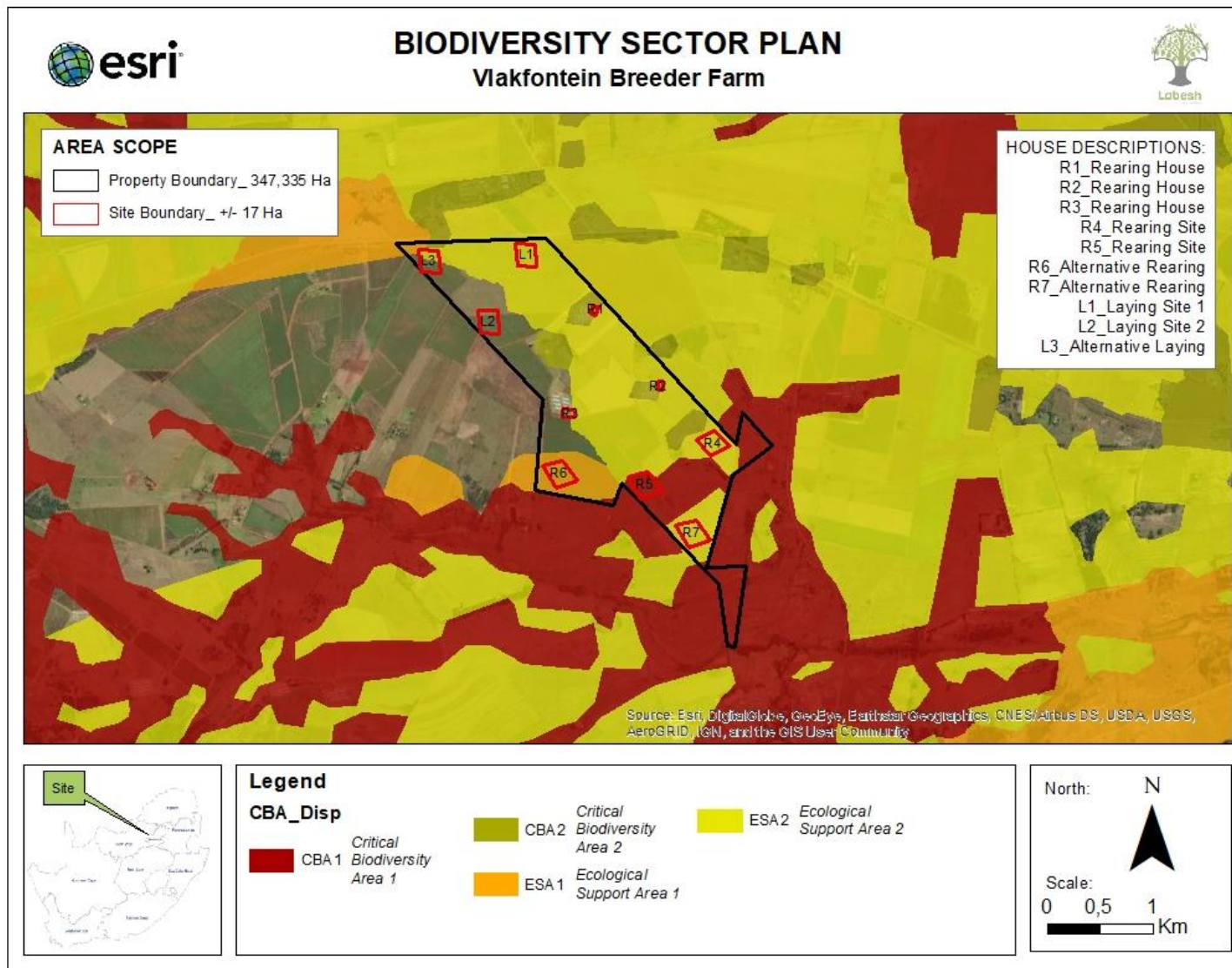


Figure 5: North West Biodiversity Sector Plan of the Project Site

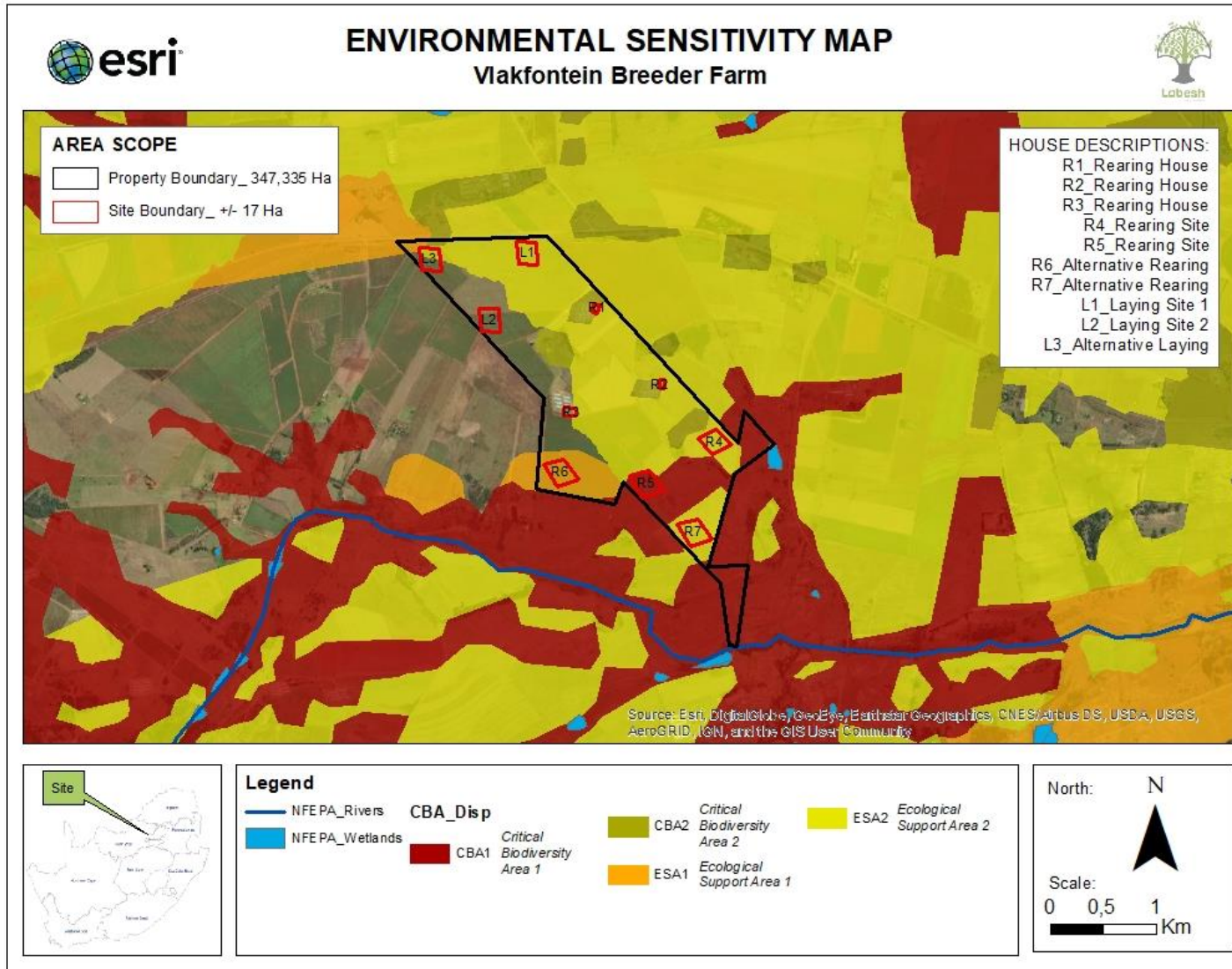


Figure 6: Sensitivity Map of the Project Site

8.1.2 Design and Layout

The site layout plan for the proposed expansion of the breeder farm was influenced by the following factors:

- Ensuring that there is enough space between the laying sites (at least 500m) in order to comply with biosecurity requirements;
- Ensuring that there is enough space between the rearing sites (at least 500m) in order to comply with biosecurity requirements;
- Ensuring that rearing and laying sites are separated relative distances from one another;
- Considering installation of new water lines;
- Considering installation of new water pipelines; and
- Considering the establishment of new road ways.

The preferred design and layout alternative is the layout as indicated within the site development plan for rearing houses R1, R2, R3, rearing sites R4 and R5; and laying sites L1 and L2. A second design and layout alternative was identified for both rearing and laying sites. The second alternative will be rearing sites R6 and R7; and laying site L3. The second alternative will however only be considered upon detailed specialist referral and inputs. See: *Figure 7: Site Development Plan*

8.1.3 Scheduling and Timing

The applicant plans to construct the additional rearing houses to the existing rearing sites R1, R2 and R3 as well as new rearing site 4 (R4), and laying sites L1 and L2, as first phase for the breeder farm expansion. Rearing site 5 will be constructed at a later date. Rearing sites R6 & R7 will be used as alternative sites and laying site L3 will be used as an alternative laying site. Laying farms are required for the birds (raised at the rearing sites) to lay eggs, and will the proposed expansion require cohesive timeframes for both rearing and laying site/houses construction and operation. No scheduling and timing alternatives could therefore be considered.

8.1.4 Scale and Magnitude

The applicant determined the number and size of rearing sites and laying sites that are desired for the proposed expansion of the Vlakfontein Breeder Farm. This is based on economies of scale and their production requirements. No scale and magnitude alternatives could therefore be considered.

8.1.5 “No-Go Option”

The No-Go Option would be where the proposed site is not used for the expansion of the Vlakfontein Breeder Farm. The No-Go Option is not considered to be a reasonable alternative as this would mean that the undeveloped project site is under-utilised in terms of its potential for agricultural use.

The negative environmental impacts expected by the proposed development can be mitigated to acceptable limits. The positive social impacts outweigh the negative impacts and the consideration of the “no-go” option can be justifiably dismissed as a sustainable alternative.

8.2 Public Participation Process undertaken in terms of Section 41 of the EIA Regulations, 2014

The following PPP was conducted for the proposed project:

- Identification of key Interested and Affected Parties (all adjacent landowners);
- Identification of key Stakeholders;
- Informing the key Stakeholders of the process by means of correspondence;
- Placement of a press notice in a local and/or provincial newspaper, informing the public of the process;
- Placement of site notices at the site; and
- Correspondence with I&APs and Stakeholders and the addressing of their comments

The following section of the report will be updated as the Public Participation Process progresses.

8.2.1 Identification and Registration of Interested and Affected Parties and Key Stakeholders

The table below lists adjacent landowners that were identified and notified (by means of hand delivery and/or email) of the proposed project.

List of Adjacent Properties identified (All adjacent landowners will automatically be registered as I&APs):

Farm Name
Remainder of Portion 10 of the Farm Bokfontein 385 IQ
Remainder of Portion 20 of the Farm Bokfontein 385 IQ
Portion 67 of the Farm Bokfontein 385 IQ
Portion 66 of the Farm Bokfontein 385 IQ
Remainder of Portion 1 of the Farm Bokfontein 385 IQ

Farm Name
Portion 12 of the Farm Platklip 40 IQ
Portion 1081 of the Farm Hartbeesfontein 38 IQ
Remainder of Portion 22 of the Farm Hartbeesfontein 38 IQ
Portion 30 of the Farm Hartbeesfontein 38 IQ
Portion 94 of the Farm Hartbeesfontein 38 IQ
Portion 78 of the Farm Hartbeesfontein 38 IQ
Portion 82 of the Farm Hartbeesfontein 38 IQ
Portion 69 of the Farm Hartbeesfontein 38 IQ
Portion 11 of the Farm Hartbeesfontein 38 IQ
Portion 96 of the Farm Hartbeesfontein 38 IQ
Portion 95 of the Farm Hartbeesfontein 38 IQ
Portion 16 of the Farm Cyferfontein 35 IQ
Portion 54 of the Farm Bokfontein 386 IQ
Portion 26 of the Farm Bokfontein 385 IQ
Portion 27 of the Farm Bokfontein 385 IQ
Portion 29 of the Farm Bokfontein 385 IQ
Portion 92 of the Farm Hartbeesfontein 38 IQ
Portion 28 of the Farm Bokfontein 385 IQ

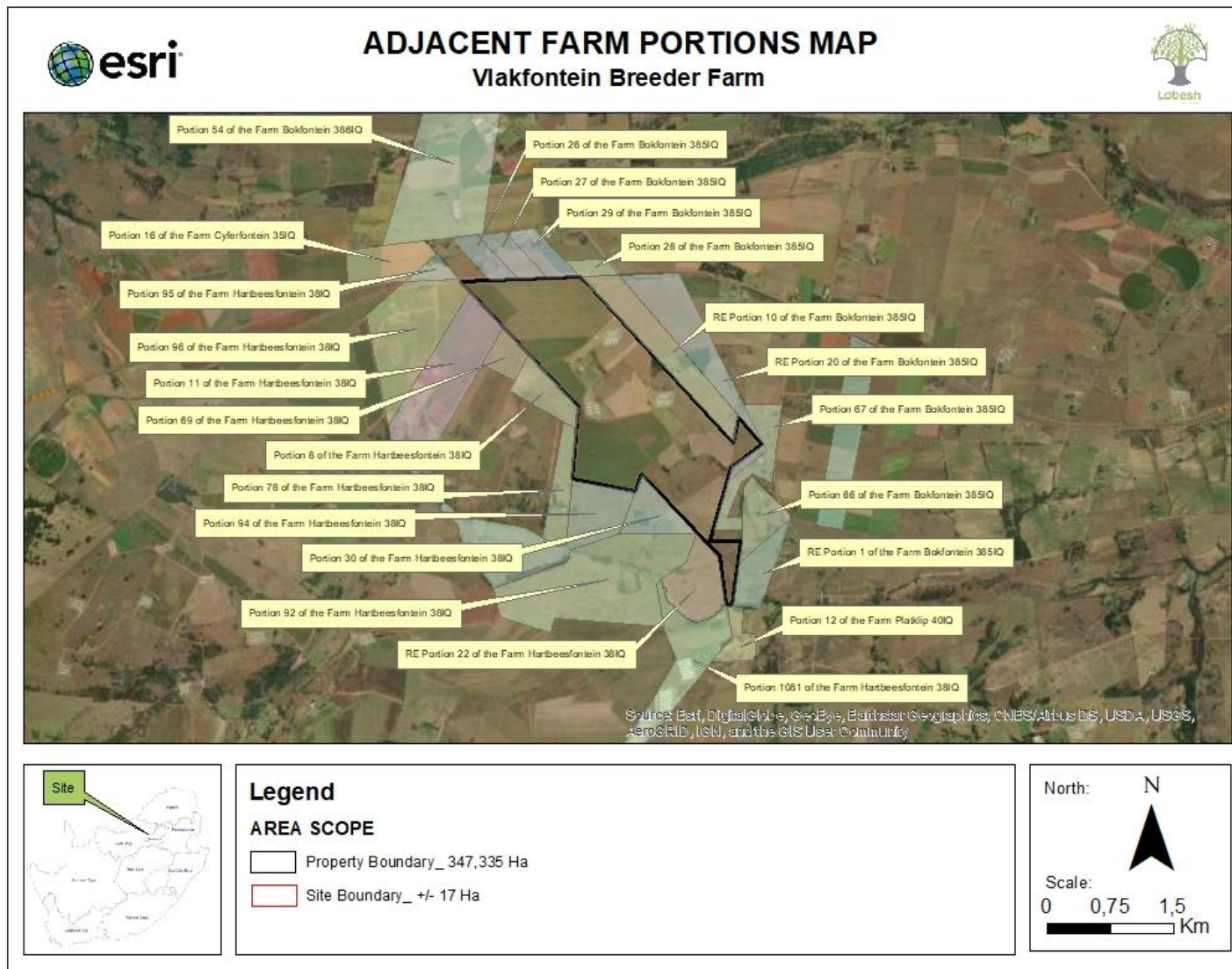


Figure 8: Adjacent Landowners

All organs of state that may have jurisdiction in respect of the proposed project and which were identified and notified (via email) were:

Department	Contact Person
Department of Human Settlements	Kgotso Rabanye Hitenaki Mhlongo
Department of Arts, Culture, Sports and Recreation	Ms N Bopela
Department of Public Works and Roads	Ms. H Pretorius Mrs. M Mfikwe
Department of Cooperative Governance and Traditional Affairs	Samantha Kanen Marcia Maseka
Department of Community Safety and Transport Management	Ms. Bothale Mofokeng
Department of Agriculture and Rural Development	Ms. Bonolo Mohlakoana
Department of Social Development	Mr. Relebohile Mofokane
Department of Health	Mr. OE Mongala
Rustenburg Local Municipality	Mr. Victor Makona (Municipal Manager)
Bojanala District Municipality	Pogiso Shikhwane (Municipal Manager)
SAHRA (South African Heritage Resources Agency)	SAHRIS Website

All organs of state that may have jurisdiction in respect of the proposed project are considered to be I&AP's.

The Interested and Affected Party Register is attached under Appendix C of this report.

For the initial Public Participation Process (notification of potentially Interested and Affected Parties), written notifications and Background Information Documents were distributed to the above mentioned list of identified Interested and Affected Parties. The notifications were sent via email, fax, registered post or hand delivered. Site notices were placed on the boundary of the project property. A newspaper advertisement was placed in the Beeld Newspaper, on the 12th of April 2022.

Proof of the above mentioned initial Public Participation Process is attached under Appendix C.

8.2.2 Summary of the issues raised by the Interested and Affected Parties and how the issues were addressed or incorporated into the Environmental Impact Assessment process

There were no issues received from any Interested & Affected Parties.

8.3 Environmental attributes associated with the alternatives considered – Environmental attributes of the proposed, project properties (the preferred alternative)

8.3.1 Geographical

Geology and Soil

According to the Geology Map (ArcGIS online), the site consists of Pretoria shale, slate and quartzite; Hekpoort lava; occasional diabase sills. Soil description for the proposed site identifies as plinthic catena: dystrophic and/or mesotrophic; red soils widespread, upland duplex and marginalitic soils rare.

Agricultural Sensitivity

The Environmental Screening Report generated by means of the web based Screening Tool dated 07/04/2022, shows a high agricultural sensitivity. A reconnaissance soil, land capability and land use assessment was done on 7 March 2022 by Rehab Green CC in order to verify the agricultural sensitivity of the 7 sites. It was found that 6 of the 7 sites had high agricultural sensitivity as indicated by the Screening Tool. However, due to insufficient effective soil depth and the current unutilized state of site R5, the agricultural sensitivity was rated as medium.

8.3.2 Physical

Rainfall

The project site is located approximately 16km west of Magaliesburg (Gauteng Province) and were climate and weather data for Magaliesburg used for the project site. The project site lies within a summer rainfall area with an average precipitation rate of 128.18mm from October to March. Winter rainfall is low with an average precipitation rate of 15.81mm between April and September (worldweatheronline.com).

Temperature

The warmest months for Magaliesburg (with the highest average maximum temperatures) are February and November which measured at 30°C. The month with the lowest average maximum temperature is July which measured at 18°C. The month that consists of the highest average minimum temperature is March which measured at 18°C. July is measured as the coldest month with the lowest average low temperature at 9°C (worldweatheronline.com).

Wind Direction

According to www.meteoblue.com, the prevailing wind direction for Magaliesburg is North, as indicated by the figure below. The prevailing wind direction has been determined from 30 years' hourly weather model simulations (from 1985 onwards) and the data have a spatial resolution of approximately 30km.

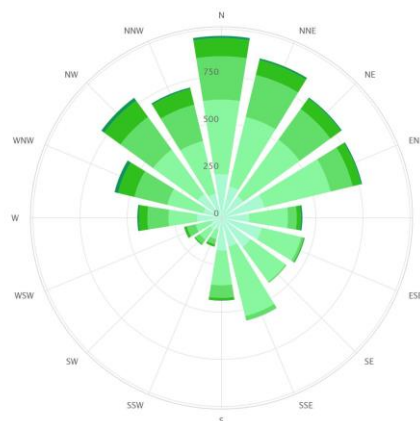


Figure 9: Magaliesburg Predominant Wind Direction

Wind Speed

The highest average maximum wind speed for Magaliesburg is experienced in November with a wind speed of 24.3 kmph (kilometres per hour). The lowest average maximum wind speed is experienced in May with a wind speed of 13.8 kmph. The most consistent wind speeds are experienced between March and July with wind speed averages ranging between 8.7 and 9.6 kmph (worldweatheronline.com).

Topography

The project site slopes downwards from north-west to south-east, with the elevation for the north-western part of the site lying at elevations of between 1610 and 1605masl (metres above sea level) and the south-eastern part of the site lying at elevations of between 1515 and 1510masl. This is also shown in the figures below.

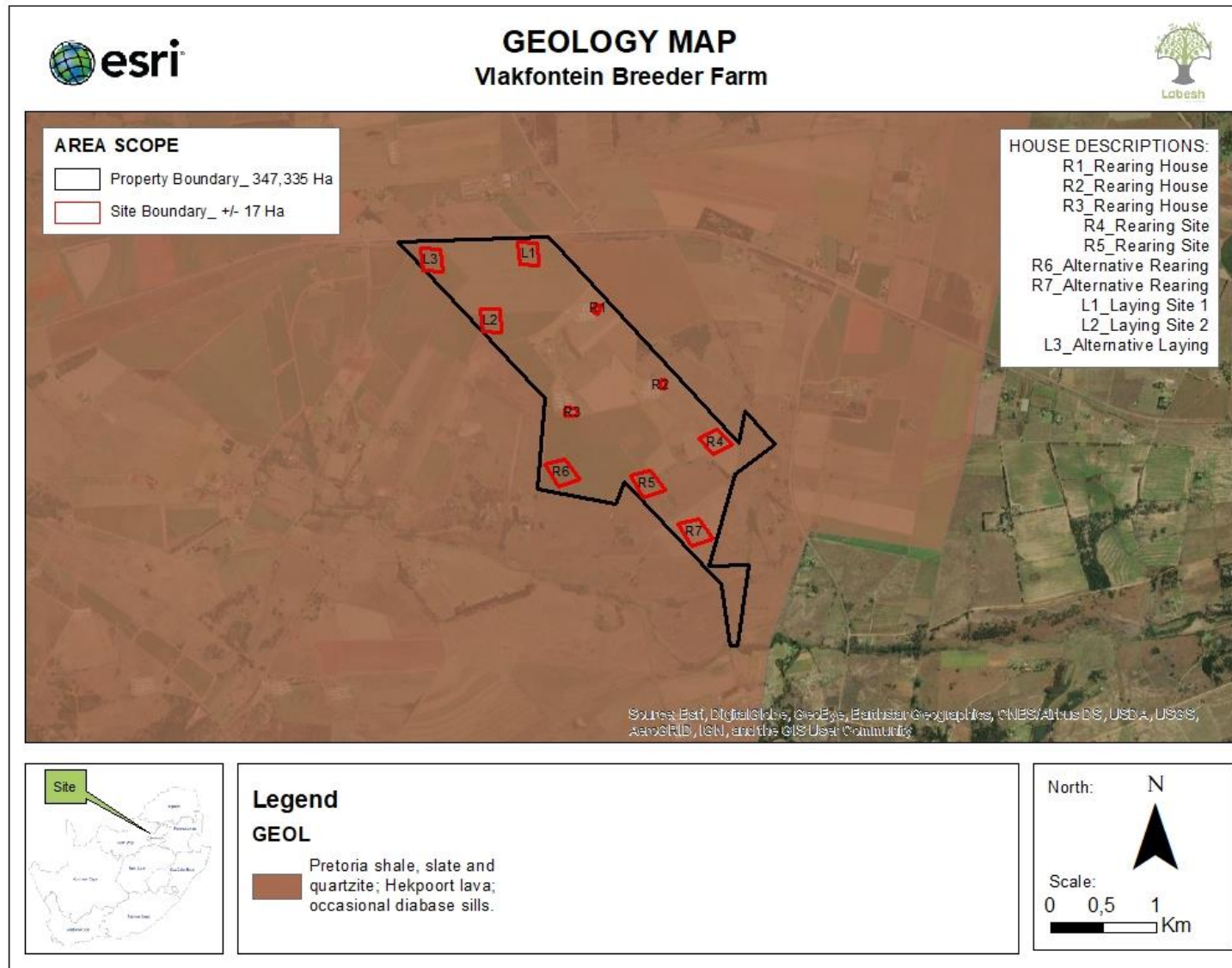


Figure 10: Geology Map of the Project Site

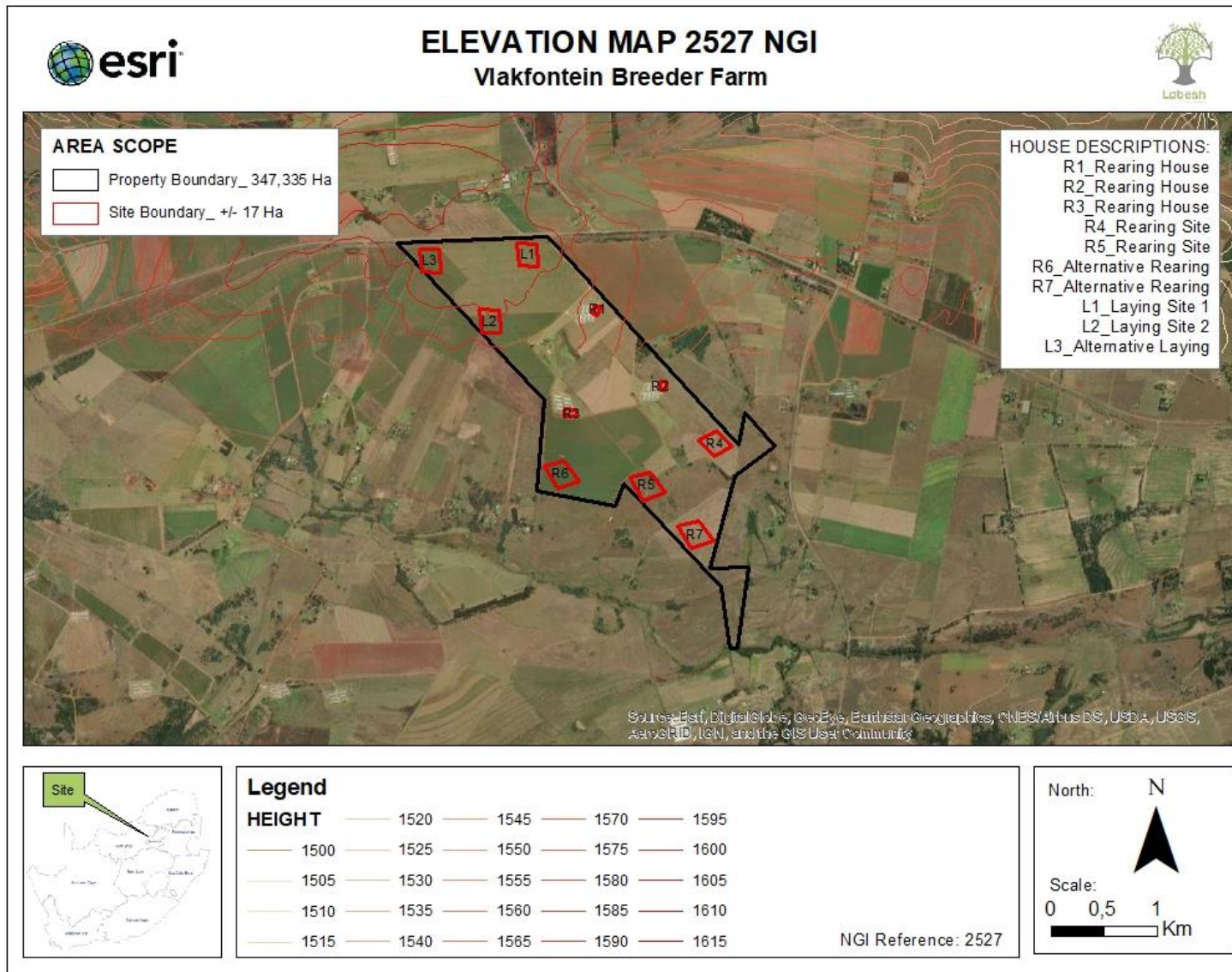


Figure 11: Elevation Map (NGI: 2527) of the project site

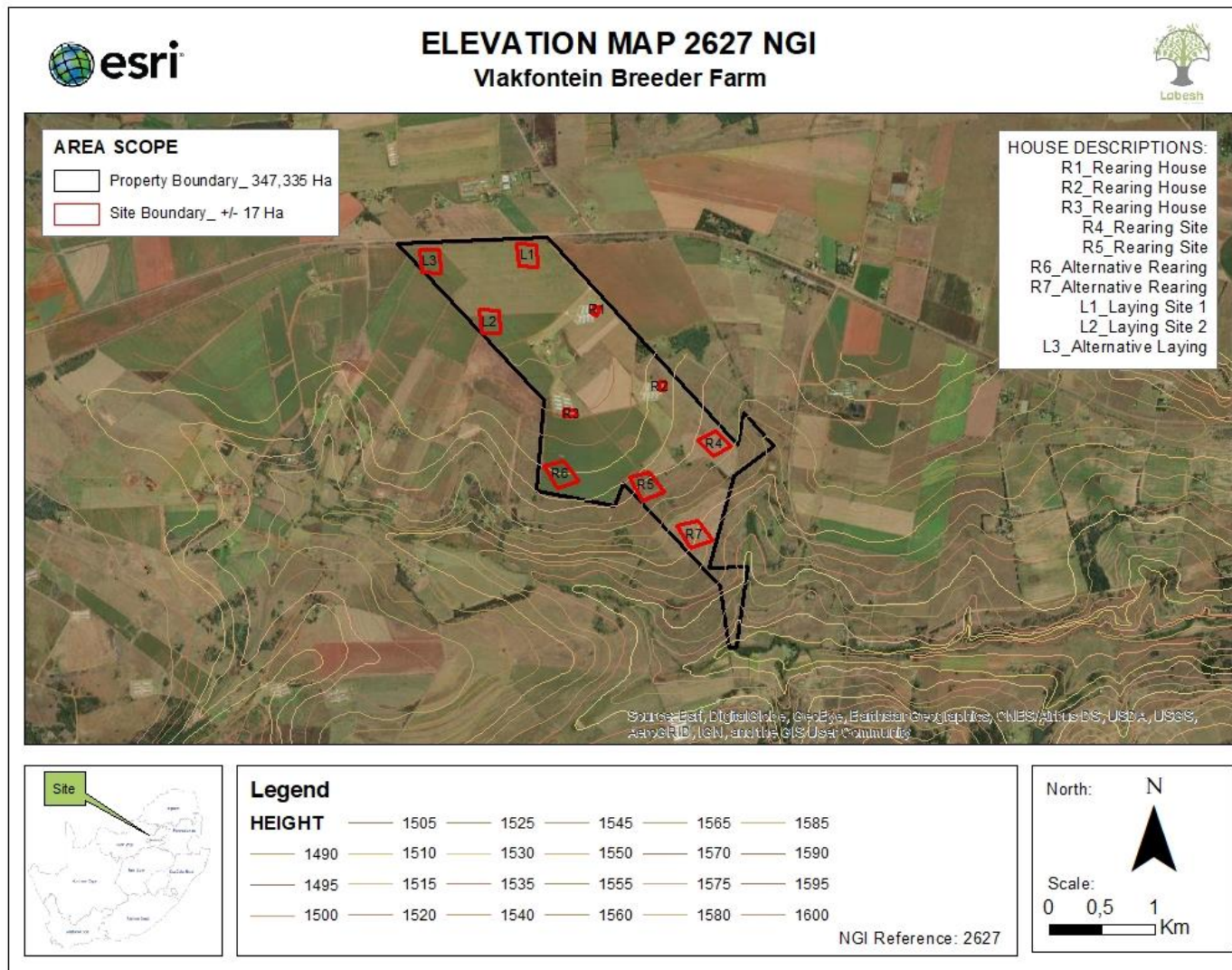


Figure 12: Elevation Map (NGI: 2627) of the project site

Biological Flora

A desktop assessment is provided in this section as a reflection of the historical state of the environment. The proposed project site lies within the Savannah Biome and is classified as Moot Plains Bushveld.

The Savannah biome is known to cover the Central Bushveld Bioregion of which seven vegetation types of the biosphere belong to. The seven vegetation types are the Marikana Thornveld, Norite Koppies Bushveld, Moot Plains Bushveld, Zeerust Thornveld, Gold Reef Mountain Bushveld, Gauteng Shale Mountain Bushveld and the Andesite Mountain Bushveld. The Savannah biome is characterised by woody vegetation and a grass dominated herbaceous layer. Depending on the local conditions, trees are known to form semi-open to closed thickets or woodlands. Trees can range from short deciduous bush cover to medium ($\pm 5\text{m}$ tall) tree cover of both deciduous and evergreen trees. Some of the vegetation types are dominated by thorny trees species such as the *Acacia* spp.

The Moot Plains Bushveld occurs mainly as a broad band on the rolling plains, a narrow band on the hillsides to the north and south of the Magaliesberg range. The vegetation for the Moot Plains Bushveld is characterised by open to closed low-growing thorn savannah dominated by *Acacia* in the bottomlands and plains, and by woodlands of varying heights and densities on the lower hillsides. Conservation efforts are considered important for this vegetation type as it is classified as *vulnerable*. Although 13% of the vegetation type is officially conserved within the Magaliesberg Protected Environment there is a growing threat by the increase of urban and build-up areas accompanied by intensification of cultivation, with 28% already transformed (magaliesbergbiosphere.org.za).

National Web Based Environmental Screening Tool

According to the Environmental Screening Report (2022), attached under Appendix E, the site has a "medium sensitivity" in terms of the Plant Species Theme and a "very high sensitivity" in terms of the Terrestrial Biodiversity Theme.

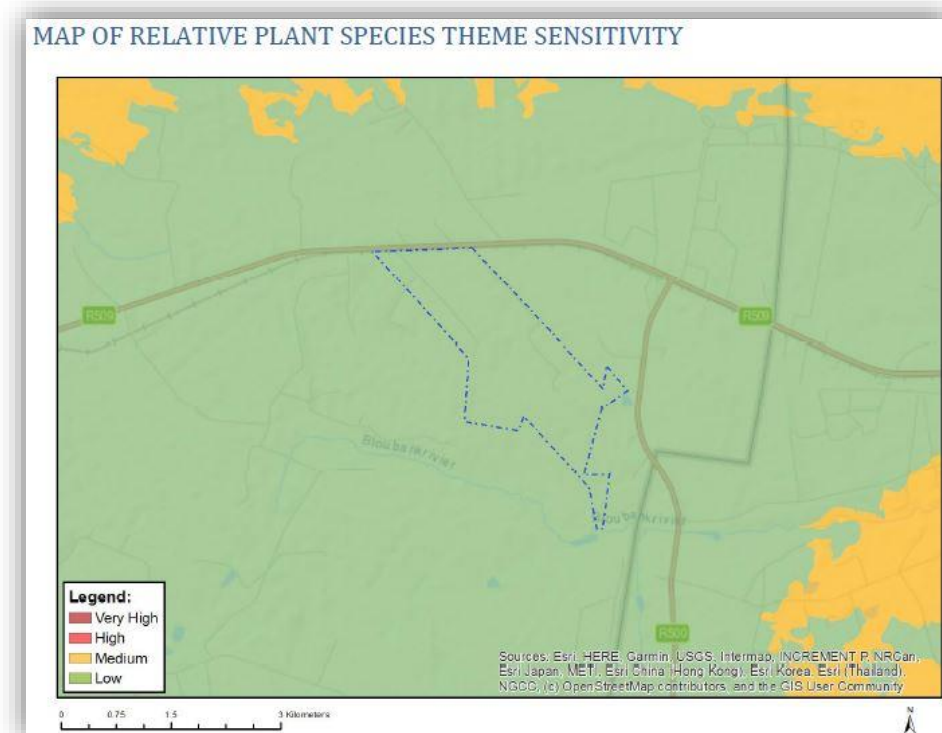


Figure 13: Plant Species Sensitivity Map

Terrestrial Biodiversity Site Verification Report by W. de Frey from EkoInfo CC in March 2022

A site verification survey was done in terms of the national environmental screening tool with regards to the terrestrial biodiversity theme for the proposed site. The site visit was done on 7 March 2022.

Each of the seven sites earmarked for the proposed development was visited and ground (and aerial based) remote images taken. It was found that seven sites are located within an agriculture landscape. On a regional scale it is associated with the Least Concern (LC) Moot Plains Bushveld and on a provincial scale, Ecological Support Area (ESA) occurs alongside the eastern boundary. According to the provincial dataset critical biodiversity areas (CBAs) are in the vicinity of the seven sites, however landcover 2014 datasets clearly indicates that these areas are cultivated land.

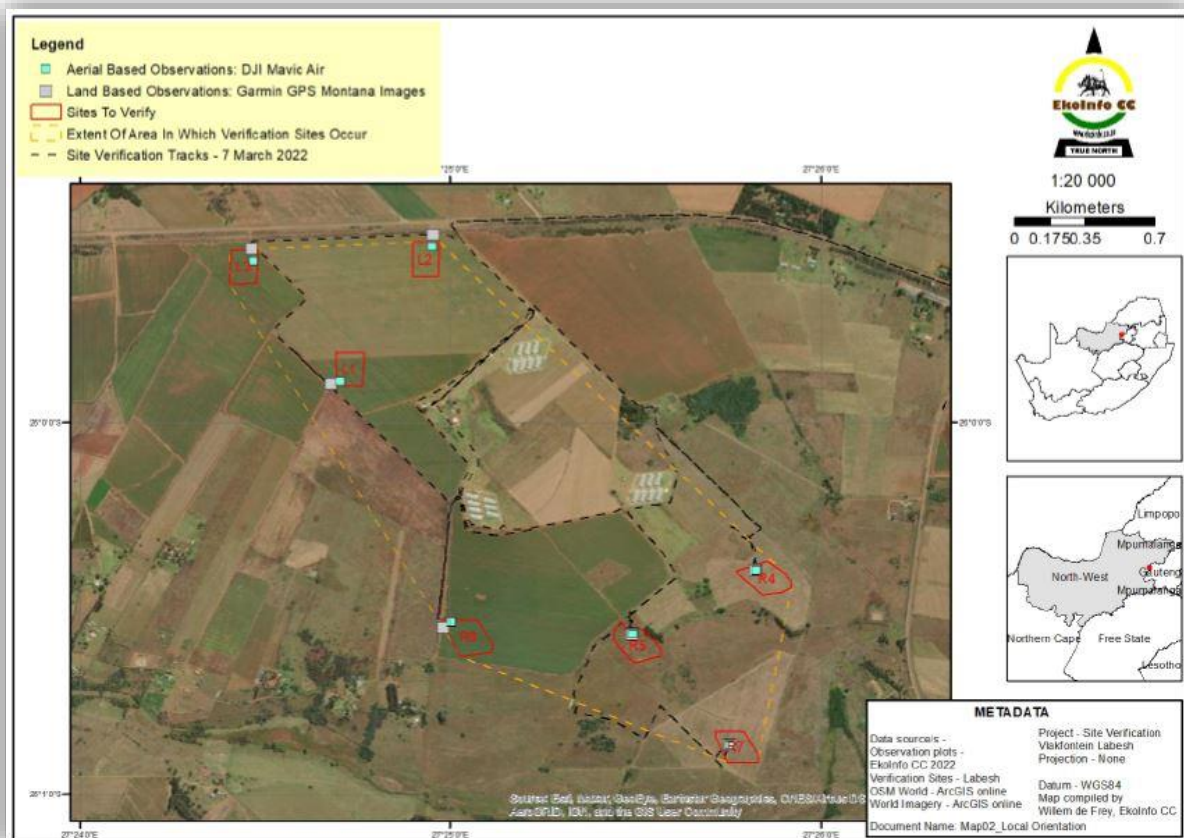


Figure 15: Local orientation of the seven proposed expansion sites (EkoInfoCC, 2022)

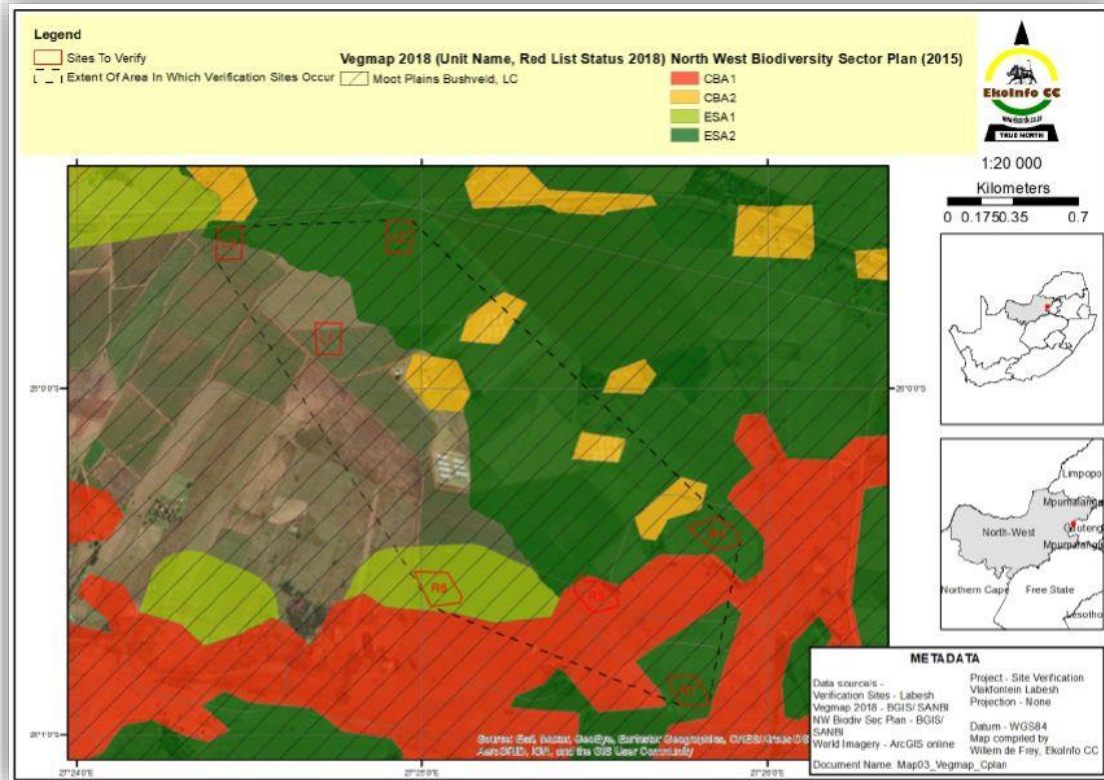


Figure 16: Regional vegetation (2018) and North West Biodiversity Sector Plan (2015) associated with the seven sites (EkolInfo, 2022)

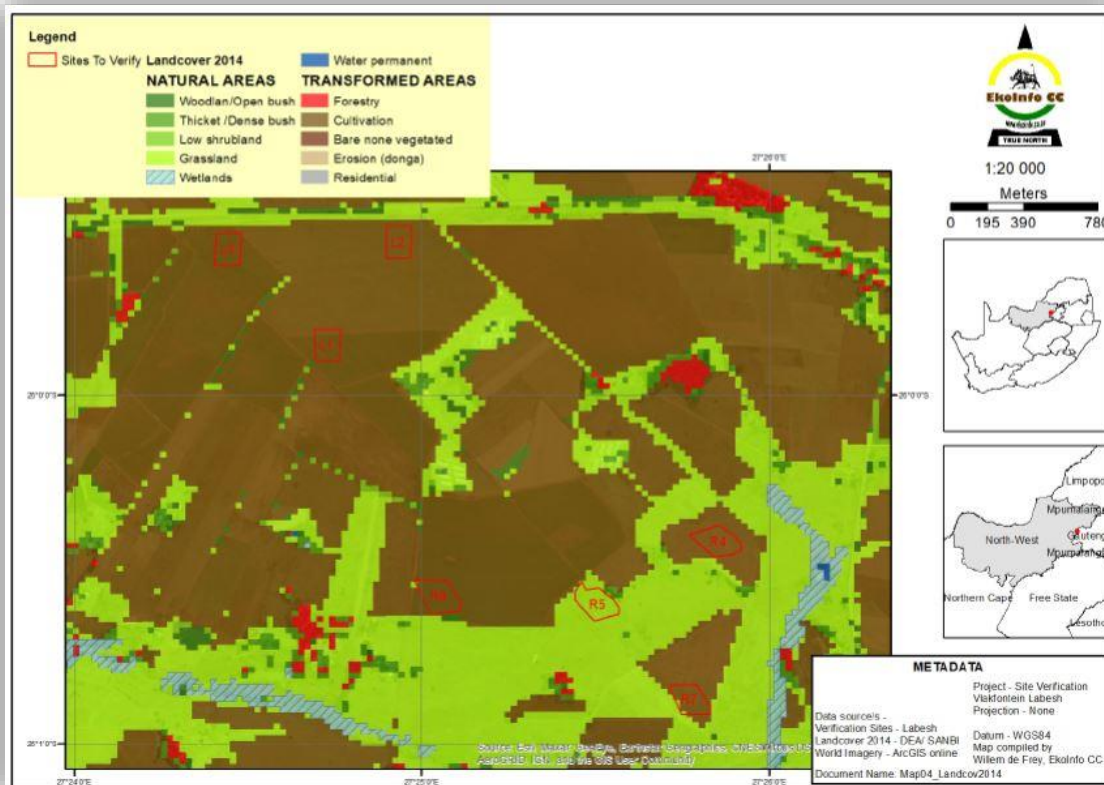


Figure 17: Land cover (2014) associated with the seven sites (EkolInfo, 2022)

Evidence from digital images taken at the seven development sites (L1, L2, L3, R4, R5, R6 and R7) shows that only rearing site five (R5) contains natural vegetation. The other six remaining sites are either covered by soya beans or maize. Observations confirmed the agriculture nature of the landscape, with the remaining natural areas most probably used for grazing.

The land change analysis based on land cover data from 1995, 2000 and 2014 clearly shows that laying sites one, two and three (L1, L2 & L3) are located in an area that has been cultivated since 1995. Therefore, these areas can clearly not represent ESAs as shown in the figure below. Rearing site five (R5) is associated with an area that has been persistently natural vegetation since 1995. The northern section of the site was most probably incorrectly classified as cultivation in 1995, because data from 2000 and 2014 both classifies the areas as being associated with natural environment. It might imply that the northern section is secondary, but legislation indicates that if an area has not been ploughed for more than 10 years it is considered to be virgin soil. Both rearing site four and seven (R4 & R7) are located in areas classified as currently transformed – cultivated land. This implies that the NWBSP of 2015 incorrectly classified these areas as natural with ESA and CBA status, as these areas were correctly classified as transformed – cultivated land in 2014 already.

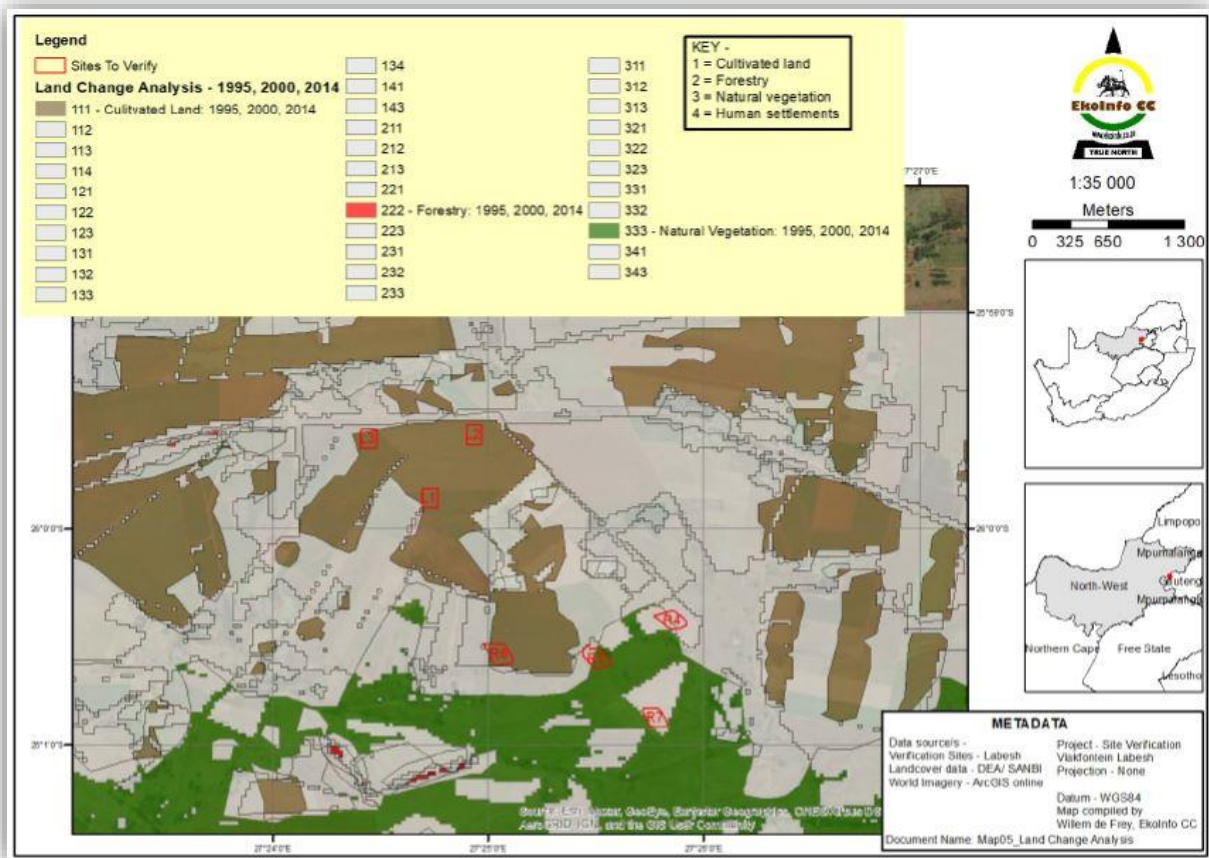


Figure 18: Land change results based on land cover data from 1995, 2000 and 2014 (EkoInfo, 2022)

The figure below confirms the transformed nature of laying sites one, two and three (L1, L2 & L3) and rearing site six (R6) with 100% confidence. Rearing sites four and seven (R4 & R7) had more recently been transformed from either primary grassland or secondary grassland, but the current survey confirmed the transformed status. Therefore, the only untransformed site with mainly primary vegetation is rearing site five (R5). Twenty plant species were recorded within the plot sampled within R5. A total of seven grasses, 12 forbs and one woody species were identified. Nine of the 12 forb species are associated with disturbance, whether overgrazing or historic cultivation. No climax grass species were

recorded in the plot surveyed, with the dominant species being associated with disturbance – *Hyparrhenia hirta* and *H. filipendula*.

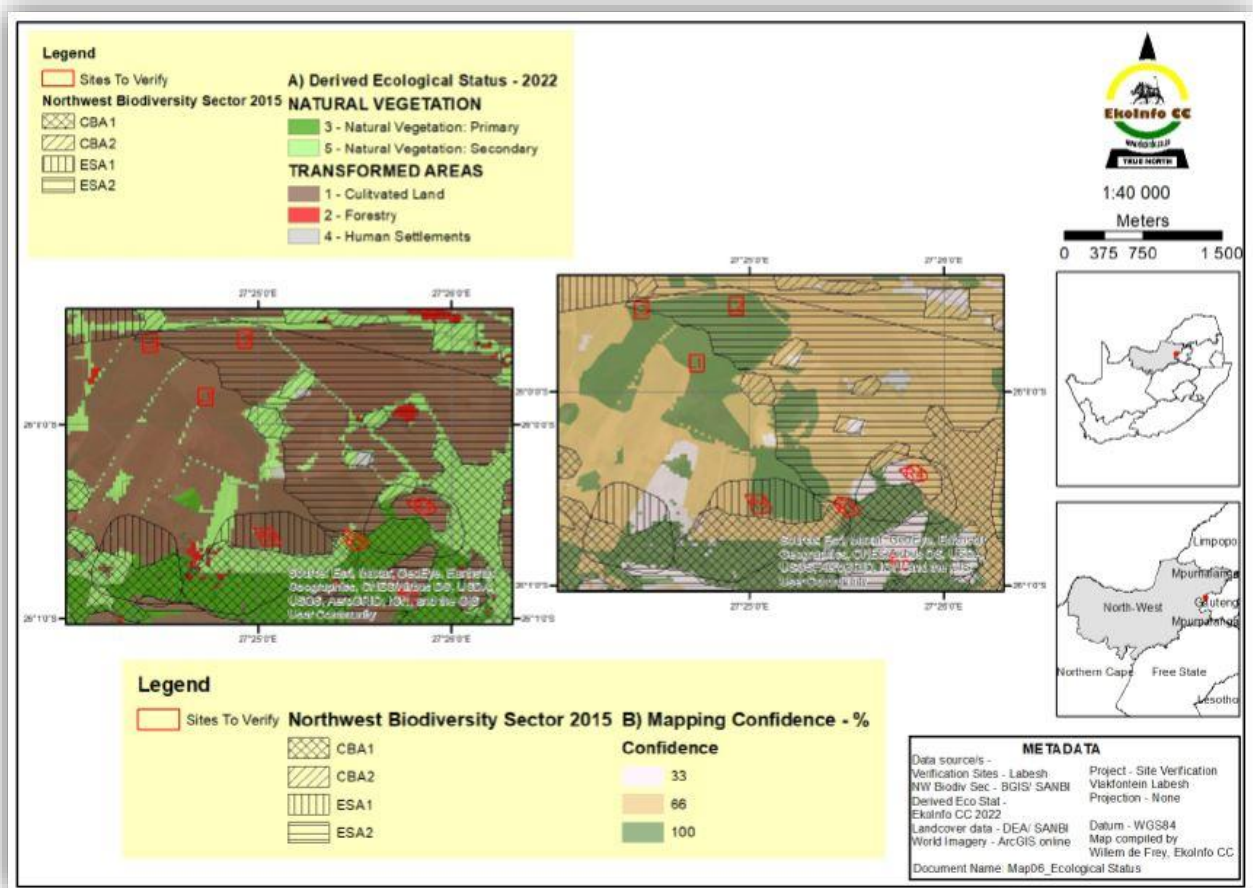


Figure 19: Current ecological status derived from the available land cover data and site visit (EkolInfo, 2022)

In conclusion:

Only rearing site five (R5) is located within a patch of natural vegetation, which based on available area, presents persistent primary vegetation. It is therefore recommended that alternative sites to rearing site five (R5) is used for the proposed development. This is recommended in support of the generally ecological function which is provided by these remaining patches of natural vegetation in the landscape such as pollinator habitat, seed dispersal areas and refuge for local wildlife.

Fauna

A desktop assessment is provided in this section as a reflection of the historical state of the environment. The Savannah biome is famous for its wild life consisting of animals such as the lion, leopard, cheetah, elephant, giraffe, zebra and numerous bird species. Large game reserves such as the Kgalagadi Transfrontier Park and the Kruger National Park are found within this region (planet.uwc.ac.za). Vegetation within this biome is fostered through grazing, browsing, pollinating, nutrient cycling and/or seed dispersal. Small invertebrates such as grasshoppers and caterpillars are some of the main consumers of understory foliage and termites are known to consume dead plant matter, including wood. Animals within the Savannah are adapted to surviving seasonal variations in their food supply. Many of the bird and mammal species are seasonal migrants, occupying the Savannah biome during and immediately after wet season when

vegetation is lush and food available in abundance. Afterwards the animals move elsewhere as the plants disappear later in the dry season (britannica.com).

National Web Based Environmental Screening Tool

According to the Environmental Screening Report (2022), attached under Appendix E, the site has a "high sensitivity" in terms of the Animal Species Theme.

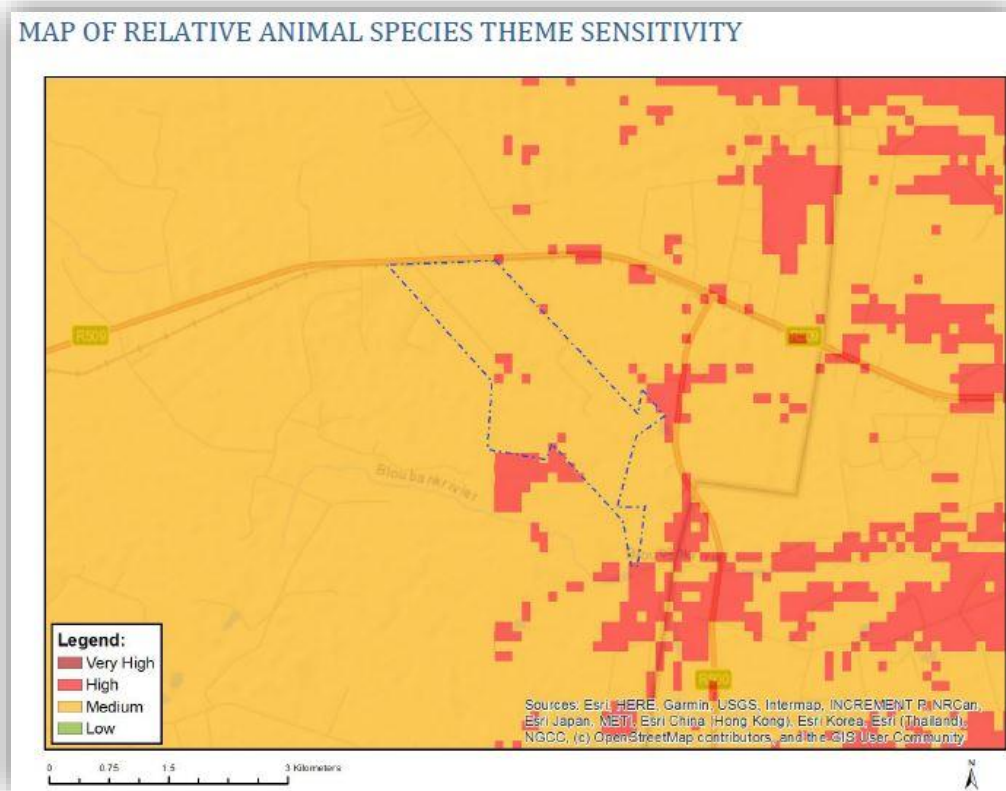


Figure 20: Animal Species Sensitivity Map

As per the report the following sensitivity features were identified:

- High: Aves – *Tyto capensis*
- Medium: Aves – *Tyto capensis*
- Medium: Mammalia – *Crocidura maquassiensis*
- Medium: Mammalia – *Dasymys robertsii*
- Medium: Mammalia – *Hydricitis maculicollis*

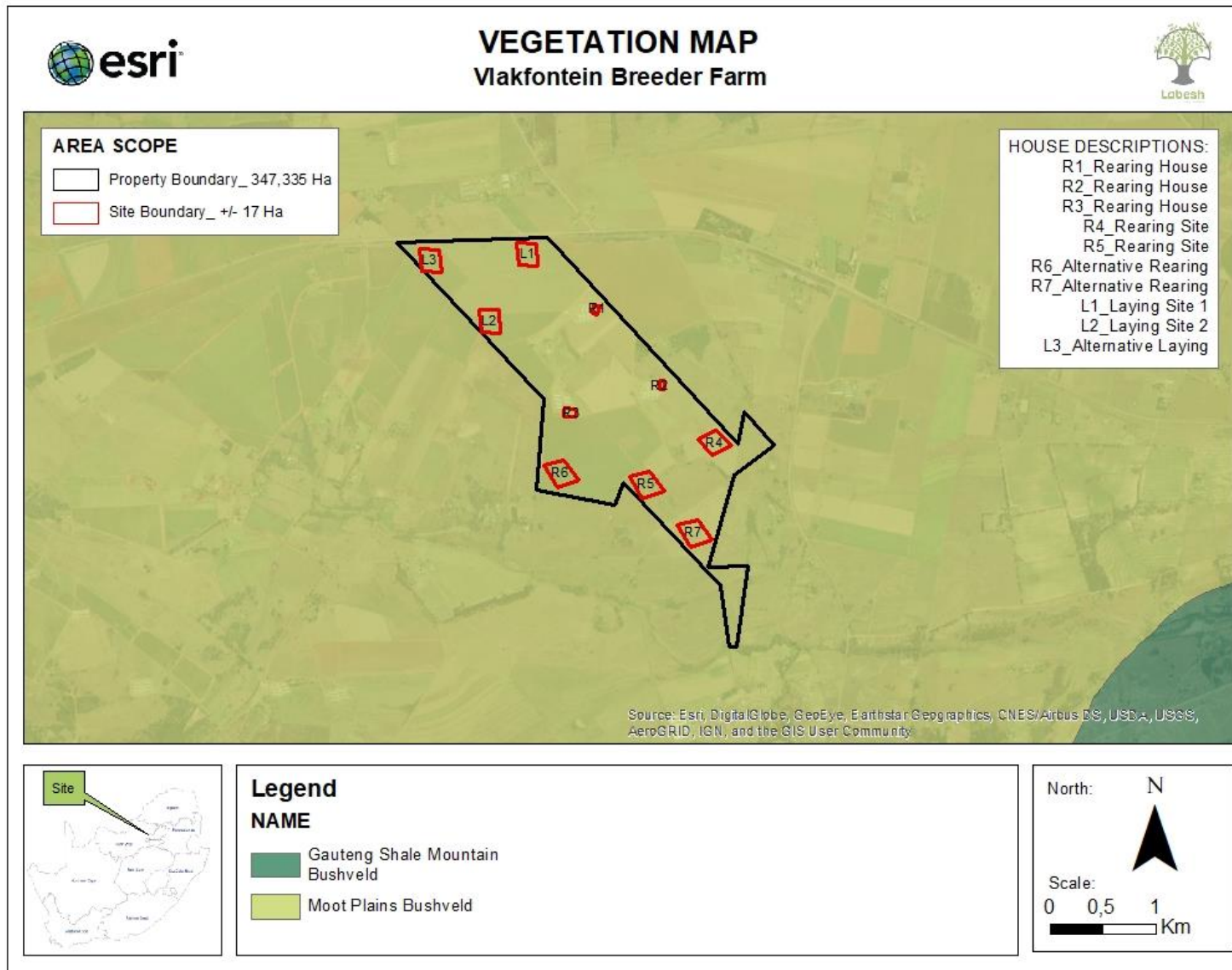


Figure 21: Vegetation Map of the Project Site

Hydrology

The proposed project site lies within the A21F quaternary catchment area. The depth to groundwater is 15-30m below ground. The recharge rate is 10-50mm/annum (Council for Geoscience, 2011). The aquifers below the site are classified as minor aquifers (DWA, 2012).

Wetlands, watercourses and groundwater

Wetlands are defined in the National Water Act, 1998 (Act No. 36 of 1998) as land in transition between terrestrial and aquatic systems. The water table is usually at or near the surface or the land is periodically covered with shallow water. Wetlands make up a mere 2,4% (300 000 wetlands remaining) of the country's area, but 48% of the wetland ecosystem types are critically endangered. Wetlands play a crucial role in amongst others flood control, drought relief, water storage, sediment and nutrient retention, water purification, erosion control, food security and sustained stream flow and is it therefore crucial to support and protect wetlands (and watercourses) to acceptable limits/standards (Department of Environmental Affairs, 2021).

According to the Hydrology Map (ArcGIS online), no NFEPA wetlands or NFEPA rivers are present on the proposed project site. However, some artificial wetlands and the Bloubank river were identified in close proximity to the proposed project site. The closest wetland (artificial seep) is east of the proposed project site and lies adjacent to the proposed project site. Artificial unchanneled valley-bottom wetlands can be found on the south side of the proposed project site at a distance of ± 40 m. The Bloubank river is located south of the proposed project site and runs adjacent to the proposed site.

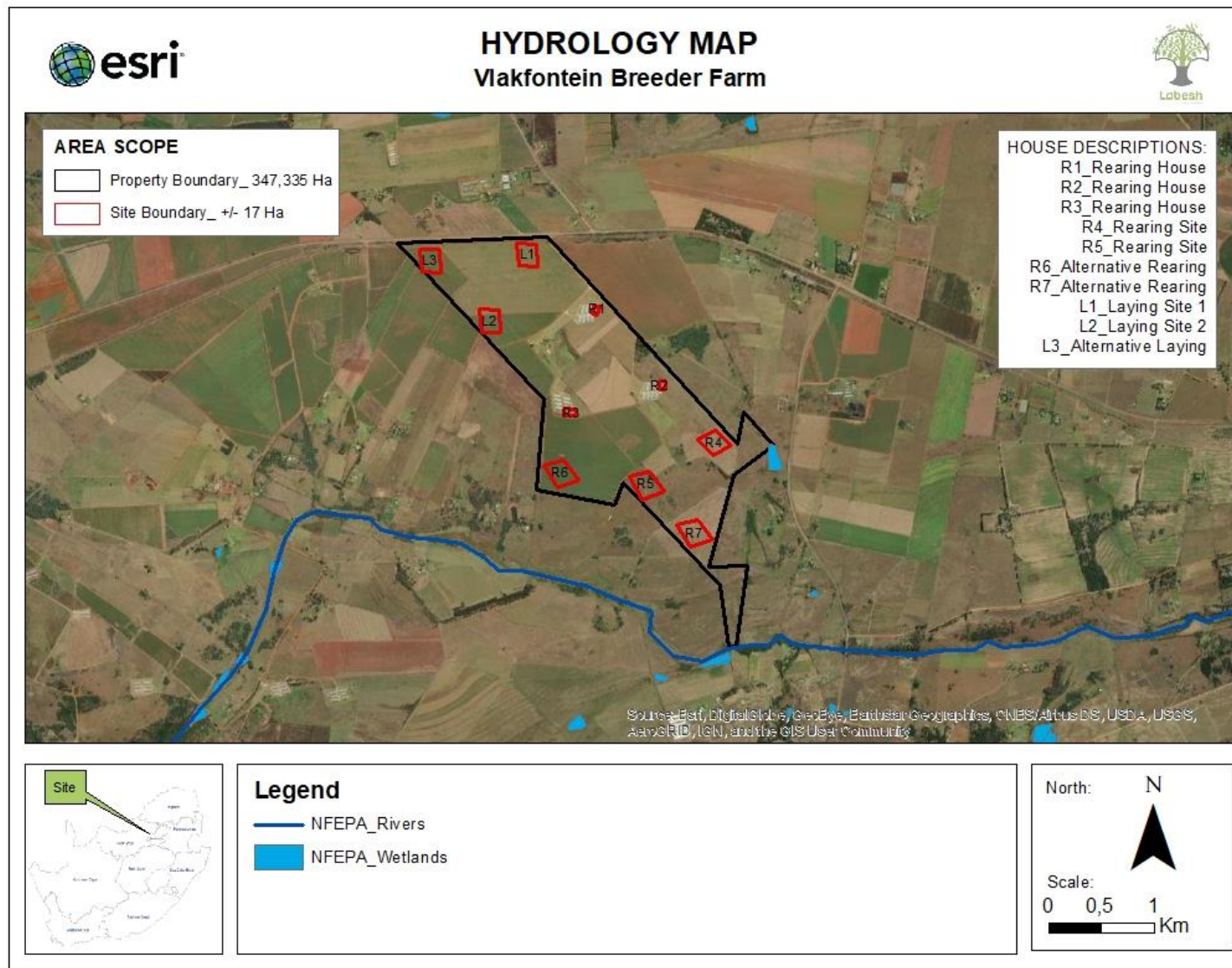


Figure 22: Hydrology Map of the Project Site and Surrounding Area

National Web Based Environmental Screening Tool

According to the Environmental Screening Report (2022), attached under Appendix E, the site has a "very sensitivity" in terms of the Aquatic Biodiversity Theme.

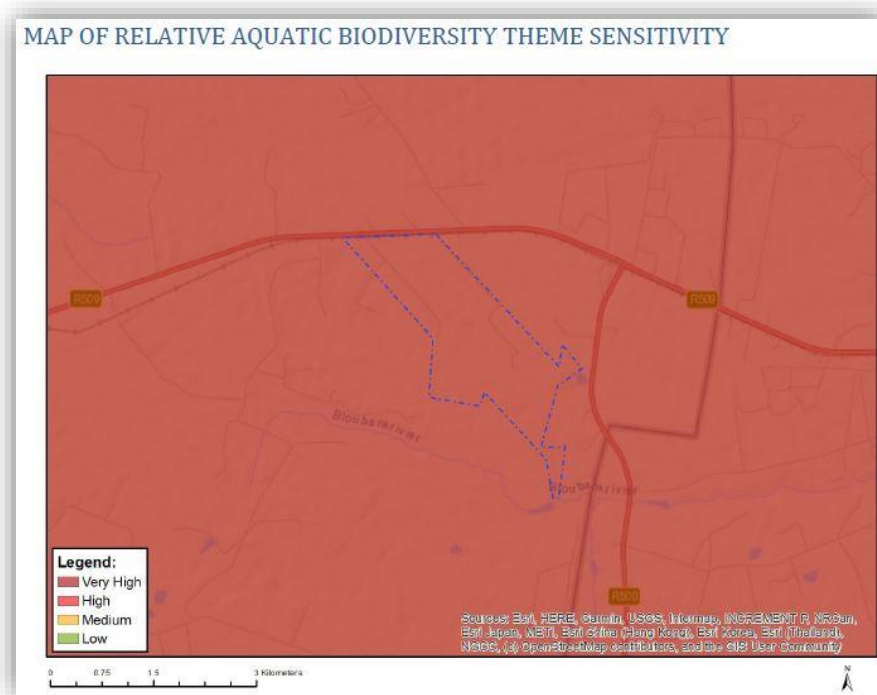


Figure 23: Aquatic Biodiversity Sensitivity Map

A Site Sensitivity Verification and Aquatic Biodiversity Compliance Statement was conducted by Mr. Marco Alexandre from Ecotone Freshwater Consultants CC in March 2022 in order to confirm the aquatic site sensitivity and is discussed in detail below.

Site Sensitivity Verification and Aquatic Biodiversity Compliance Report by M. Alexandre from Ecotone Freshwater Consultants CC in March 2022

A site sensitivity verification and aquatic biodiversity compliance study was done with the aim to provide an aquatic biodiversity compliance statement as required for the environmental authorisation process. The field assessment was carried out on the 7th of March 2022.

It was discovered that the proposed sites and immediate catchments are impacted upon by anthropogenic activities that is mainly associated with agricultural crops (mainly crops) and animal production. Three main watercourses were identified in the surrounding catchments which includes a channelled valley bottom to the east of rearing sites four and seven (R4 & R7), an ephemeral drainage line north of rearing site seven (R7) and the Bloubank river to the south of the study area. See Figure 24 below for an indication of the three main watercourses identified. Photographs are also provided below.

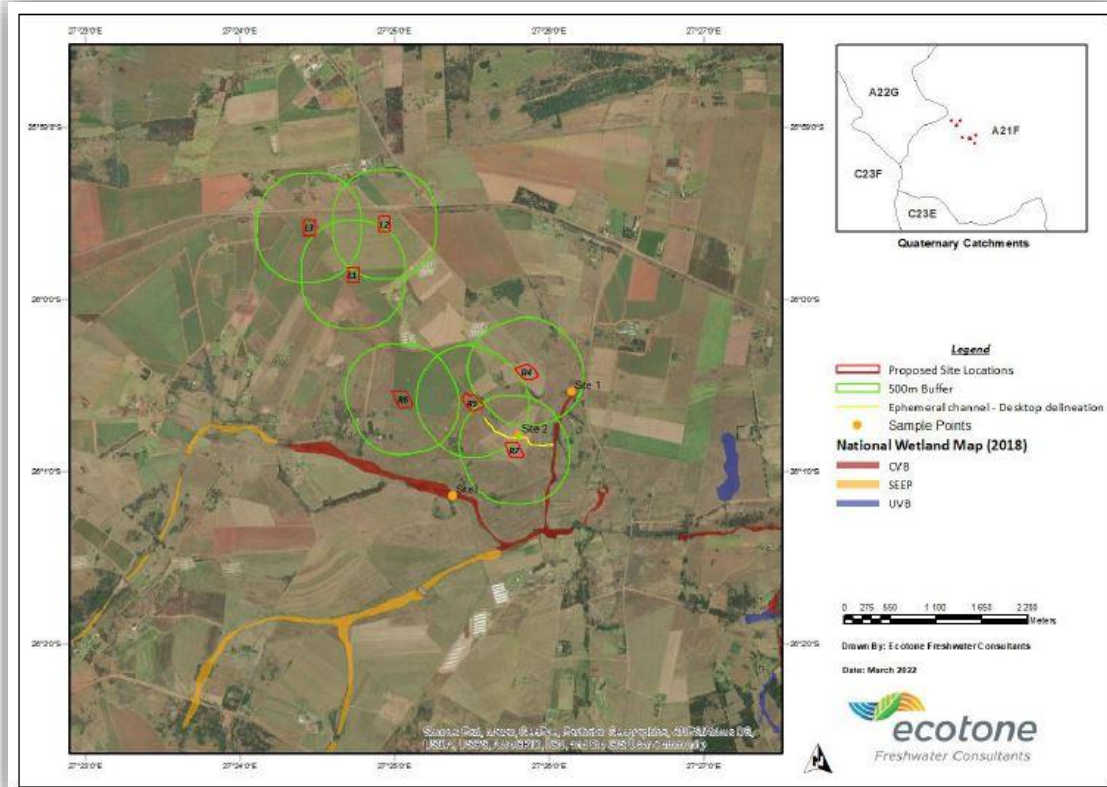


Figure 24: Wetland areas according to the National Wetland Map 5 (Ecotone, 2022)



Figure 25: Photographs taken at Site 1, CVB (Ecotone, 2022)



Figure 26: Photographs taken at Site 2, ephemeral drainage line (Ecotone, 2022)



Figure 27: Photographs taken at Site 3, located on the Bloubank River (Ecotone, 2022)

Findings from the field survey conducted on the proposed site confirmed that no watercourse features are present within either of the seven proposed site locations. The soil investigation also did not highlight wetland soils as the sites are associated with Hutton, Shortland and Mayo soil types. The majority of the surrounding catchments show indications of anthropogenic disturbances associated mainly with agricultural activities.

Watercourses were however identified within a 500m radius of proposed rearing sites four, five and seven (R4, R5 & R7). Sample points were investigated within the watercourses and in-situ water quality was assessed where possible. Overall, the study area was characterized by low to moderate salt loads with circumneutral pH values.

Wetlands are not delineated within the 500m radius outside of the seven sites (which falls outside of the scope of work for the aquatic study performed). A separate Government Notice (GN) 509 risk matrix protocol study should be performed in order to obtain authorisation for Section 21(c) and (i) water use activities.

In conclusion:

- No waterfeatures were identified within any of the proposed seven sites.
- Watercourses were identified within 500m of rearing sites four, five and seven (R4, R5 & R7).
- The Bloubank rivers situated south of the study area, and the desktop PES for the system is considered to be largely modified (D category). This means that a large loss of natural habitat, biota and basic ecosystem functions have taken place.
- The ephemeral drainage line appears to be located approximately 45m north of rearing site seven (R7). This is regarded as sufficiently far away to mitigate new impacts (such as stormwater run-off for the new rearing facilities by functioning as a buffer between the watercourse and proposed development.
- The confirmed absence of any watercourse features within the seven proposed site locations, a minimum distance of roughly 45 m between a watercourse and the nearest site and the transformed nature of surrounding catchments, provides sufficient motivation that the sites have low sensitivity with regards to the aquatic biodiversity.
- Despite no features being identified within the proposed site locations, watercourses were however identified within a 500m radius of rearing sites four, five and seven (R4, R5 & R7). Therefore, a wetland study will be required that includes a GN 509 risk matrix protocol for Section 21(c) and (i) water use activities.

8.3.3 Social

Rustenburg Local Municipality Social Statistics (Rustenburg Local Municipality IDP 2021/2022)			
Population Number	2017		Average Annual Growth (2007-2017)
	645 000		3,05%
Projected Numbers for 2022	700 000		
Male to Female Ratio	2017		
	Males	Females	
	54,21%	45,79%	
Number of Households	2016		
	262 576		
Levels of Education (2016)	Grade 0-12	N1-N6	Post-matric Studies
	407 004	7 659	35 625

The proposed project site is located within the Rustenburg Local Municipality in the Bojanla District Municipality, North West Province. According to the 2017 statistics, Rustenburg had a population of approximately 645 000, with overall population growth of 3,05% from 2007 to 2017. It was also estimated that Rustenburg's population will measure at around 700 000 individuals in the year 2022. This means an average growth rate of 1,7% between 2017 and 2022 (Rustenburg IDP, 2021/22).

Rustenburg Local Municipality consisted of a fairly stable population with a male to female ratio of 54,21% males to 45,79% females in 2017. The number of households within the municipality as surveyed in 2016 was at 262 576. Levels of education within the municipality indicated that 407 004 individuals received schooling (from Grade 0 to Grade 12), 7659 individuals were acquiring an N1-N6 qualification and 35625 were partaking in post-matric studies. According to the 2016 survey, about only 176 349 individuals had a Grade 8 to Grade 11, and only 144 567 made it to Grade 12 (Rustenburg IDP, 2021/22).

8.3.4 Economic

Rustenburg Local Municipality is one of North West Province's largest and most wealthiest municipalities. This local municipality contributes to more than 70% of the district GDP (Gross Domestic Product) and approximately 40% of the provincial GDP. The municipality is the largest producer of platinum with approximately 70% of the world's platinum production (followed by Russia and Canada). Despite the municipality's policy to increase sector diversification, the performance of the mining industry will continue to influence local economic prospects for the foreseeable future (Rustenburg IDP, 2021/22).

8.3.5 Unemployment and Employment

The unemployment rate for Rustenburg Local Municipality was calculated at 26,4% in the 2011 census (Rustenburg IDP, 2021/22).. According to the North West Provincial Development Plan 2030 (2013), the unemployment rate within the province should decrease from 24% in 2010 to 14% in 2020 and to 6% by 2030. This requires an additional 770 500 jobs.

8.3.6 Archaeological and Cultural Heritage

It is not expected for the proposed development to have an impact on archaeological or cultural heritage of the area. The proposed development entails the removal of approximately 17ha of indigenous vegetation. The project property is approximately 348ha (3 480 000m²) in total.

According to the National Heritage Resources Act, 1999 (Act No. 25 of 1999), developments that will change the character of a site by more than 5 000m² must be brought under the attention of the South African Heritage Resources Agency (SAHRA). Such developments may then require a Heritage Impact Assessment to be conducted (as required by SAHRA). The part of the project property (the site) that will be changed as part of the proposed development is more than 5 000m² and a Phase 1 Heritage Impact Assessment may be required for the project site. SAHRA has, however, been notified of the proposed development as part of the general public participation process, seeing as SAHRA is considered to be an Interested and Affected Party of the proposed project, irrespective of the fact that a Heritage Impact Assessment is not required.

The Environmental Screening Report (2022), attached under Appendix E, shows a "low sensitivity" on the Archaeological and Cultural Heritage Theme Sensitivity.

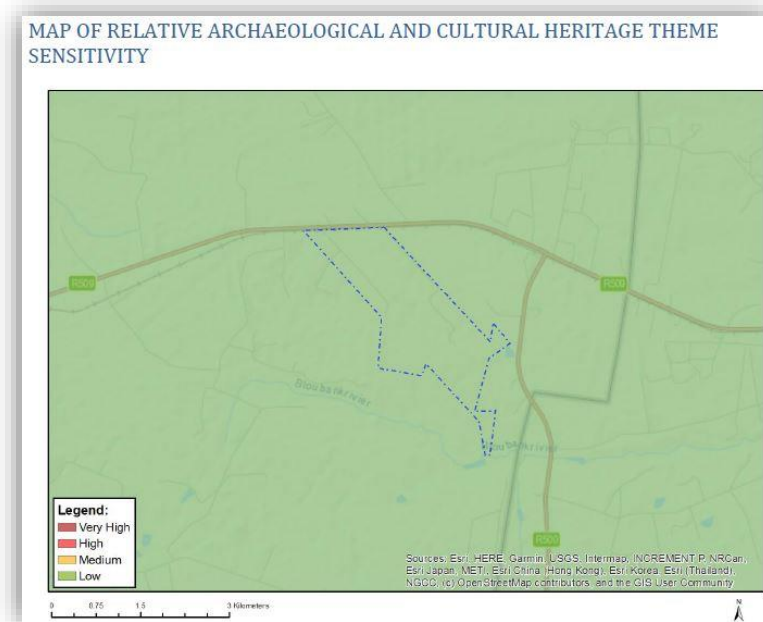


Figure 28: Archaeological and Cultural Sensitivity Map

8.3.7 Palaeontological

The Environmental Screening Report (2022), attached under Appendix E, shows a "high sensitivity" on the Palaeontology Theme Sensitivity. According to the South African Heritage Resources Agency's Palaeontological (Fossil) Sensitivity Map, the site has a 'Moderate' sensitivity and a desktop study is required (<https://sahris.sahra.org.za/map/palaeo>).

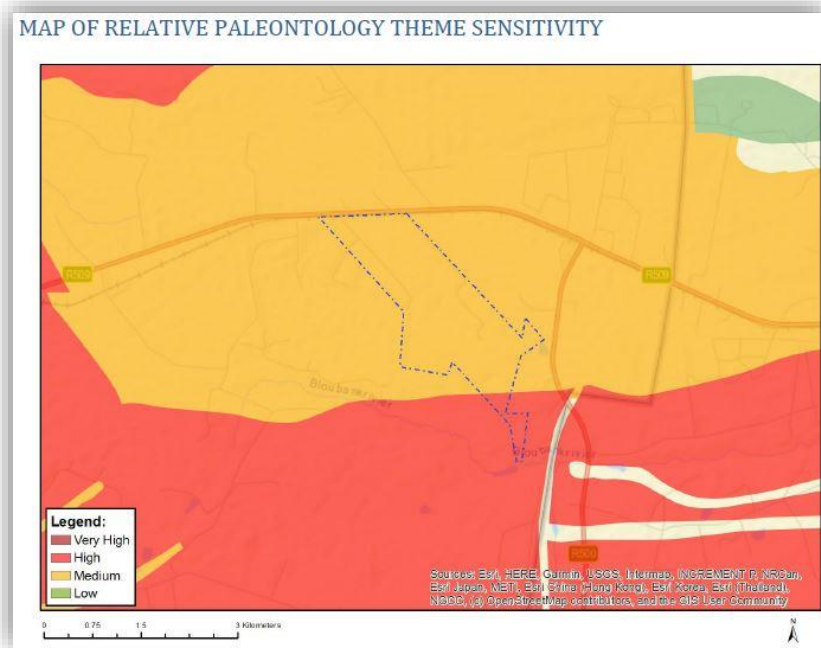


Figure 29: Palaeontology Sensitivity Map

8.4 Impacts and risks identified for each alternative

The following impacts and risks have been identified for the preferred alternative:

Table 4: Impacts and Risks Identified for the Preferred Alternative

Impact	Phase	Risks
Pre-construction Phase	Pre-construction phase	<ul style="list-style-type: none"> • Unauthorised access to the construction site that can pose a risk to the public in terms of their safety. • Unsafe working conditions. • Workers being unaware of the dangers of working at the construction site, resulting in a risk to their safety.
	Wetlands	
	Construction Phase	<ul style="list-style-type: none"> • Changing the quantity and fluctuation properties of the watercourse by, for example, stormwater input, or restricting water flow. • Changing the amount of sediment entering the watercourse and associated change in turbidity (construction activities can result in earthworks and soil disturbance as well as the removal of natural vegetation). • Introduction and spread of alien vegetation (the moving of soil and vegetation resulting in invasions after disturbance and the introduction of seed in building materials and on construction vehicles). • Change in water quality due to foreign materials and increased nutrient impact ratings. Construction activities can result in the discharge of solvent and other chemicals, leakage of fuel/oil from vehicles and disposal of sewage which can result in the loss of sensitive biota in wetlands/ivers.
	Operational Phase	<ul style="list-style-type: none"> • Changing the quantity and fluctuation properties of the watercourse by, for example, stormwater input, or restricting water flow. • Changing the amount of sediment entering the watercourse and associated change in turbidity (operational activities can result in earthworks and soil disturbance as well as the removal of natural vegetation). • Introduction and spread of alien vegetation (the moving of soil and vegetation resulting in invasions after disturbance and the introduction of seed through vehicles). • Change in water quality due to foreign materials and increased nutrient impact ratings. Operational activities can result in the discharge of solvent and other chemicals, leakage of fuel/oil from vehicles and disposal of sewage which can result in the loss of sensitive biota in wetlands/ivers.
	Post-construction and Rehabilitation Phase	<ul style="list-style-type: none"> • Same as under construction phase.
	Decommissioning Phase	<ul style="list-style-type: none"> • No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Surface and	Planning and	<ul style="list-style-type: none"> • Inadequate planning or faulty designs may lead to surface and

Impact	Phase	Risks
Groundwater	Design Phase	groundwater pollution.
	Construction Phase	<ul style="list-style-type: none"> • Pollution of surface and/or groundwater resources due to the potential release of pollutants, such as chemicals. • Pollution of surface and/or groundwater resources due to the incorrect management of chemical substances and dangerous goods. • Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from construction vehicles. • Pollution of surface and/or groundwater resources due to spillages from chemical toilets. • Pollution of surface and/or groundwater resources due to the incorrect management, storage and disposal of construction waste. • Pollution of surface and/or groundwater resources due to the runoff of contaminated stormwater. • Pollution of surface and/or groundwater resources from the mixing of concrete. • The wastage of water resources due to the irresponsible use of water.
	Operational Phase	<ul style="list-style-type: none"> • Pollution of surface and/or groundwater resources due to the incorrect management of chemical substances and dangerous goods. • Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from vehicles. • Pollution of surface and/or groundwater resources due to the incorrect management, storage and disposal of waste. • Pollution of surface and/or groundwater resources due to the runoff of contaminated stormwater. • Pollution of surface and/or groundwater resources due to leakages from the sewerage network (pipelines) onsite. • The wastage of resources due to the irresponsible use of water and electricity.
	Post-construction and Rehabilitation Phase	<ul style="list-style-type: none"> • Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from construction vehicles.
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Fauna	Construction Phase	<ul style="list-style-type: none"> • Loss of habitat. • Habitat fragmentation. • Disturbance of any fauna species that may be resident onsite. • Environmental contamination, including disease transmission from chickens to wild birds: the chicken facilities will create a risk of contamination of natural habitats in the surrounding areas if spillages such as manure occur.
	Operational Phase	<ul style="list-style-type: none"> • Disturbance of any fauna species that may be resident onsite. • Habitat fragmentation. • Provision of artificial habitat for fauna species.

Impact	Phase	Risks
		<ul style="list-style-type: none"> Environmental contamination, including disease transmission from chickens to wild birds: the chicken facilities will create a risk of contamination of natural habitats in the surrounding areas if spillages such as manure occur.
	Post-construction and Rehabilitation Phase	<ul style="list-style-type: none"> Disturbance of any fauna species that may be present onsite. Environmental contamination, including disease transmission from chickens to wild birds: the chicken facilities will create a risk of contamination of natural habitats in the surrounding areas if spillages such as manure occur.
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Flora	Construction Phase	<ul style="list-style-type: none"> Loss of degraded/disturbed vegetation (Moot Plains bushveld) during site clearance. Deterioration of watercourse and riparian vegetation. Establishment and spread of alien invasive vegetation.
	Operational Phase	<ul style="list-style-type: none"> Establishment and spread of alien invasive vegetation (onsite and surrounding areas). Deterioration of watercourse and riparian vegetation.
	Post-construction and rehabilitation phase	<ul style="list-style-type: none"> Establishment and spread of alien invasive vegetation (onsite and further than the site).
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Heritage Resources	Construction Phase	<ul style="list-style-type: none"> The site is located in an area with "Low" archaeological and cultural heritage sensitivity. The possibility exists that significant fossil assemblages may be present beneath the site. Possible disturbance or destruction of cultural and heritage resources.
	Operational Phase	
	Post-construction and Rehabilitation Phase	
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Palaeontological Resources	Construction Phase	<ul style="list-style-type: none"> The site is located in an area with "High" palaeontological sensitivity. The possibility exists that significant fossil assemblages may be present beneath the site. The disturbance and/or destruction of the fossil assemblages.
	Operational Phase	
	Post-construction and Rehabilitation	

Impact	Phase	Risks
Air Quality and Noise	Phase	
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
	Construction Phase	<ul style="list-style-type: none"> • Generation of dust by construction vehicles. • Release of emissions from construction vehicles. • Generation of nuisance and noise from construction vehicles and equipment/machinery.
	Operational Phase	<ul style="list-style-type: none"> • Generation of dust by excavation and vehicles onsite. • Release of emissions from vehicles. • Generation of nuisance and noise from vehicles, excavation and maintenance activities.
Soil	Post-construction and Rehabilitation Phase	<ul style="list-style-type: none"> • Generation of dust by construction vehicles. • Release of emissions from construction vehicles. • Generation of nuisance and noise from construction vehicles and equipment/machinery.
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
	Planning and Design Phase	<ul style="list-style-type: none"> • Inadequate planning or faulty designs may lead to soil pollution and may cause soil instability and disturbances.
	Construction Phase	<ul style="list-style-type: none"> • Soil pollution due to hydrocarbon spillages or leakages from construction vehicles. • Soil pollution due to spillages from chemical toilets. • Soil pollution due to the incorrect management, storage and disposal of waste (general and hazardous waste). • Soil pollution of surface and/or groundwater resources from the mixing of concrete. • Soil erosion due to the clearance of vegetation and the removal of topsoil and subsoil. • Soil compaction to create foundations for buildings and other associated infrastructure. • Degradation of topsoil due to incorrect storage practices.
Soil	Operational Phase	<ul style="list-style-type: none"> • Soil pollution due to hydrocarbon spillages or leakages from vehicles. • Soil pollution due to the incorrect management, storage and disposal of waste (general and hazardous waste). • Soil pollution due to leakages from the sewerage network (pipelines) onsite. • Soil instability.
	Post-construction and Rehabilitation Phase	<ul style="list-style-type: none"> • Soil pollution due to hydrocarbon spillages or leakages from vehicles. • Soil erosion due to inefficient rehabilitation of construction areas.
	Decommissioning	No decommissioning activities are anticipated or planned for the proposed

Impact	Phase	Risks
	Phase	project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Socio-economic	Construction Phase	<ul style="list-style-type: none"> • Generation of a number of employment opportunities. • Potential increase in crime due to the influx of workers. • Stimulation of the local economy.
	Operational Phase	<ul style="list-style-type: none"> • Generation of a number of employment opportunities. • Stimulation of the local economy. • Contribution to food security.
	Post-construction and Rehabilitation Phase	<ul style="list-style-type: none"> • Generation of a number of employment opportunities. • Stimulation of the local economy.
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Traffic	Construction Phase	<ul style="list-style-type: none"> • Increase in traffic volumes to the site.
	Operational Phase	
	Post-construction and Rehabilitation Phase	
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Fire Risk	Construction Phase	<ul style="list-style-type: none"> • Increased risk of fire due to construction/operational activities and increased human activity.
	Operational Phase	
	Post-construction and Rehabilitation Phase	None anticipated
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process.
Diseases	Construction Phase	<ul style="list-style-type: none"> • The outbreak of diseases among birds, other avian species and humans.
	Operational Phase	
	Post-construction and Rehabilitation Phase	
	Decommissioning Phase	No decommissioning activities are anticipated or planned for the proposed project. Therefore, no impacts have been identified or assessed as part of

Impact	Phase	Risks
		this Environmental Impact Assessment process.

Cumulative Impacts

Cumulative Impacts can be defined as the changes experienced within the environment that are caused by an action in combination with past, present and future human actions (environment.gov.za).

Wetlands

- Should mitigation measures not be implemented for the effective management of wetlands/ivers, unstable channel conditions can lead to erosion, meandering, increased potential for flooding and movement of bed material. Reversing this process is unlikely and should be prevented.
- Toxins ending up within the watercourses can take many years to be eradicated.

Fauna

- Poultry breeder farms, by their nature, elevate the risk of disease transmission between wild and domestic species. However, as long as adequate biosecurity measures are put in place, the cumulative impact should not cause concern.

Air Quality

The release of greenhouse gas emissions from vehicles and trucks such as:

- Carbon Dioxide (CO₂);
- Carbon Monoxide (CO);
- Nitrogen Oxide (NO); and
- Sulphur Dioxide (SO₂)

The above mentioned gasses will combine with other greenhouse gasses in the atmosphere and contribute towards the global Climate Change effect.

The impacts have been fully assessed under Section 9.3 of this report

8.5 Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives

Please refer to Sections 9.1 and 9.2 of this report.

8.6 Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected

As detailed under Section 8.4 above.

8.7 Possible mitigation measures that could be applied and level of residual risk

The following table contains possible mitigation measures that can be applied to mitigate the identified impacts. Detailed mitigation measures have also been included in the Environmental Management Programme (EMPr) that forms part of this Basic Assessment Report.

Table 5: Possible Mitigation Measures

Impact	Possible mitigation measures
Planning and Design Phase	
<p>Inadequate planning and design of facilities that could result in environmental impacts that could have been avoided.</p> <p>Residual risk: None anticipated.</p>	<p>Site selection</p> <ul style="list-style-type: none"> • The new infrastructure should preferably be constructed on an already disturbed site. • The new infrastructure may not be constructed on a wetland or within a drainage line. • The new infrastructure must preferably be constructed on a level/flat site. • The site must have the correct land use zoning to enable the new infrastructure to be constructed and operated. <p>Design of facilities</p> <ul style="list-style-type: none"> • Impermeable foundations (such as concrete foundations) must be designed. • An adequate number of fire extinguishers must be provided for.
Pre-construction Phase	
<ul style="list-style-type: none"> • Unauthorised access to the construction site that can pose a risk to the public in terms of their safety. • Unsafe working conditions. <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • The construction site must be demarcated (fenced or delineated with danger tape). Permanent demarcation is preferable to prevent the public from gaining access to the site. • Signage indicating that the site is a “Construction Site” and indicating the risks associated with the site must be displayed. Emergency numbers, “No-smoking” signs and “No Open Flame” signs must also be displayed at the construction site. • Fire-fighting equipment must be placed at the construction site and must be easily accessible. • A fully equipped First Aid Kit must be readily available onsite.
<p>Workers being unaware of the dangers of working at the construction site, resulting in a risk to their safety.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Before any employees or contractors commence work at the proposed project site, each individual must undergo an Induction Training session that will cover the aspects as detailed in the Environmental Awareness Plan (contained in the EMP). Attendance registers must be completed and kept on file. • Employees and contract workers must be issued with suitable Personal Protective Equipment (PPE), as applicable to each persons’ job onsite.
Wetlands	
Construction Phase	
<p>Changing the quantity and fluctuation properties of the watercourse by, for example, stormwater input, or restricting water flow.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • No activities should take place in the watercourses and associated buffer zones. Where the above is unavoidable, only the construction footprint and no access roads can be considered. This is subject to authorisation by means of a Water Use License. • Construction must be restricted to dryer winter months where possible. • A temporary fence or demarcation must be erected around No-Go areas outside the proposed work areas prior to construction taking place. • Effective stormwater management should be a priority during the construction phase.

Impact	Possible mitigation measures
<p>Changing the amount of sediment entering the watercourse and associated change in turbidity (construction activities can result in earthworks and soil disturbance as well as the removal of natural vegetation).</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Water may seep into earthworks. It is likely that water can be contaminated within these earthworks. Effective sediment traps should therefore be installed. • Construction in an around watercourses must be restricted to the dryer winter months where possible. • Retain vegetation and soil in position for as long as possible, removing it immediately ahead of construction/earth works (DWAF, 2005). • Remove vegetation only where essential for construction and do not allow any disturbance to the adjoining natural vegetation cover. • Rehabilitation plans must be submitted and approved for rehabilitation of damage during construction. The plan must be implemented immediately upon completion of construction. • Cordon off areas that are under rehabilitation as no-go areas using danger tape and steel droppers. If required, these areas should be fenced off to prevent vehicular and pedestrian access. • During the construction phase, measures must be put in place to control the flow of excess water so that it does not impact on the surface vegetation. • Protect all areas susceptible to erosion. Ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas. • Runoff from the construction area must be managed to prevent erosion and pollution problems. • Ensure source-direct controls.
<p>Introduction and spread of alien vegetation (the moving of soil and vegetation resulting in invasions after disturbance and the introduction of seed in building materials and on construction vehicles).</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Effective weed control practices to be implemented. • Retain vegetation and soil in position for as long as possible, removing it immediately ahead of construction/earthworks. • Monitor the establishment of alien invasive species within the areas affected by construction activities. Immediate corrective action to take place where invasive species are observed to establish. • Rehabilitate or re-vegetate disturbed areas.
<p>Change in water quality due to foreign materials and increased nutrient impact ratings. Construction activities can result in the discharge of solvent and other chemicals, leakage of fuel/oil from vehicles and disposal of sewage which can result in the loss of sensitive biota in wetlands/rivers.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Provide sufficient ablution facilities onsite and outside of the watercourse and buffer zone areas. • Implement appropriate stormwater management around excavations to prevent runoff into excavation areas and to prevent contaminated runoff into watercourses. • After construction land must be cleared of rubbish, surplus materials and equipment. All parts of the land shall be left in a condition as close as possible to prior use. • Maintenance of construction vehicles and/or equipment should not take place within watercourses or associated buffer zones. • Control waste discharges. • Treatment of any pollution identified should be prioritised accordingly.
Operational Phase	
<p>Changing the quantity and fluctuation</p>	<ul style="list-style-type: none"> • No activities should take place in the watercourses and associated buffer

Impact	Possible mitigation measures
<p>properties of the watercourse by, for example, stormwater input, or restricting water flow.</p> <p>Residual risk: None anticipated.</p>	<p>zones.</p> <ul style="list-style-type: none"> • Effective stormwater management should be a priority during the operational phase.
<p>Changing the amount of sediment entering the watercourse and associated change in turbidity (operational activities can result in earthworks and soil disturbance as well as the removal of natural vegetation).</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Effective sediment traps should be installed. • Protect all areas susceptible to erosion. Ensure that there is no undue soil erosion resultant from activities. • Runoff must be managed to prevent erosion and pollution problems. • Ensure source-direct controls.
<p>Introduction and spread of alien vegetation (the moving of soil and vegetation resulting in invasions after disturbance and the introduction of seed through vehicles).</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Effective weed control practices to be implemented. • Monitor the establishment of alien invasive species within the areas affected by operational activities. Immediate corrective action to take place where invasive species are observed to establish. • Rehabilitate or re-vegetate disturbed areas.
<p>Change in water quality due to foreign materials and increased nutrient impact ratings. Operational activities can result in the discharge of solvent and other chemicals, leakage of fuel/oil from vehicles and disposal of sewage which can result in the loss of sensitive biota in wetlands/rivers.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Vehicles should regularly be inspected to ensure that any fuel or oil leaks are repaired. • Maintenance of vehicles and/or equipment should not take place within watercourses or associated buffer zones. • Control waste discharges. • Treatment of any pollution identified should be prioritised accordingly. • Ablution facilities must regularly be cleaned.
Post-construction and Rehabilitation Phase	
<p>Changing the quantity and fluctuation properties of the watercourse by, for example, stormwater input, or restricting water flow.</p> <p>Residual risk: None anticipated</p>	<p>Same mitigation measures as under construction phase.</p>
<p>Changing the amount of sediment entering the watercourse and associated change in turbidity (construction activities can result in earthworks and soil disturbance as well as the removal of natural vegetation).</p> <p>Residual risk: None anticipated.</p>	<p>Same mitigation measures as under construction phase.</p>
<p>Introduction and spread of alien</p>	<p>Same mitigation measures as under construction phase.</p>

Impact	Possible mitigation measures
<p>vegetation (the moving of soil and vegetation resulting in invasions after disturbance and the introduction of seed in building materials and on construction vehicles).</p> <p>Residual risk: None anticipated.</p>	
<p>Change in water quality due to foreign materials and increased nutrient impact ratings. Construction activities can result in the discharge of solvent and other chemicals, leakage of fuel/oil from vehicles and disposal of sewage which can result in the loss of sensitive biota in wetlands/rivers.</p> <p>Residual risk: None anticipated.</p>	<p>Same mitigation measures as under construction phase.</p>
Surface and Groundwater	
Construction Phase	
<p>Pollution of surface and/or groundwater resources due to the potential release of pollutants, such as chemicals.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • No wastewater of wash water may be released into the environment from construction activities. • Vehicles should regularly be inspected to ensure that any fuel or oil leaks are repaired. • Spill kits must be onsite to clean up any spillages.
<p>Pollution of surface and/or groundwater resources due to the incorrect management of chemical substances and dangerous goods.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • A register must be compiled of all chemical substances and dangerous goods used onsite. • MSDS's (Material Safety Data Sheets) must be maintained for all chemical substances and dangerous goods. The MSDS's must also be displayed onsite. • Chemical substances and dangerous goods must be stored safely and as per the requirements of the MSDS for each chemical substances and dangerous goods. Locked storage areas are preferred. • Drip trays must be readily available onsite and used for any repair work, maintenance work or refuelling undertaken onsite. • Spill kits must be readily available onsite and personnel must be trained on the appropriate procedures to clean up spillages.
<p>Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from construction vehicles.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Spill kits must be onsite to clean up any hydrocarbon spillages. • Vehicles should regularly be inspected to ensure that any fuel or oil leaks are repaired. • Vehicles must be serviced in designated areas and on impermeable surfaces. • All construction vehicles must be parked in designated areas and on impermeable surfaces.
<p>Pollution of surface and/or groundwater resources due to spillages from chemical toilets.</p>	<ul style="list-style-type: none"> • Sufficient ablution facilities must be provided. • Chemical toilets must be serviced regularly. • Any spillages from the chemical toilets must immediately be cleaned and

Impact	Possible mitigation measures
Residual risk: None anticipated.	the contaminated soil disposed of as hazardous waste.
Pollution of surface and/or groundwater resources due to the incorrect management, storage and disposal of construction waste. Residual risk: None anticipated.	<ul style="list-style-type: none"> • Construction waste must be stored in a designated area. • Building rubble must be stored separately from domestic waste. • Refuse bins must be provided for domestic waste. • Building rubble must be kept clean of plastic and brick ties. • Large volumes of waste may not accumulate onsite.
Pollution of surface and/or groundwater resources due to the runoff of contaminated storm water. Residual risk: None anticipated.	<ul style="list-style-type: none"> • Storm water must be diverted around areas where there are pollution sources. • No contaminated storm water may be released into the environment from construction activities. • Storm water drainage infrastructure must be regularly inspected for obstructions.
Pollution of surface and/or groundwater resources from the mixing of concrete. Residual risk: None anticipated.	<ul style="list-style-type: none"> • Concrete should ideally be mixed on an impermeable surface such as a concrete slab. • Bricklayers and plasters are to keep the working area clean of any spill or run-off. • Contaminated soil as a result of a cement or concrete spillage must be removed immediately and disposed of in the correct manner. • Cement bags (new and used) must be stored under roof or in closed containers where they will not be exposed to rain. • Dry concrete must be removed and disposed of together with other building rubble.
The wastage of water resources due to the irresponsible use of water. Residual risk: None anticipated.	<ul style="list-style-type: none"> • Water pipes and hoses should be inspected on a regular basis and any leakages should immediately be repaired. • Running water taps or hoses may not be left unattended.
Operational Phase	
Pollution of surface and/or groundwater resources due to the incorrect management of chemical substances and dangerous goods. Residual risk: None anticipated.	<ul style="list-style-type: none"> • A register must be compiled of all chemical substances and dangerous goods used onsite. • MSDS's (Material Safety Data Sheets) must be maintained for all chemical substances and dangerous goods. The MSDS's must also be displayed onsite. • Chemical substances and dangerous goods must be stored safely and as per the requirements of the MSDS for each chemical substances and dangerous goods. Locked storage areas are preferred. • Drip trays must be readily available onsite and used for any repair work, maintenance work or refuelling undertaken onsite. • Spill kits must be readily available onsite and personnel must be trained on the appropriate procedures to clean up spillages.
Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from vehicles. Residual risk: None anticipated.	<ul style="list-style-type: none"> • Spill kits must be onsite to clean up any hydrocarbon spillages. • Vehicles should regularly be inspected to ensure that any fuel or oil leaks are repaired.

Impact	Possible mitigation measures
<p>Pollution of surface and/or groundwater resources due to the incorrect management, storage and disposal of waste.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> Waste must be managed according to its hazard classification (i.e. general vs. hazardous waste) and general and hazardous waste streams should not be mixed. Waste stored onsite must be kept in appropriate containers with lids that can be closed. Waste must be taken to appropriately licensed facilities for reuse, recycling, recovery or disposal (last resort).
<p>Pollution of surface and/or groundwater resources due to the runoff of contaminated stormwater.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> Storm water must be diverted around areas where there are pollution sources. Storm water drainage infrastructure must be regularly inspected for obstructions. No contaminated storm water may be released into the environment from the construction activities. Washing or cleaning of equipment or machinery must occur in a designated area and the contaminated wash water must be contained. Such an area could be a plastic drum, a container or a plastic lined pit. Wash water from the wash bay must be contained and not released into the environment.
<p>Pollution of surface and/or groundwater resources due to leakages from the sewerage network (pipelines) onsite.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> Ablution facilities must regularly be cleaned. Should toilets run slowly or become blocked, this should be investigated to ensure that this is not due to a broken or blocked pipe underground. Any broken or blocked pipes must be repaired.
<p>The wastage of resources (water supply and electricity) due to the irresponsible use of water and electricity.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> Consumption of water and electricity must be monitored. Use energy efficient lighting, where possible. Switch off lights and appliances when not in use. Water pipes and hoses should be inspected on a regular basis and any leakages should immediately be repaired. Running water taps or hoses may not be left unattended.
<p>Post-construction and Rehabilitation Phase</p>	
<p>Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from construction vehicles.</p> <p>Residual risk: None anticipated.</p>	<p>Same mitigation measures as under construction phase.</p>
<p>Fauna</p>	
<p>Construction Phase</p>	
<p>Loss of low quality fauna habitat (degraded/disturbed vegetation cover) during site clearance.</p> <p>Residual risk: None anticipated.</p>	<p>No mitigation measures required as the site is in a disturbed state.</p>
<p>Disturbance of any fauna species that may be present onsite.</p>	<ul style="list-style-type: none"> Fauna species may not be disturbed, captured or killed. Should animals be encountered during the development, these should be relocated (by a suitably qualified specialist) to natural vegetation areas in

Impact	Possible mitigation measures
Residual risk: None anticipated.	the vicinity of the site.
<p>Environmental contamination, including disease transmission from chickens to wild birds: the chicken facilities will create a risk of contamination of natural habitats in the surrounding areas if spillages such as manure occur.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> Standard biosecurity measures must be implemented in order to ensure that no contact between chickens and wild birds, mammals or humans takes place.
Operational Phase	
<p>Disturbance of any fauna species that may be present onsite.</p> <p>Residual risk: None anticipated.</p>	Same mitigation measures as under construction phase.
<p>Provision of artificial habitat for fauna species.</p> <p>Residual risk: Not applicable.</p>	This is a positive impact and no mitigation measures are therefore required.
<p>Environmental contamination, including disease transmission from chickens to wild birds: the chicken facilities will create a risk of contamination of natural habitats in the surrounding areas if spillages such as manure occur.</p> <p>Residual risk: None anticipated.</p>	Same mitigation measures as under construction phase.
Post-construction and Rehabilitation Phase	
<p>Disturbance of any fauna species that may be present onsite.</p> <p>Residual risk: None anticipated.</p>	Same mitigation measures as under construction phase.
Flora	
Construction Phase	
<p>Loss of degraded/disturbed vegetation (Moot Plains bushveld) during site clearance.</p> <p>Residual risk: None anticipated.</p>	No mitigation measures required as the site is in a degraded/disturbed state.
<p>Deterioration of watercourse and riparian vegetation.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> A minimum buffer around the watercourses are recommended in which no development should take place. No stormwater from the construction sites are allowed to be channelled directly into any watercourse. An effective stormwater management plan must be implemented onsite.
<p>Spread of alien invasive vegetation.</p>	<ul style="list-style-type: none"> Use only indigenous plant species for gardens and rehabilitation.

Impact		Possible mitigation measures	
Residual risk: None anticipated.		<ul style="list-style-type: none"> • Eradicate any alien invasive vegetation observed onsite. 	
Operational Phase			
Establishment and spread of alien invasive vegetation (onsite and further than the site).		Same mitigation measures as under construction phase.	
Residual risk: None anticipated.			
Deterioration of watercourse and riparian vegetation.		Same mitigation measures as under construction phase.	
Residual risk: None anticipated.			
Post-construction and Rehabilitation Phase			
Establishment and spread of alien invasive vegetation (onsite and further than the site).		Same mitigation measures as under construction phase.	
Residual risk: None anticipated.			
Heritage Resources			
Construction Phase			
Disturbance or destruction of cultural and heritage resources.		If any cultural or heritage resources, sites, features or objects are exposed during the construction activities, all construction activities in the area must be stopped and a heritage specialist must be contacted to investigate the site and recommend the way forward.	
Residual risk: None anticipated.			
Operational Phase			
None anticipated.		Not applicable.	
Residual risk: None anticipated.			
Post-construction and Rehabilitation Phase			
None anticipated.		Not applicable.	
Residual risk: None anticipated.			
Palaeontological Resources			
Construction Phase			
Very high possibility that significant fossil assemblages will be present beneath the site. The disturbance and/or destruction of the fossil assemblages.		<ul style="list-style-type: none"> • A field assessment by a qualified palaeontologist must be conducted. • A Protocol of Fossil Finds must be compiled and submitted to the South African Heritage Resources Agency. The protocol must be implemented during the construction phase. 	
Residual risk: None anticipated.			
Operational Phase			
None anticipated.		Not applicable.	
Residual risk: None anticipated.			
Post-construction and Rehabilitation Phase			
None anticipated.		Not applicable.	

Impact	Possible mitigation measures
Residual risk: None anticipated.	
Air Quality and Noise	
Construction Phase	
<p>Generation of dust by construction vehicles.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Implement dust suppression techniques. • Limit vegetation clearance until it is necessary for soil stripping. • A complaints register must be kept onsite and be easily accessible to any party who wishes to lodge a complaint. The complaints register must include the following fields: <ul style="list-style-type: none"> ▪ The date of the complaint; ▪ The name and surname of the person lodging the complaint; ▪ Details of the complaint; and ▪ How and when the complaint was addressed.
<p>Release of emissions from construction vehicles.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Regular maintenance of vehicles to minimise the release of emissions. • Vehicles must be left idling unnecessarily.
<p>Generation of nuisance and noise from construction vehicles and equipment/machinery.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Noisy activities must be scheduled during times of the day that will result in the least disturbance to adjacent sensitive receptors. • Noisy work must be avoided on weekends and public holidays. • Vehicles must not be left idling unnecessarily. • All vehicles must be regularly maintained.
Operational Phase	
<p>Generation of dust by vehicles onsite.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Implement dust suppression techniques, if required (for example, if there are any unpaved areas).
<p>Release of emissions from vehicles.</p> <p>Residual risk: None anticipated.</p>	<p>Same mitigation measures as under construction phase.</p>
<p>Generation of nuisance and noise from vehicles.</p> <p>Residual risk: None anticipated.</p>	<p>Same mitigation measures as under construction phase.</p>
Post-construction and Rehabilitation Phase	
<p>Generation of dust by construction vehicles.</p> <p>Residual risk: None anticipated.</p>	<p>Same mitigation measures as under construction phase.</p>
<p>Release of emissions from construction vehicles.</p> <p>Residual risk: None anticipated.</p>	<p>Same mitigation measures as under construction phase.</p>
<p>Generation of nuisance and noise from construction vehicles and equipment/machinery.</p>	<p>Same mitigation measures as under construction phase.</p>

Impact	Possible mitigation measures
Residual risk: None anticipated.	
Soil	
Construction Phase	
<p>Soil pollution due to hydrocarbon spillages or leakages from construction vehicles.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Use drip trays for any machinery and/or vehicle repair work. • Immediately repair any leaking machinery or vehicles. • Place oil drums on impermeable surfaces or plastic liners. • Immediately clean any hydrocarbon spillages and dispose of as hazardous waste.
<p>Soil pollution due to spillages from chemical toilets.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Sufficient ablution facilities must be provided. • Chemical toilets must be serviced regularly. • Any spillages from the chemical toilets must immediately be cleaned and the contaminated soil disposed of as hazardous waste.
<p>Soil pollution due to the incorrect management, storage and disposal of waste (general and hazardous waste).</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Waste must be managed according to its hazard classification (i.e. general vs. hazardous waste) and general and hazardous waste streams should not be mixed. • Waste stored onsite must be kept in appropriate containers with lids that can be closed. • Waste must be taken to appropriately licensed facilities for reuse, recycling, recovery or disposal.
<p>Soil pollution of surface and/or groundwater resources from the mixing of concrete.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Concrete should ideally be mixed on an impermeable surface such as a concrete slab. • Bricklayers and plasters are to keep the working area clean of any spill or run-off. • Contaminated soil as a result of a cement or concrete spillage must be removed immediately and disposed of in the correct manner. • Cement bags (new and used) must be stored under roof or in closed containers where they will not be exposed to rain. • Dry concrete must be removed and disposed of together with other building rubble.
<p>Soil erosion due to the clearance of vegetation and the removal of topsoil and subsoil.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Limit vegetation clearance until it is necessary for soil stripping. • Implement adequate erosion prevention measures, such as measures to dissipate runoff water velocities. • Implement adequate storm water management measures.
<p>Soil compaction to create foundations for buildings and other associated infrastructure.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Soils should be moved when dry, as far as possible. • Excessively heavy vehicles should not be used for earthmoving activities. This will minimise compaction of the soil.
<p>Degradation of topsoil due to incorrect storage practices.</p> <p>Residual risk: None anticipated.</p>	<ul style="list-style-type: none"> • Topsoil and subsoil must be stored on separate stockpiles. • Cover topsoil stockpiles to prevent the soil being washed away during rainfall events.
Operational Phase	
<p>Soil pollution due to hydrocarbon spillages or leakages from vehicles.</p>	<p>Same mitigation measures as under construction phase.</p>

Impact	Possible mitigation measures
Residual risk: None anticipated.	
Soil pollution due to the incorrect management, storage and disposal of waste (general and hazardous waste).	Same mitigation measures as under construction phase.
Residual risk: None anticipated.	
Soil pollution due to leakages from the sewerage network (pipelines) onsite.	<ul style="list-style-type: none"> • Ablution facilities must regularly be cleaned. • Should toilets run slowly or become blocked, this should be investigated to ensure that this is not due to a broken or blocked pipe underground.
Residual risk: None anticipated.	<ul style="list-style-type: none"> • Any broken or blocked pipes must be repaired.
Post-construction and Rehabilitation Phase	
Soil erosion due to inefficient rehabilitation of construction areas.	<ul style="list-style-type: none"> • Rehabilitation must already be initiated during the construction phase, where possible.
Residual risk: None anticipated.	
Socio-economic	
Construction Phase	
Generation of a number of employment opportunities.	This is a positive impact and no mitigation measures are therefore required.
Residual risk: Not applicable.	
Potential increase in crime due to the influx of workers.	<ul style="list-style-type: none"> • Reference checks should be conducted on all workers before they are appointed. • Workers should not be allowed to leave the construction site during the day and should be transported to and from the site on a daily basis.
Residual risk: None anticipated.	
Stimulation of the local economy.	This is a positive impact and no mitigation measures are therefore required.
Residual risk: Not applicable.	
Operational Phase	
Generation of a number of employment opportunities.	This is a positive impact and no mitigation measures are therefore required.
Residual risk: Not applicable.	
Stimulation of the local economy.	This is a positive impact and no mitigation measures are therefore required.
Residual risk: Not applicable.	
Contribution to food security.	This is a positive impact and no mitigation measures are therefore required.
Residual risk: Not applicable.	
Post-construction and Rehabilitation Phase	
Generation of a number of employment opportunities.	This is a positive impact and no mitigation measures are therefore required.

Impact	Possible mitigation measures
Residual risk: Not applicable.	
Stimulation of the local economy.	This is a positive impact and no mitigation measures are therefore required.
Residual risk: Not applicable.	
Traffic	
Construction Phase	
Increase in traffic volumes to the site.	<ul style="list-style-type: none"> • Ensure that construction vehicles are roadworthy and that drivers comply with road rules.
Residual risk: None anticipated.	<ul style="list-style-type: none"> • Loads must be securely fastened and may not exceed the tonnage limitations for each vehicle. • Provide separate entry and exit gateways for pedestrians and vehicles. • Plan storage areas so that delivery vehicles do not need to cross the site. • Construction vehicles to make use of roads with less vehicle movement.
Operational Phase	
None anticipated.	Not applicable.
Residual risk: None anticipated.	
Post-construction and Rehabilitation Phase	
None anticipated.	Not applicable.
Residual risk: None anticipated.	
Fire Risk	
Construction Phase	
The potential for fire establishment at the construction area and its subsequent risk to human life and infrastructure.	<ul style="list-style-type: none"> • Access to fire-fighting equipment must at all times be unobstructed. • Emergency numbers must be clearly displayed at the construction site. • Where welding, hot-work and flame-cutting are undertaken, fire-fighting equipment must be at hand.
Residual risk: None anticipated.	
Operational Phase	
The potential for fire establishment or explosions at the proposed site and its subsequent risk to human life and infrastructure.	<ul style="list-style-type: none"> • An Emergency Response Plan must be compiled for the proposed site. • The fire-fighting system and all fire-fighting equipment must be inspected on an annual basis by a suitably qualified person and records kept on file. • The fire-fighting system and all fire-fighting equipment must be to the satisfaction of the municipal fire authority.
Residual risk: None anticipated.	
Post-construction and Rehabilitation Phase	
None anticipated.	Not applicable.
Residual risk: None anticipated.	
Diseases	
Construction Phase	
The outbreak of diseases among birds, other avian species and humans.	<ul style="list-style-type: none"> • All birds (chicks) should be obtained from disease free sources. • Use a sound vaccination programme. • Never permit contaminated equipment use within rearing and laying houses. • Keep wild birds, rodents and predators away from rearing and laying

Impact	Possible mitigation measures
	<p>sites.</p> <ul style="list-style-type: none"> • Installation of rodent and flytraps. • Clean and sanitize rearing and laying houses before and after each cycle with biodegradable soaps and disinfectants. • Monitoring and auditing of process by qualified person. • Obtain a reliable prognosis before starting treatment for a disease problem. • Proper handling, storage and disposal of litter and mortalities , in demarcated areas away from foot traffic or vehicles entering and leaving the premises.
Operational Phase	
<p>The outbreak of diseases among birds, other avian species and humans.</p>	<ul style="list-style-type: none"> • Same mitigation measures as under construction phase.
Post-construction and Rehabilitation Phase	
<p>None anticipated. Residual risk: None anticipated.</p>	<p>Not applicable.</p>

8.8 Outcome of the site selection matrix

The outcome of the site selection matrix was discussed under Section 8.1.1 of this report.

8.9 Motivation for not considering alternatives

The motivation for not considering certain alternatives was discussed under Section 8.1 of this report.

8.10 Concluding statement

The preferred alternative is the proposed project/development (Expansion of the Vlakfontein Breeder Farm) and the preferred location for the development is the project property, as detailed under Section 4 of this report.

9. THE PROCESS UNDERTAKEN TO IDENTIFY, ASSESS AND RANK THE IMPACTS THAT THE ACTIVITY WILL IMPOSE ON THE PREFERRED LOCATION THROUGH THE LIFE OF THE ACTIVITY

According to the Environmental Impact Assessment Regulations, 2014, the objective of the basic environmental impact assessment process is to, through a consultative process-

(a) determine the policy and legislative context within which the activity is located and document how the proposed activity complies with and responds to the policy and legislative context;

(b) identify the alternatives considered, including the activity, location, and technology alternatives;

(c) describe the need and desirability of the proposed alternatives;

(d) through the undertaking of an impact and risk assessment process, inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine-

(i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and

(ii) the degree to which these impacts-

(aa) can be reversed;

(bb) may cause irreplaceable loss of resources; and

(cc) can be avoided, managed or mitigated; and

(e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to-

(i) identify and motivate a preferred site, activity and technology alternative;

(ii) identify suitable measures to avoid, manage or mitigate identified impacts; and

(iii) identify residual risks that need to be managed and monitored.

9.1 Description of all environmental issues and risks that were identified during the Environmental Impact Assessment process – process undertaken

Elements of the proposed development that can interact with the environment are deemed to be environmental aspects. These have been identified during the Environmental Impact Assessment process, for each phase of the proposed development. Thereafter, the potential impacts that can result from the development's aspects have been identified. The impacts, whether positive or negative, are defined as any change to the environment resulting from the identified environmental aspects.

All environmental issues and risks that were identified as part of this Environmental Impact Assessment process have been listed under Section 8.4 of this report. The aspects can be seen in the tables under Section 9.3 of this report.

9.2 Assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures – process undertaken

Assessing the significance of the potential impacts has been conducted using the following parameters. Direct, indirect and cumulative impacts have been assessed.

The **nature** of the impact: This will include a qualitative description of what caused the impact and how it will affect the environment;

The **extent** of the impact: The size (physical/geographical) that will be affected by the impact. The following weighting will be used:

- Onsite: Weighting value **1**: The impact is confined to the project site/property
- Local: Weighting value **2**: The impact is confined to the project site/property and a 10km radius around the project site/property
- Regional: Weighting value **3**: The impact extends further than a 10km radius around the project site/property

The **duration** of the impact: The length of time over which the impact will persist. The following weighting will be used:

- Short term: Weighting value **1**: The impact will persist for up to one year
- Medium term: Weighting value **2**: The impact will persist for longer than one year, but shorter than five years
- Long term: Weighting value **3**: The impact will persist for longer than five years

The **magnitude** of the impact: The intensity of the impact on the environment. The following weighting will be used:

- Low: Weighting value **1**: Natural processes continue, albeit in an altered manner
- Medium: Weighting value **2**: Natural processes cease temporarily
- High: Weighting value **3**: Natural processes cease indefinitely

The **probability** of the impact: How likely it is that the impact will happen. The following weighting will be used:

- Improbable: Weighting value **1**: It is unlikely that the impact will occur
- Probable: Weighting value **2**: There is a chance that the impact will occur
- Definite: Weighting value **3**: The impact will most certainly occur

The **status** of the impact: This will include a qualitative description of the following:

- Whether the impact is **positive** or **negative** in nature
- The degree to which the impact can be reversed
- The degree to which the impact can be mitigated
- The degree to which the impact may cause irreplaceable loss of resources

The **significance** of the impact: This will be calculated using the formula below:

$$\text{Significance} = (\text{Duration} + \text{Extent} + \text{Magnitude}) \times \text{Probability}$$

The significance of the impact will be divided into the following classes, based on the result of the above given equation:

- **Low Impact: Weighting value: 1-9**
- **Medium Impact: Weighting value: 10-18**
- **High Impact: Weighting value: 19-27**

The aspects to be assessed by specialists have been listed under Section 9.4. The impacts of the proposed project will be assessed by each specialist, mostly also using the following formula:

$$\text{Significance} = (\text{Duration} + \text{Extent} + \text{Magnitude}) \times \text{Probability}$$

9.3 Assessment of each identified potentially significant impact and risk, including cumulative impacts; the nature, significance and consequences of the impact and risk; the extent and duration of the impact and risk; the probability of the impact and risk occurring; the degree to which the impact and risk can be reversed; the degree to which the impact and risk may cause irreplaceable loss of resources; and the degree to which the impact and risk can be avoided, managed or mitigated

The following aspects have been assessed as part of the Environmental Impact Assessment process:

- Wetlands;
- Surface and groundwater;
- Fauna;
- Flora;
- Heritage resources;
- Palaeontological resources;
- Air quality and noise;
- Soil;
- Socio-economic;
- Traffic;
- Fire Risk;
- Diseases; and
- Safety.

The following tables discuss the impacts and risks identified for each alternative, including the nature, significance, consequences, extent, duration and probability of the impacts, including the degree to which the impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.

Preferred Alternative – Expansion of the Vlakfontein Breeder Farm

Planning and Design Phase

Aspect	Planning and design of facilities.	
Impact and Nature	Inadequate planning and design of facilities that could result in environmental impacts that could have been avoided.	
Impact Rating	Before mitigation	After mitigation
Planning and Design Phase		
Extent	2	1
Duration	3	1
Magnitude	3	1
Probability	2	1
Significance	16 - Medium	3 - Low
Construction Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Operational Phase		
Extent		
Duration		
Magnitude		

Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
<hr/>		
Pre-construction Phase		
Aspect	Construction site establishment.	
Impact and Nature	<ul style="list-style-type: none"> • Unauthorised access to the construction site that can pose a risk to the public in terms of their safety. • Unsafe working conditions. 	
Impact Rating	Before mitigation	After mitigation
Pre-construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	2	2
Significance	12 - Medium	6 - Low
Construction Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause	High degree	

irreplaceable loss of resources	
Degree to which impact can be avoided, managed or mitigated	High degree

Aspect	Appointment of workers (employees and contractors) to commence construction activities onsite.	
Impact and Nature	Workers being unaware of the dangers of working at the construction site, resulting in a risk to their safety.	
Impact Rating	Before mitigation	After mitigation
	Pre-construction Phase	
Extent	2	1
Duration	2	1
Magnitude	2	2
Probability	2	1
Significance	12 - Medium	4 - Low
	Construction Phase	
Extent		
Duration		
Magnitude		
Probability		
Significance		
	Operational Phase	
Extent		
Duration		
Magnitude		
Probability		
Significance		
	Post-construction and Rehabilitation Phase	
Extent		
Duration		
Magnitude		
Probability		
Significance		
	Status of Impact	
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	High degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Wetlands		
Aspect	Wetland Deterioration/Loss	
Impact and Nature	Changing the quantity and fluctuation properties of the watercourse by, for example, stormwater input, or restricting water flow.	
Impact Rating	Before mitigation	After mitigation
	Construction Phase	
Extent	2	2
Duration	2	1
Magnitude	2	1

Probability	3	2
Significance	18 - Medium	8 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	6 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Aspect	Wetland Deterioration/Loss	
Impact and Nature	Changing the amount of sediment entering the watercourse and associated change in turbidity (construction/operational activities can result in earthworks and soil disturbance as well as the removal of natural vegetation).	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	3	2
Probability	3	2
Significance	21 - High	8 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent	1	1
Duration	2	1
Magnitude	3	2
Probability	2	1
Significance	12 - Medium	4 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause	High degree	

irreplaceable loss of resources	
Degree to which impact can be avoided, managed or mitigated	High degree

Aspect	Wetland Deterioration/Loss	
Impact and Nature	Introduction and spread of alien vegetation (the moving of soil and vegetation resulting in invasions after disturbance and the introduction of seed in building materials and vehicles).	
Impact Rating	Before mitigation	After mitigation
	Construction Phase	
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	6 - Low
	Operational Phase	
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
	Post-construction and Rehabilitation Phase	
Extent	1	1
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	15 - Medium	6 - Low
	Status of Impact	
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Aspect	Wetland Deterioration/Loss	
Impact and Nature	Change in water quality due to foreign materials and increased nutrient impact ratings. Construction/Operational activities can result in the discharge of solvent and other chemicals, leakage of fuel/oil from vehicles and disposal of sewage which can result in the loss of sensitive biota in wetlands/ rivers.	
Impact Rating	Before mitigation	After mitigation
	Construction Phase	
Extent	3	2
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	21 - High	8 - Low
	Operational Phase	
Extent	2	1

Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low

Post-construction and Rehabilitation Phase

Extent	2	2
Duration	2	1
Magnitude	2	1
Probability	3	1
Significance	18 - Medium	4 - Low

Status of Impact

Consequence	Negative
Degree to which impact can be reversed	Low degree
Degree to which impact may cause irreplaceable loss of resources	High degree
Degree to which impact can be avoided, managed or mitigated	High degree

Surface and Groundwater

Aspect	Pollution of surface and/or groundwater resources.
Impact and Nature	Pollution of surface and/or groundwater resources due to the potential release of pollutants, such as chemicals.

Impact Rating	Before mitigation	After mitigation
	Construction Phase	

Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	6 - Low

Operational Phase

Extent		
Duration		
Magnitude		
Probability		
Significance		

Post-construction and Rehabilitation Phase

Extent		
Duration		
Magnitude		
Probability		
Significance		

Status of Impact

Consequence	Negative
Degree to which impact can be reversed	Medium degree
Degree to which impact may cause irreplaceable loss of resources	High degree
Degree to which impact can be avoided, managed or mitigated	High degree

Aspect	Pollution of surface and/or groundwater resources.
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Impact and Nature	Pollution of surface and/or groundwater resources due to the incorrect management of chemical substances and dangerous goods.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	3	1
Significance	18 - Medium	3 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Aspect	Pollution of surface and/or groundwater resources.	
Impact and Nature	Hydrocarbon spillages or leakages from vehicles, including construction vehicles.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	6 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	2	1

Significance	12 - Medium	3 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Pollution of surface and/or groundwater resources.	
Impact and Nature	Spillages from chemical toilets (construction phase) and the sewerage network pipelines (operational phase).	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	2
Probability	2	1
Significance	12 - Medium	4 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Mixing of concrete.	
Impact and Nature	Pollution of surface and/or groundwater resources.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	2
Probability	2	1
Significance	12 - Medium	4 - Low
Operational Phase		
Extent		
Duration		

Magnitude		
Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Incorrect management, storage and disposal of waste, including construction waste.	
Impact and Nature	Pollution of surface and/or groundwater resources.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	2
Probability	3	1
Significance	18 - Medium	4 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Runoff of contaminated stormwater.	
Impact and Nature	Pollution of surface and/or groundwater resources.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		

Extent	2	1
Duration	2	1
Magnitude	2	2
Probability	3	1
Significance	18 - Medium	4 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	The usage of water and electricity.	
Impact and Nature	Wastage of resources due to the irresponsible use.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	2	1
Significance	12 - Medium	3 - Low
Operational Phase		
Extent	2	1
Duration	3	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	

Degree to which impact can be avoided, managed or mitigated	High degree
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Fauna		
Aspect	Site clearance.	
Impact and Nature	Loss of low quality fauna habitat (degraded/disturbed vegetation cover), affecting the ecosystem, biological diversity and ecological integrity of the site.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	1	1
Duration	2	2
Magnitude	2	2
Probability	3	1
Significance	15 - Medium	5 - Low
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	High degree	
Degree to which impact may cause irreplaceable loss of resources	Low degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Aspect	Construction, operation and rehabilitation activities.	
Impact and Nature	Disturbance of any fauna species that may be present onsite.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	1	1
Duration	2	1
Magnitude	2	1
Probability	2	1
Significance	10 - Medium	3 - Low
Operational Phase		
Extent	1	1
Duration	3	1
Magnitude	3	1
Probability	1	1
Significance	7 - Low	3 - Low
Post-construction and Rehabilitation Phase		
Extent	1	1

Duration	2	1
Magnitude	2	1
Probability	1	1
Significance	5 - Low	3 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	High degree	
Degree to which impact may cause irreplaceable loss of resources	Low degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Operational activities.	
Impact and Nature	Provision of artificial habitat for fauna species.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Positive	
Degree to which impact can be reversed	N/A – positive impact	
Degree to which impact may cause irreplaceable loss of resources	N/A – positive impact	
Degree to which impact can be avoided, managed or mitigated	N/A – positive impact	
Aspect	Construction and operational activities.	
Impact and Nature	Environmental contamination, including disease transmission from chickens to wild birds: the chicken facilities will create a risk of contamination of natural habitats in the surrounding areas if spillages such as manure occur.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	3	1

Duration	2	1
Magnitude	2	1
Probability	2	1
Significance	14 - Medium	3 - Low
Operational Phase		
Extent	3	1
Duration	3	1
Magnitude	3	2
Probability	2	1
Significance	18 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent	3	1
Duration	2	1
Magnitude	2	1
Probability	2	1
Significance	14 - Medium	3 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	High degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Flora

Aspect	Site clearance.	
Impact and Nature	Loss of degraded/disturbed vegetation (Moot Plains Bushveld).	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	1	1
Duration	3	2
Magnitude	2	1
Probability	3	1
Significance	18 - Medium	4 - Low
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	High degree	

Degree to which impact may cause irreplaceable loss of resources	Low degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Construction, operation and rehabilitation activities.	
Impact and Nature	Establishment and spread of alien invasive vegetation (onsite and further than the site).	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	6 - Low
Operational Phase		
Extent	2	1
Duration	3	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent	2	1
Duration	2	1
Magnitude	2	2
Probability	2	1
Significance	12 - Medium	4 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	High degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Construction and operational activities.	
Impact and Nature	Deterioration of watercourse and riparian vegetation.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	3	2
Probability	2	1
Significance	14 - Medium	4 - Low
Operational Phase		
Extent	2	1
Duration	3	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent		

Duration		
Magnitude		
Probability		
Significance		

Status of Impact

Consequence	Negative
Degree to which impact can be reversed	High degree
Degree to which impact may cause irreplaceable loss of resources	Medium degree
Degree to which impact can be avoided, managed or mitigated	High degree

Heritage Resources

Aspect	Construction activities.	
Impact and Nature	Disturbance or destruction of cultural and heritage resources.	
Impact Rating	Before mitigation	After mitigation

Construction Phase

Extent	1	1
Duration	3	3
Magnitude	3	1
Probability	2	1
Significance	14 - Medium	5 - Low

Operational Phase

Extent		
Duration		
Magnitude		
Probability		
Significance		

Post-construction and Rehabilitation Phase

Extent		
Duration		
Magnitude		
Probability		
Significance		

Status of Impact

Consequence	Negative
Degree to which impact can be reversed	Low degree
Degree to which impact may cause irreplaceable loss of resources	High degree
Degree to which impact can be avoided, managed or mitigated	High degree

Palaeontological resources

Aspect	Construction activities.	
Impact and Nature	The disturbance and/or destruction of the fossil assemblages.	
Impact Rating	Before mitigation	After mitigation

Construction Phase

Extent	1	1
Duration	3	3

Magnitude	3	1
Probability	2	1
Significance	14 - Medium	5 - Low
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	High degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Air Quality and Noise

Aspect	Construction, operation and rehabilitation activities.	
Impact and Nature	Generation of dust by vehicles, including construction vehicles.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	6 - Low
Operational Phase		
Extent	2	1
Duration	3	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent	2	1
Duration	1	1
Magnitude	2	1
Probability	3	2
Significance	15 - Medium	6 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	

Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Construction, operation and rehabilitation activities.	
Impact and Nature	Release of emissions from vehicles, including construction vehicles and coal burner.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	2
Duration	2	2
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	10 - Medium
Operational Phase		
Extent	2	2
Duration	3	2
Magnitude	2	1
Probability	3	2
Significance	21 - High	10 - Medium
Post-construction and Rehabilitation Phase		
Extent	3	2
Duration	1	1
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	8 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	Low degree	
Aspect	Construction, operation and rehabilitation activities.	
Impact and Nature	Generation of nuisance and noise from vehicles (including construction vehicles) and equipment/machinery. This also includes nuisance and noise from maintenance activities.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	2
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	8 - Low
Operational Phase		
Extent	2	1
Duration	3	1
Magnitude	3	1
Probability	2	2
Significance	16 - Medium	6 - Low
Post-construction and Rehabilitation Phase		
Extent	2	1

Duration	1	1
Magnitude	2	1
Probability	3	2
Significance	15 - Medium	6 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	Medium degree	

Soil

Aspect	Hydrocarbon spillages or leakages from vehicles, including construction vehicles.	
Impact and Nature	Soil pollution.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	2
Magnitude	2	1
Probability	2	1
Significance	12 - Medium	4 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	1
Probability	2	1
Significance	16 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent	2	1
Duration	2	2
Magnitude	2	1
Probability	2	1
Significance	12 - Medium	4 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Aspect	Spillages from chemical toilets (construction phase) or the sewerage network (operational phase).	
Impact and Nature	Soil pollution.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		

Extent	2	1
Duration	2	2
Magnitude	2	1
Probability	2	1
Significance	12 - Medium	4 - Low
Operational Phase		
Extent	2	1
Duration	3	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	The incorrect management, storage and disposal of waste (general and hazardous waste), including construction waste.	
Impact and Nature	Soil pollution.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	2
Magnitude	3	2
Probability	2	1
Significance	14 - Medium	5 - Low
Operational Phase		
Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause	Medium degree	

irreplaceable loss of resources	
Degree to which impact can be avoided, managed or mitigated	High degree

Aspect	The mixing of concrete.	
Impact and Nature	Soil pollution.	
Impact Rating	Before mitigation	After mitigation
	Construction Phase	
Extent	2	1
Duration	2	1
Magnitude	2	1
Probability	2	1
Significance	12 - Medium	3 - Low
	Operational Phase	
Extent		
Duration		
Magnitude		
Probability		
Significance		
	Post-construction and Rehabilitation Phase	
Extent		
Duration		
Magnitude		
Probability		
Significance		
	Status of Impact	
Consequence	Negative	
Degree to which impact can be reversed	Medium degree	
Degree to which impact may cause irreplaceable loss of resources	Medium degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Aspect	The clearance of vegetation and the removal of topsoil and subsoil.	
Impact and Nature	Soil erosion.	
Impact Rating	Before mitigation	After mitigation
	Construction Phase	
Extent	1	1
Duration	3	2
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	8 - Low
	Operational Phase	
Extent		
Duration		
Magnitude		
Probability		
Significance		
	Post-construction and Rehabilitation Phase	
Extent		
Duration		
Magnitude		

Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	High degree	
Degree to which impact may cause irreplaceable loss of resources	Low degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Construction activities to create foundations for buildings and other associated infrastructure.	
Impact and Nature	Soil compaction.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	1	1
Duration	3	2
Magnitude	3	1
Probability	2	2
Significance	14 - Medium	8 - Low
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	High degree	
Degree to which impact may cause irreplaceable loss of resources	Low degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Incorrect storage practices.	
Impact and Nature	Degradation of topsoil.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	1	1
Duration	2	1
Magnitude	2	1
Probability	2	1
Significance	10 - Medium	3 - Low
Operational Phase		
Extent		

Duration		
Magnitude		
Probability		
Significance		

Post-construction and Rehabilitation Phase

Extent		
Duration		
Magnitude		
Probability		
Significance		

Status of Impact

Consequence	Negative
Degree to which impact can be reversed	Medium degree
Degree to which impact may cause irreplaceable loss of resources	Low degree
Degree to which impact can be avoided, managed or mitigated	High degree

Aspect	Inefficient rehabilitation of construction areas.
Impact and Nature	Soil erosion.
Impact Rating	Before mitigation After mitigation

Construction Phase

Extent		
Duration		
Magnitude		
Probability		
Significance		

Operational Phase

Extent		
Duration		
Magnitude		
Probability		
Significance		

Post-construction and Rehabilitation Phase

Extent	2	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	5 - Low

Status of Impact

Consequence	Negative
Degree to which impact can be reversed	Medium degree
Degree to which impact may cause irreplaceable loss of resources	Low degree
Degree to which impact can be avoided, managed or mitigated	High degree

Socio-economic

Aspect	Construction, operational and rehabilitation activities.
Impact and Nature	Generation of a number of employment opportunities.

Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Status of Impact		
Consequence	Positive	
Degree to which impact can be reversed	N/A – Positive impact	
Degree to which impact may cause irreplaceable loss of resources	N/A – Positive impact	
Degree to which impact can be avoided, managed or mitigated	N/A – Positive impact	
Aspect	Construction activities.	
Impact and Nature	Potential increase in crime due to the influx of workers.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	3	2
Probability	2	1
Significance	14 - Medium	4 - Low
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		

Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	High degree	
Degree to which impact can be avoided, managed or mitigated	High degree	
Aspect	Construction, operational and rehabilitation activities.	
Impact and Nature	Stimulation of the local economy.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Operational Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Status of Impact		
Consequence	Positive	
Degree to which impact can be reversed	N/A – Positive impact	
Degree to which impact may cause irreplaceable loss of resources	N/A – Positive impact	
Degree to which impact can be avoided, managed or mitigated	N/A – Positive impact	
Aspect	Operational activities.	
Impact and Nature	Contribution to food security.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact
Operational Phase		
Extent		
Duration		

Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact

Post-construction and Rehabilitation Phase

Extent		
Duration		
Magnitude		
Probability		
Significance	Positive impact	No mitigation required – positive impact

Status of Impact

Consequence	Positive
Degree to which impact can be reversed	N/A – Positive impact
Degree to which impact may cause irreplaceable loss of resources	N/A – Positive impact
Degree to which impact can be avoided, managed or mitigated	N/A – Positive impact

Traffic

Aspect	Construction actives.
Impact and Nature	Increase in traffic volumes to the site.

Impact Rating	Before mitigation	After mitigation
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Construction Phase

Extent	2	2
Duration	2	2
Magnitude	2	1
Probability	3	2
Significance	18 - Medium	10 - Medium

Operational Phase

Extent	2	2
Duration	3	3
Magnitude	3	1
Probability	2	2
Significance	16 - Medium	12 - Medium

Post-construction and Rehabilitation Phase

Extent	2	2
Duration	1	1
Magnitude	2	2
Probability	3	2
Significance	15 - Medium	10 - Medium

Status of Impact

Consequence	Negative
Degree to which impact can be reversed	Medium degree
Degree to which impact may cause irreplaceable loss of resources	Low degree
Degree to which impact can be avoided, managed or mitigated	Low degree

Fire Risk		
Aspect	Construction and operational activities.	
Impact and Nature	The potential for fire establishment at the project site and its subsequent risk to human life and infrastructure.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	2	1
Duration	2	1
Magnitude	3	2
Probability	2	1
Significance	14 - Medium	4 - Low
Operational Phase		
Extent	2	1
Duration	3	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Post-construction and Rehabilitation Phase		
Extent		
Duration		
Magnitude		
Probability		
Significance		
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	High degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

Diseases		
Aspect	Construction and operational activities.	
Impact and Nature	The outbreak of diseases among birds, other avian species and humans.	
Impact Rating	Before mitigation	After mitigation
Construction Phase		
Extent	3	1
Duration	2	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Operational Phase		
Extent	3	1
Duration	3	2
Magnitude	3	2
Probability	2	1
Significance	18 - Medium	5 - Low
Post-construction and Rehabilitation Phase		
Extent	3	1

Duration	2	1
Magnitude	3	2
Probability	2	1
Significance	16 - Medium	4 - Low
Status of Impact		
Consequence	Negative	
Degree to which impact can be reversed	Low degree	
Degree to which impact may cause irreplaceable loss of resources	High degree	
Degree to which impact can be avoided, managed or mitigated	High degree	

9.4 A summary of the findings and impact management measures identified in any specialist reports complying with Appendix 6 of the EIA Regulations, 2014, and an indication as to how these findings and recommendations have been included in this Basic Assessment Report

The following specialist studies and the report thereof are included in the Basic Assessment Report (specialist reports are attached under Appendix D):

- Agricultural Sensitivity Verification Report (Conducted by Rehab Green) in March 2022;
- Site Sensitivity Verification and Aquatic Biodiversity Compliance Statement (Conducted by Ecotone) in March 2022; and
- Site Verification Report – Terrestrial Biodiversity Theme (Conducted by Ekoinfo) in March 2022.

As per the Agricultural Sensitivity Verification Report (Conducted by Rehab Green) in March 2022:

Rehab Green Monitoring Consultants cc was contracted by Labesh (Pty) Ltd to conduct an agricultural sensitivity verification assessment of 7 proposed chicken layer, rearing and alternative site footprints, in order to guide the way for further required specialist assessments related to environmental authorization.

Agricultural sensitivity as rated by the Screening Tool

The agricultural sensitivity of the proposed development sites (verification sites) was rated in a report generated by means of the web based Screening Tool dated 11/03/2022 13:26:33. The application category was Animal Production/Transformation of land/From agriculture or afforestation. The Screening Tool rated the agricultural sensitivity of all 7 proposed development sites/verification sites as high.

Conclusion in terms of verified and revised agricultural sensitivity

It was found that 6 of the 7 sites had high agricultural sensitivity as indicated by the Screening Tool. However, due to insufficient effective soil depth and the current unutilized state of site R5, the agricultural sensitivity was rated as medium.

Requirements of the Protocol based on the site sensitivity verification outcome

Based on the outcome of the site sensitivity verification and the type of structure, the Protocol requires 1 of 2 assessment levels, which is either an Agricultural agroecosystem assessment or an Agricultural Compliance Statement. As indicated by the flow diagram (on page 13 of the Agricultural Sensitivity Verification Report, 2022) the Protocol requires an Agricultural agroecosystem assessment to be done.

Please Note: Full Report is attached under Appendix D of this Basic Assessment Report.

As per the Site Sensitivity Verification and Aquatic Biodiversity Compliance Statement (Conducted by Ecotone) in March 2022:

Ecotone Freshwater Consultants was appointed by EkolInfo CC to undertake a site sensitivity verification assessment on portions of Vlakfontein 885 JQ and Hartebeestfontein 38. The field assessment was carried out on the 7th March 2022. The aim of this document is to provide an “Aquatic Biodiversity Compliance Statement” as required for the environmental authorisation process for a proposed development.

National Web Based Screening Tool

The results obtained from the National Web-based Environmental Screening Tool (<https://screening.environment.gov.za/screeningtool>) indicated a “Very High” Aquatic Biodiversity Sensitivity (Figure 1-1, of the Aquatic Biodiversity Compliance Statement Report, 2022).

Desktop Ecological Integrity

The monitoring sites are situated on the Bloubank system, associated with Sub-Quaternary Reach (SQR) – A21F-01231 (Figure 3-1, of the Aquatic Biodiversity Compliance Statement Report, 2022). This SQR fell within an overall D category, inferring a *Largely* modified state, where a large loss of natural habitat, biota, and basic ecosystem functions has taken place. The desktop data for the SQR (A21F-01231) reflected a *Moderate* Ecological Importance (EI) and *High* Ecological Sensitivity (ES) score. The monitoring sites are not situated within a Freshwater Ecosystem Priority Area (FEPA) but are associated with a Fish Rehabilitation Area (Nel *et al.*, 2011 - Figure 3-3, of the Aquatic Biodiversity Compliance Statement Report, 2022). These sub-quaternary catchments are considered suitable for the re-introduction of threatened fish species that once occurred within the area (Nel *et al.*, 2011).

Site Description

A total of 7 locations were included in the site verification assessment, which includes three potential egg laying areas (L1-L3) and four potential rearing areas (R4-R7) (refer to Figure 2-1, of the Aquatic Biodiversity Compliance Statement Report, 2022). Three main watercourses were identified in the surrounding catchments, a channelled valley bottom to the east of R4 and R7 (Site1 - Figure 3-2; Figure 4-1, of the Aquatic Biodiversity Compliance Statement Report, 2022), an ephemeral drainage line north of R7 (Site2 - Figure 3-2; Figure 4-2, of the Aquatic Biodiversity Compliance Statement Report, 2022) and the Bloubank River to the south of the study area (Site 3 - Figure 3-2; Figure 4-3, of the Aquatic Biodiversity Compliance Statement Report, 2022).

Results and Discussion

Findings from the field survey confirmed no watercourse features within either of the seven proposed site locations, and the soil investigation did not highlight wetland soils, as the sites were associated with Hutton, Shortland and Mayo soil types (refer to the agriculture potential compliance statement). The majority of the surrounding catchments show indications of anthropogenic disturbances, associated mainly with agricultural activities (crops) and animal production (refer to Figure 3-1, of the Aquatic Biodiversity Compliance Statement Report, 2022).

Watercourses were however, identified within a 500m radius of the proposed rearing sites R4, R5 and R7 (refer to Figure 3-2, of the Aquatic Biodiversity Compliance Statement Report, 2022). Sample points were investigated within these watercourses and *in situ* water quality was assessed where possible. Overall, the study area was characterized by low to moderate salt loads with circumneutral pH values (Table 5-1, of the Aquatic Biodiversity Compliance Statement Report, 2022).

Wetlands were not delineated within a 500 m radius outside of the seven sites, as this falls outside of the scope of work for this particular study and should form part of a separate GN 509 risk matrix protocol study in order to obtain authorisation for Section 21 (c) and (i) water use activities.

Conclusion

The results from the March 2022 assessment support the following conclusions:

1. No watercourse features were identified within either of the seven proposed laying and rearing site locations, and the soil investigation did not highlight wetland soils;
2. Watercourses were identified within 500 m of sites R4, R5 and R7. These include a channelled valley bottom to the east of site locations R4 and R7, and an ephemeral drainage line to the north of site R7;
3. The Bloubank River is situated south of the study area, and the desktop PES for the system is considered *Largely* modified (D Category) where a large loss of natural habitat, biota, and basic ecosystem functions has taken place;
4. The ephemeral drainage line appears to be located approximately 45 m north of site R7. This is regarded as sufficiently far away to mitigate new impacts, such as stormwater runoff from the new rearing facility, by functioning as a buffer between the watercourse and from the proposed development;
5. The confirmed absence of any watercourse features within the seven proposed site locations, the minimum distance of approximately 45 m between a watercourse and the nearest site, and the transformed nature of the surrounding catchments, provides the necessary motivation that the sites have a **Low** sensitivity with regards to Aquatic Biodiversity;
6. Despite no features being identified within the proposed site locations, watercourses were identified within a 500 m radius of the locations R4, R5 and R7. Therefore, a wetland study will be required that includes a GN 509 risk matrix protocol assessment within the regulated area for Section 21 (c) and (i) water use activities.

Please Note: Full Report is attached under Appendix D of this Basic Assessment Report.

As per the Site Verification Report – Terrestrial Biodiversity Theme (Conducted by Ekoinfo) in March 2022:

Labesh (Pty) Ltd appointed Ekoinfo CC to do a site verification survey of the flora component based on the environmental screening tool results for the proposed expansion of a chicken farm near Magaliesberg, Northwest Province (Figure 1, as per the Site Verification Report, 2022).

Study Area

The seven sites are located next to existing poultry farming infrastructure (Figure 3, as per the Site Verification Report, 2022). It is evident that the seven sites are located within an agricultural landscape. On a regional scale it is associated with the least concern (LC) Moot Plains Bushveld (Figure 4, as per the Site Verification Report, 2022), on a provincial scale ecological support area (ESA) occur along the eastern boundary. According to the provincial dataset, critical biodiversity areas (CBA) are in the vicinity of the seven verification sites. However, the landcover 2014 datasets clearly indicates that these areas are cultivated land (Figure 5, as per the Site Verification Report, 2022).

Results

It is evident from the digital images taken at the seven development sites (L1, L2, L3, R4, R5, R6, R7 - Figure 3, as per the Site Verification Report, 2022) (Appendix D, Appendix E), that only R5 contains natural vegetation. The other six sites are either covered with soya beans or maize. These observations confirmed the agricultural nature of this landscape, with the remaining natural areas most probably used for grazing.

The land change analysis based on land cover data from 1995, 2000 and 2014 clearly indicates that L1, L2 and L3 are in an area which has been cultivated since 1995 (Figure 6, as per the Site Verification Report, 2022). Therefore, these areas (L2, L3) can clearly not represent Ecological Support Area (ESA) as shown in Figure 4 (as per the Site Verification Report, 2022). Site R5 is associated with area that has been persistently natural vegetation since 1995. The northern section was most probably incorrectly classified as cultivation in 1995, because the 2000 and 2014 classifications both classify the areas as being associated with natural environment, it might imply that the northern section is secondary, but the legislation indicates that if an area has not been ploughed for more than 10 years it is considered to be virgin soil. Both R4 and R7 is in areas classified as currently transformed – cultivated land (Figure 5, as per the Site Verification Report, 2022). This imply that the 2015 Biodiversity Sector Plan of Northwest Province incorrectly classified these areas as natural with ESA and CBA status, as these areas were correctly classified as transformed – cultivated land in 2014 already.

Figure 7 (as per the Site Verification Report, 2022), confirms the transformed nature of the proposed development sites (L1, L2, L3, R6) with 100% confidence, sites R4 and R7 had more recently been transformed from either primary grassland or secondary grassland, but the current survey confirmed the transformed status. Therefore, the only untransformed site with mainly primary vegetation is R5. Twenty plant species were recorded within the plot sampled within R5, seven grasses, 12 forbs and one woody species. Nine of the 12 forb species are associated with disturbance, whether over grazing or historic cultivation. No climax grass species were recorded in the plot surveyed, with the dominant species being associated with disturbance – *Hyparrhenia hirta* and *H. filipendula*.

Conclusion

Based on the results of the verification site visit and subsequent desktop analysis, it is evident that the screening tool is incorrect with is high sensitivity for terrestrial biodiversity for the area, as six of the seven sites are associated with transformed areas being used for cultivation. The potential for these areas to be used for Protected Areas Expansion Strategy (Appendix C) is low, large part of this area had been used for cultivation since 1995.

Only site R5 is located within a patch of natural vegetation, which based on available area presents persistent primary vegetation, therefore it is recommended that alternative sites to R5 is used for the development, in support of the

generally ecological function which is provided by these remaining patches of natural vegetation in the landscape such as:

1. Pollinator habitat
2. Seed dispersal areas
3. Refugia for local wildlife

Please Note: Full Report is attached under Appendix D of this Basic Assessment Report.

10. ENVIRONMENTAL IMPACT STATEMENT

10.1 Summary of the key findings of the Environmental Impact Assessment

The summary of the key findings of this Basic Environmental Impact Assessment process are as follows:

- According to the North West BSP (2015), the proposed sites falls within Critical Biodiversity Areas 1 and 2 (CBA 1&2) and Ecological Support Area 2 (ESA 2). However, specialist input was obtained to confirm the site's sensitivity. As confirmed by the Site Verification Report – Terrestrial Biodiversity Theme (2022), the project site (rearing sites 1 to 4 and laying sites 1 to 2) are associated with transformed areas being used for cultivation. Only rearing site 5 is located within a patch of natural vegetation.
- As per the Site Verification Report – Terrestrial Biodiversity Theme (2022), recommendations have been made that alternative sites to rearing site 5 be used for the proposed development.
- According to the Hydrology Map as well as the Site Sensitivity Verification and Aquatic Biodiversity Compliance Statement (2022), no watercourse features were identified within either of the proposed 5 rearing site locations and proposed 2 laying site locations.
- The confirmed absence of any watercourse features within the 7 proposed site locations, the minimum distance of approximately 45m between a watercourse and the nearest site and the transformed nature of surrounding catchments, provides necessary motivation that the proposed sites have a low sensitivity with regards to Aquatic Biodiversity.
- The Agricultural Sensitivity (as per the Agricultural Sensitivity Verification Report, 2022) of all the proposed site locations was rated as high with the exception of rearing site 5, which was rated as having a medium sensitivity.
- The proposed development will result in a positive socio-economic impact through the provision of a number of temporary and permanent employment opportunities.
- The proposed development will result in a positive socio-economic impact through the provision of food security.
- The proposed development will also contribute to already existent agricultural activities (breeding activities already operational onsite).
- The proposed development is in line with the Rustenburg Local Municipality Integrated Development Plan (IDP) 2021/2022.
- The environmental impacts associated with the proposed development have been identified and assessed in terms of their significance in this report. The most significant impacts relate to wetland deterioration/loss, the release of emissions from vehicles; an increase in traffic to the project site and disturbance and/or destruction of the fossil assemblages. However, should mitigation measures be implemented by the applicant, it is not expected for there to be any long-term environmental legacy or burden.
- The majority of the impacts are rated as having a “Medium” significance before mitigation, and a “Low” significance after mitigation.

10.2 Environmental sensitivity map

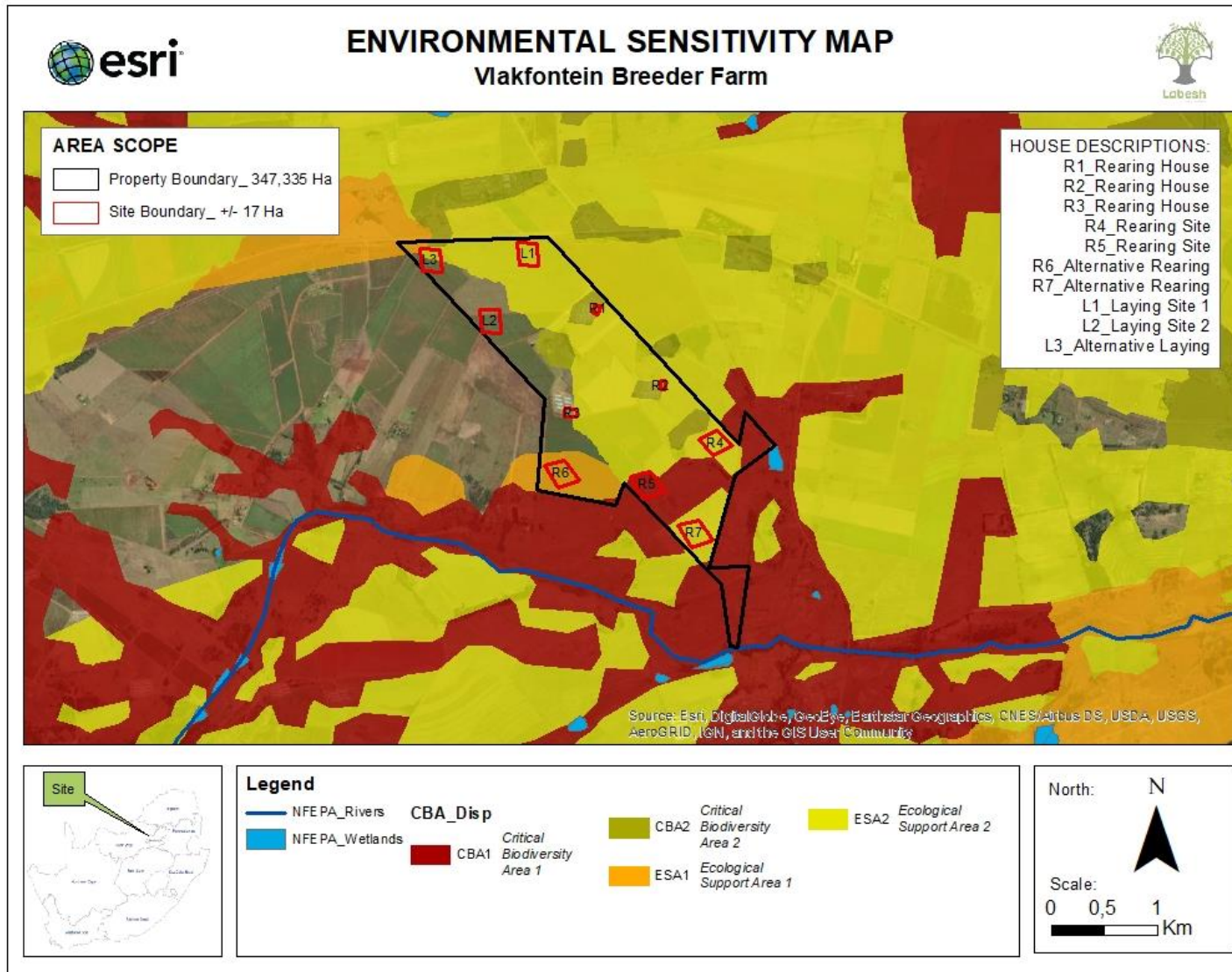


Figure 30: Sensitivity Map of the Project Site

10.3 Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives

The following main positive and potential negative impacts and risks have been identified for the proposed project:

Positive impacts

- The utilization of transformed agricultural land;
- Contribution to already existent agricultural activities (breeding activities already operational onsite);
- The generation of temporary and permanent employment opportunities;
- Contribution to food security;
- Contribution to the agriculture sector within the North West province (which currently has a need for agricultural activities); and
- The stimulation of the local economy.

Negative impacts

- Wetland deterioration/loss;
- Soil and water (surface- and ground water) pollution;
- Disturbance of fauna species;
- The spread of alien invasive vegetation;
- Disturbance or destruction of cultural and heritage resources;
- The disturbance and/or destruction of the fossil assemblages;
- Generation of dust;
- Release of atmospheric emissions;
- Generation of nuisance and noise;
- Soil erosion or compaction;
- Degradation of topsoil;
- Potential increase in crime;
- Increase in traffic volumes to the site;
- The potential for fire establishment at the project site and its subsequent risk to human life and infrastructure; and
- Disease outbreak.

Should mitigation measures be implemented by the applicant, it is not expected for there to be any long-term environmental legacy or burden.

10.4 Impact management measures from specialist reports and the recording of the proposed impact management outcomes for the development, for inclusion in the EMP

The following specialist studies and the report thereof are included in the Basic Assessment Report (specialist reports are attached under Appendix D):

- Agricultural Sensitivity Verification Report (Conducted by Rehab Green) in March 2022;
- Site Sensitivity Verification and Aquatic Biodiversity Compliance Statement (Conducted by Ecotone) in March 2022; and
- Site Verification Report – Terrestrial Biodiversity Theme (Conducted by Ekoinfo) in March 2022.

10.5 Aspects which were conditional to the findings of the assessment either by the EAP or specialists and which are to be included as conditions of authorisation

The following conditions must be included in the Environmental Authorisation, should the proposed development be authorised:

- A Protocol of Fossil Finds must be developed and submitted to SAHRA for approval prior to the development commencing. A Palaeontological Field Assessment must be carried out when the construction phase commences (should the proposed development be authorised);
- The mitigation measures contained in the Environmental Management Programme must be implemented during each developmental phase of the proposed project; and
- An independent Environmental Control Officer must be appointed to audit compliance to the Environmental Management Programme during the construction phase of the proposed development.

10.6 Description of assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures

The following assumptions were made during this Basic Environmental Impact Assessment process:

- That all research and reference sources or material is accurate and up to date;
- That the project information, as provided by the applicant, is correct;
- That the facilities will be constructed as per the layout plans supplied from the applicant; and
- That the project site will be operated according to the Environmental Management Programme and in a responsible manner.

At this stage the fossil assemblages that may possibly be present beneath the project site are not known. This will be determined during the Field Assessment that will be undertaken during commencement of the construction phase of the proposed project.

10.7 Reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation

It is Labesh's independent and reasoned opinion that the identified and assessed environmental impacts can be mitigated and that an Environmental Authorisation should therefore be issued for the proposed Expansion of the Vlakfontein Breeder Farm.

Please refer to Section 10.5 above for conditions that should be included in respect of the Environmental Authorisation.

10.8 Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded, and the post construction monitoring requirements finalised

Not applicable. The proposed activity does include operational aspects.

11. ENVIRONMENTAL ASSESSMENT PRACTITIONER UNDERTAKING/ AFFIRMATION

I, Lourens de Villiers, hereby confirm the following:

- The correctness of information provided in this Basic Assessment Report;
- The inclusion of all comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant ; and
- Any information provided by the EAP to I&APs and any responses by the EAP to comments or inputs made by I&APs have been included in this report.

I further confirm that I have no business, financial, personal or other interest in the activity or application in respect of which I have been appointed as EAP, in terms of the EIA Regulations, other than fair remuneration for work performed in connection with this application for Environmental Authorisation.

12. DETAILS OF ANY FINANCIAL PROVISION FOR THE REHABILITATION, CLOSURE, AND ONGOING POST DECOMMISSIONING MANAGEMENT OF NEGATIVE ENVIRONMENTAL IMPACTS

No financial provisioning applicable to the proposed project.

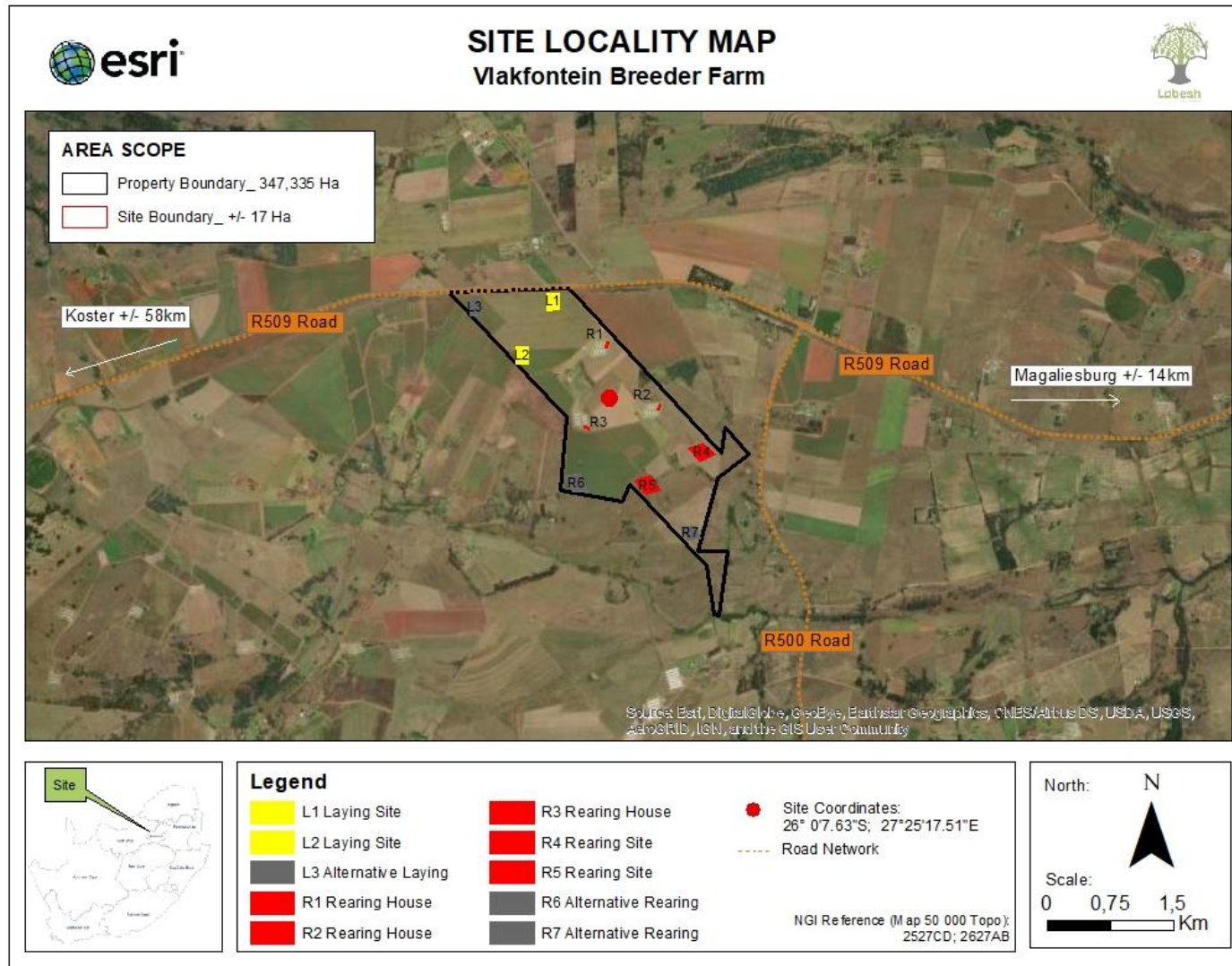
13. SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

No specific information has been required by the Competent Authority at this stage of the application process.

14. OTHER MATTERS REQUIRED IN TERMS OF SECTION 24(4)(A) AND (B) OF NEMA

At this stage, no other matters to address have been identified or required.

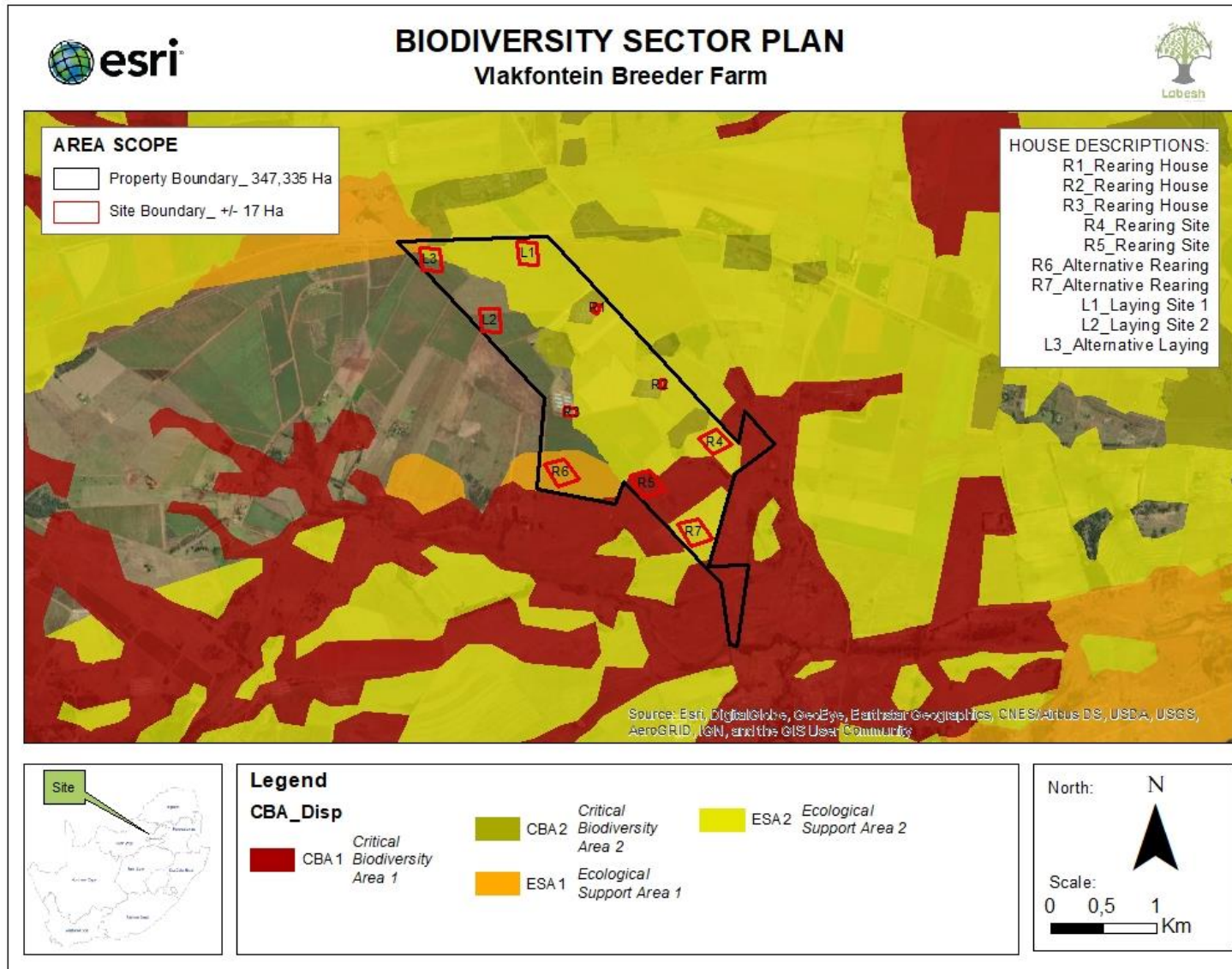
APPENDIX A – Plans and Maps



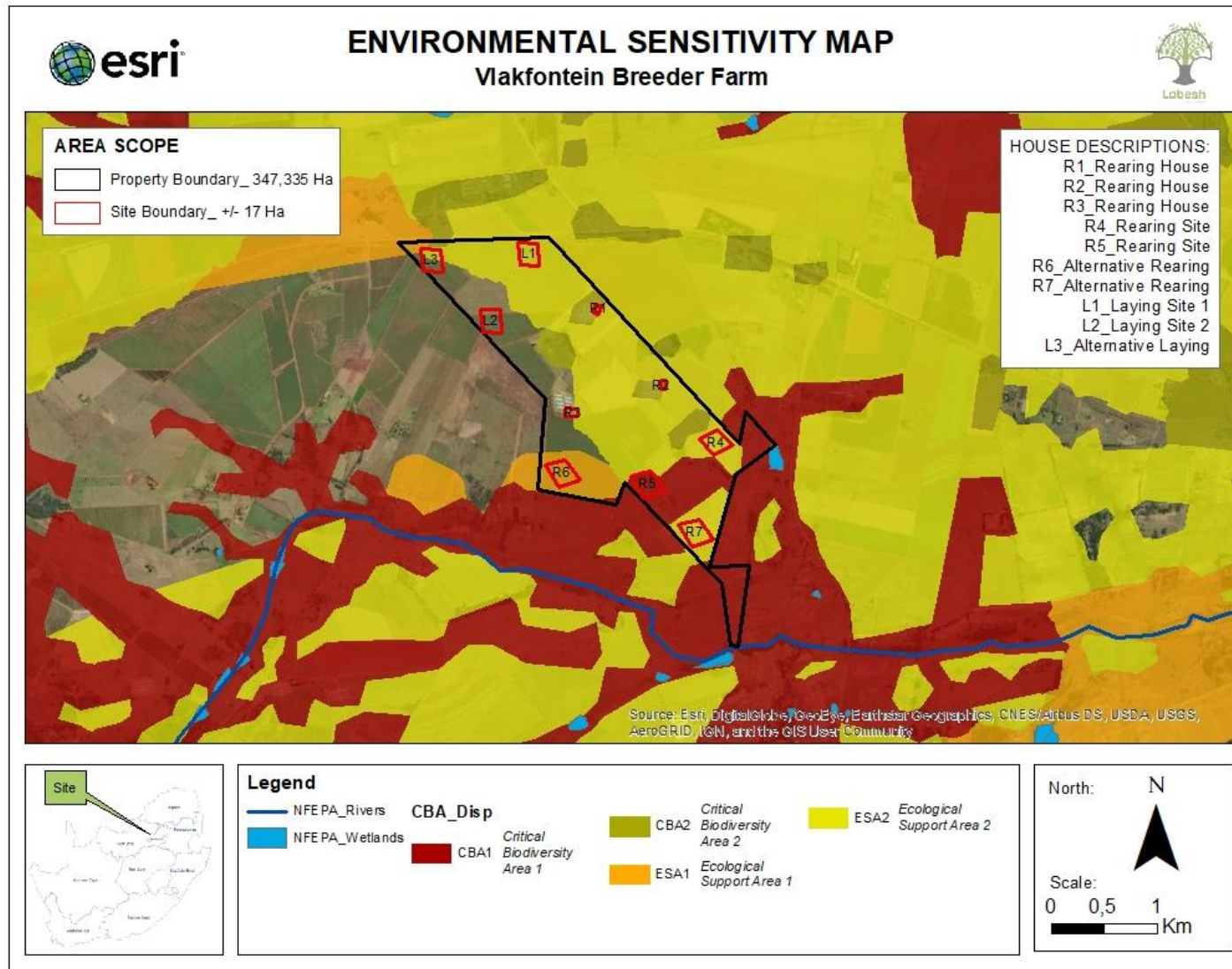
Site Locality Map



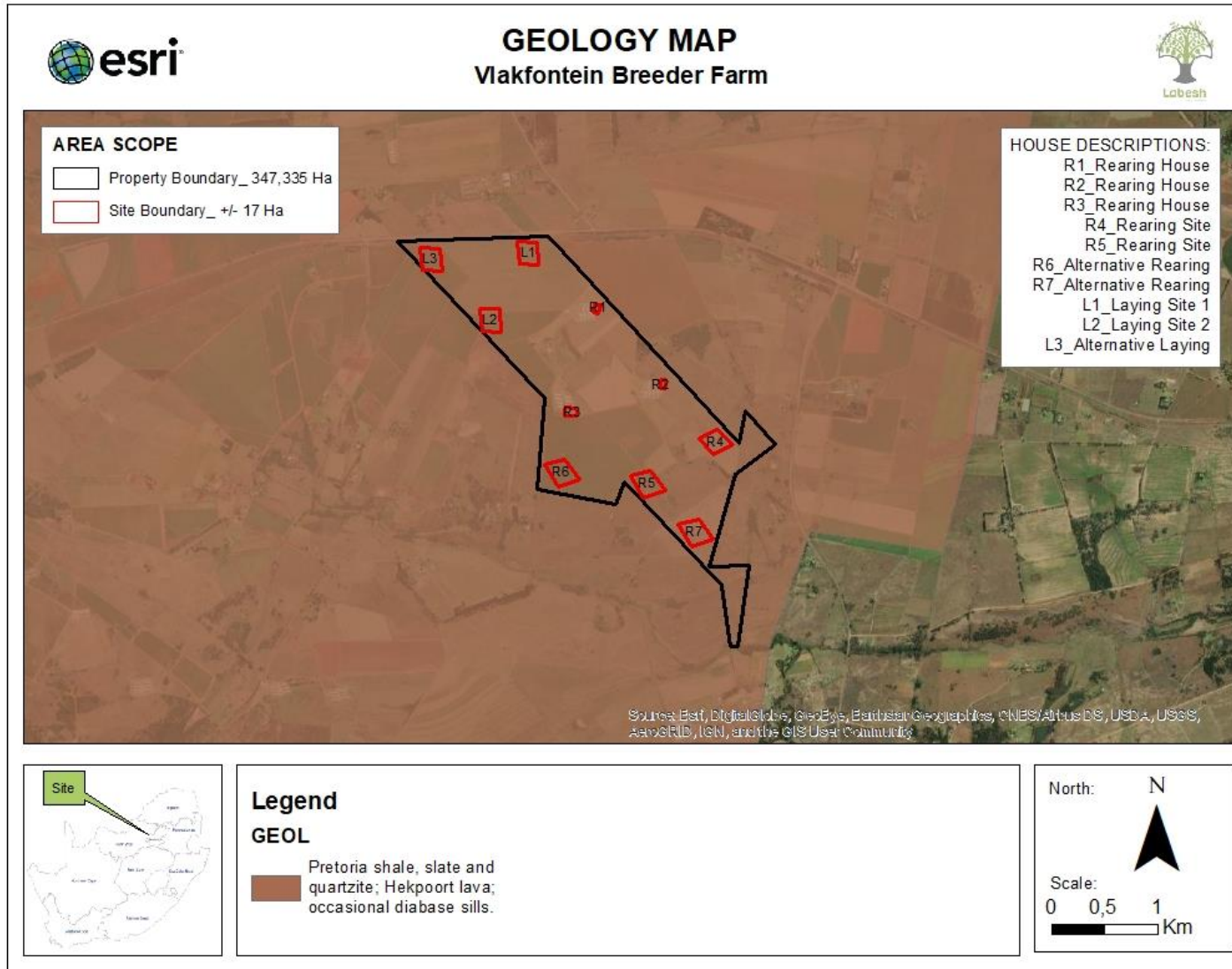
Facility illustration for the proposed project



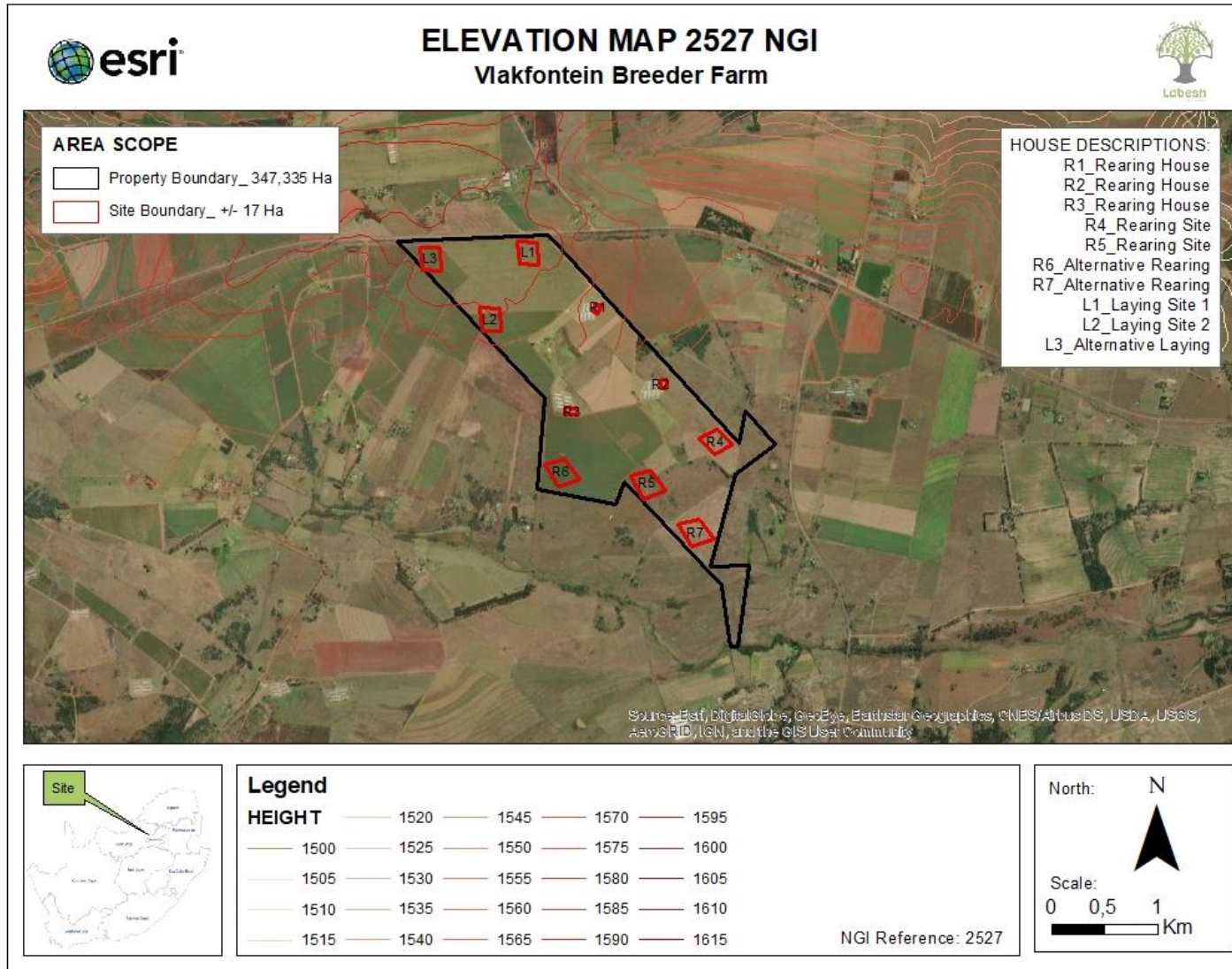
North West Biodiversity Sector Plan Map of the project site



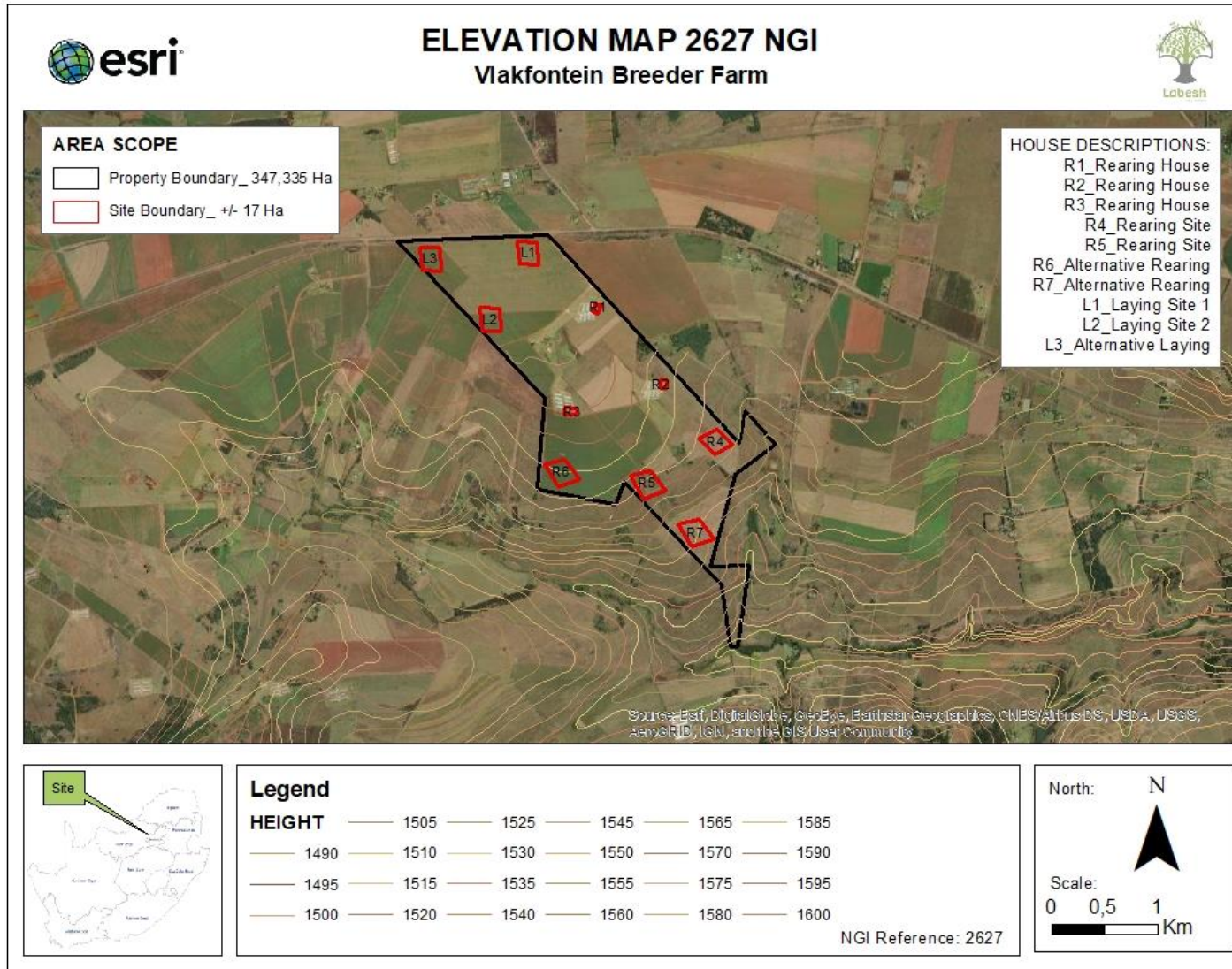
Sensitivity Map of the project site



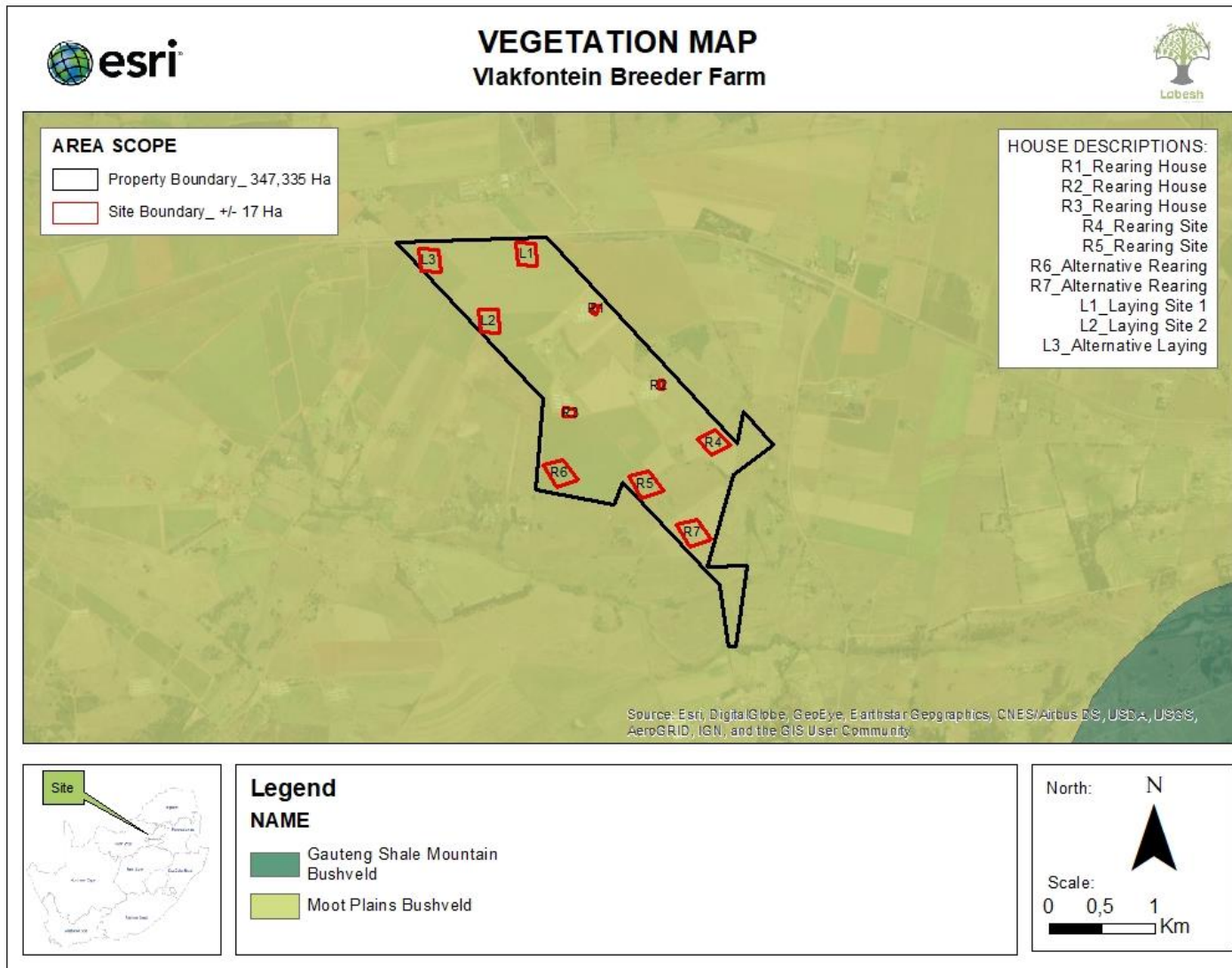
Geology Map of the project site



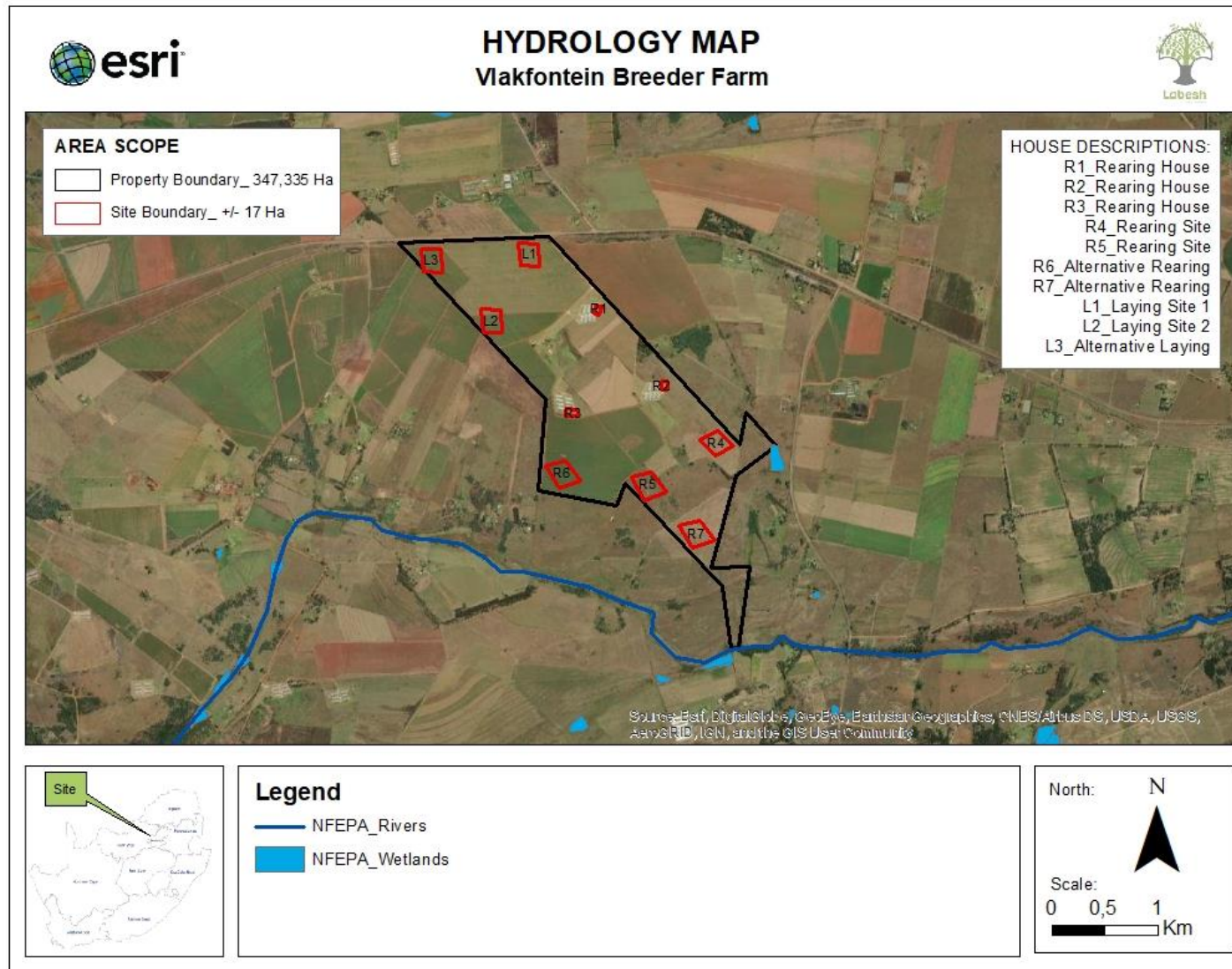
Elevation Map of the project site (NGI Reference: 2527)



Elevation Map of the project site (NGI Reference: 2627)



Vegetation Map of the project site



Hydrology Map of the project site and surrounding area

APPENDIX B - Photographs





APPENDIX C – Public Participation

Appendix 1: Proof of Site Notice



Appendix 2: Written notices issued as required in terms of the regulations

Appendix 2.1 – Written Notices



Postnet Box 469, Private Bag X504, Sinoville, 0129
 Tell: 087 230 8462
 Cell: 082 789 6525
 Email: info@labesh.co.za

April 14, 2022

Bojanala District Municipality
 PO Box 1993
 Rustenburg
 0300

Attention: Municipal Manager

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Project Applicant	ASTRAL Foods Ltd.
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Environmental Assessment Practitioner for the project	Labesh (Pty) Ltd - Lourens de Villiers Tel: 082 789 6525 Email: info@labesh.co.za Fax to Email: 086 552 6837 Postal Address: PostNet Box #469, Private Bag X504, Sinoville, 0129

Labesh (Pty) Ltd.



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Please do not hesitate to contact me should you require any additional information or if any of the information provided in this letter is unclear.

Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



Postnet Box 469, Private Bag X504, Sinoville, 0129
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 Cell: 082 789 6525
 Email: info@labesh.co.za

April 11, 2022

Department of Agriculture and Rural Development
 Private Bag X2039
 Mmabatho
 2735

Attention: Ms. Bonolo Mohlakoana

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd.



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Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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 Email: info@labesh.co.za

April 11, 2022

Department of Arts, Culture, Sports and Recreation
 Private Bag X2005
 Mmabatho
 2735

Attention: Ms N Bopela

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd.



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Regards,



Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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April 11, 2022

Department of Community Safety and Transport Management
 Private Bag X19
 Mmabatho
 2735

Attention: Ms. Bothale Mofokeng

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd.



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Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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 Email: info@labesh.co.za

April 11, 2022

Department of Cooperative Governance and Traditional Affairs
 Private Bag X90
 Mmabatho
 2735

Attention: Ms. Samantha Kanes

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd.



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Toll: 087 230 8462
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Please do not hesitate to contact me should you require any additional information or if any of the information provided in this letter is unclear.

Regards,



Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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 Tell: 087 230 8462
 Cell: 082 789 6525
 Email: info@labesh.co.za

April 11, 2022

Department of Cooperative Governance and Traditional Affairs
 Private Bag X90
 Mmabatho
 2735

Attention: Ms. Marcia Maseka

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd.



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Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



Postnet Box 469, Private Bag X504, Sinoville, 0129
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Email: info@labesh.co.za

April 11, 2022

Department of Health
Private Bag X2068
Mmabatho
2735

Attention: Mr. OE Mongala

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd.



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Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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April 11, 2022

Department of Human Settlements
 Private Bag X2099
 Mmabatho
 2735

Attention: Kgotso Rabanye

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Project Applicant	ASTRAL Foods Ltd.
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Project Name	Expansion of the Vlakfontein Breeder Farm
Project Location	Remainder of Portion 6 of the Farm Bokfontein 385 JQ; Portion 35 of the Farm Bokfontein 385 JQ; Remainder of Portion 33 of the Farm Bokfontein 385 JQ; Portion 39 of the Farm Bokfontein 385 JQ; Portion 34 of the Farm Bokfontein 385 JQ; Remainder of Portion 9 of the Farm Bokfontein 385 JQ; Portion 3 of the Farm Bokfontein 385 JQ and Portion 32 of the Farm Hartbeesfontein 38 IQ.
Project GPS Coordinates	26° 0'7.63"S; 27°25'17.51"E
Environmental Assessment Practitioner for the project	Labesh (Pty) Ltd - Lourens de Villiers Tel: 082 789 6525 Email: info@labesh.co.za Fax to Email: 086 552 6837 Postal Address: PostNet Box #469, Private Bag X504, Sinoville, 0129

Labesh (Pty) Ltd.



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Email: info@labesh.co.za

Please do not hesitate to contact me should you require any additional information or if any of the information provided in this letter is unclear.

Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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April 11, 2022

Department of Human Settlements
Private Bag X2099
Mmabatho
2735

Attention: Hitenaki Mhlongo

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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 Email: info@labesh.co.za

April 11, 2022

Department of Public Works and Roads
 131 Kruis Street
 Potchefstroom
 2520

Attention: Ms. H Pretorius

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd.



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Regards,

Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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 Email: info@labesh.co.za

April 11, 2022

Department of Public Works and Roads
 131 Kruis Street
 Potchefstroom
 2520

Attention: Mrs. M Mfikwe

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Regards,



Lourens de Villiers
Managing Director and Environmental Assessment Practitioner



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 Email: info@labesh.co.za

April 11, 2022

Department of Social Development
 Private Bag X6
 Mmabatho
 2735

Attention: Mr. Relebohile Mofokane

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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April 14, 2022

Rustenburg Local Municipality
PO Box 16
Rustenburg
0300

Attention: Municipal Manager

NOTIFICATION OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF ENVIRONMENTAL APPLICATION TO THE COMPETENT AURHORITY

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Labesh (Pty) Ltd.



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Regards,



Lourens de Villiers
Managing Director and Environmental Assessment Practitioner

Background Information Document (BID) – Organs of State



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 Tell: 087 230 8462
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 Email: info@labesh.co.za

BACKGROUND INFORMATION DOCUMENT – ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM. EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF THE ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

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Labesh (Pty) Ltd has been appointed by the applicant, ASTRAL Foods Ltd, in terms of Regulation 12 of the Environmental Impact Assessment Regulations (GNR. 982 of 4 December 2014), as amended, as the independent Environmental Assessment Practitioner (EAP) tasked with conducting the abovementioned application processes. Labesh complies with the necessary requirements of Regulation 13 of GNR. 982 of 4 December 2014 as amended.

DESCRIPTION OF CURRENT OPERATIONS

There are currently three (3) rearing sites operational onsite: Rearing Site 1 (R1) – Seven (7) rearing houses, each with a capacity of 7 000 birds; Rearing Site 2 (R2) - Seven (7) rearing houses, each with a capacity of 7 000 birds; and Rearing Site 3 (R3) - Seven (7) rearing houses, each with a capacity of 7 000 birds. Thus, a total of 147 000 birds.

PROJECT DESCRIPTION

The proposed project will entail the expansion of the Vlakfontein Breeder Farm. The proposed expansion will include the establishment and operation of: 1x Additional rearing house to Rearing Site 1 (R1); 1x Additional rearing house to Rearing Site 2 (R2); 1x Additional rearing house to Rearing Site 3 (R3); 1x New Rearing Site (R4) with a total of eight (8) rearing houses; 1x New Rearing Site (R5) with a total of eight (8) rearing houses; 1x New Laying Site (L1) with a total of six (6) houses; and 1x New Laying Site (L2) with a total of six (6) houses. The additional rearing house to rearing sites R1, R2 and R3 will house 7 000 birds per house and add a total of 21 000 birds to current operations. Through the establishment and operation of the two (2) new rearing sites (R4 and R5), a total of 112 000 birds will be added to current operations (8 houses per site at 7000 birds per house). For rearing sites a total of 133 000 birds will be added to current operations. The establishment and operation of the two (2) new laying sites (L1 and L2), will add a total of 78 000 birds to current operations (6 houses per site at 6500 birds per house). Alternatively, two (2) additional rearing sites (R6 & R7 and each with a total of 8 houses) and one (1) laying site (L3 with a total of 6 houses) have been identified for the proposed project and will be outlined as alternative sites within the required reports. For the alternative rearing sites (R6 & R7) a total of 112 000 birds will be added to operations and the alternative laying site (L3) will add 39 000 birds to operations. The proposed site footprint (inclusive of alternative sites) will be approximately 17ha in extent.

PROJECT LOCATION

Remainder of Portion 6 of the Farm Bokfontein 385 JQ; Portion 35 of the Farm Bokfontein 385 JQ; Remainder of Portion 33 of the Farm Bokfontein 385 JQ; Portion 39 of the Farm Bokfontein 385 JQ; Portion 34 of the Farm Bokfontein 385 JQ; Remainder of Portion 9 of the Farm Bokfontein 385 JQ; Portion 3 of the Farm Bokfontein 385 JQ and Portion 32 of the Farm Hartbeesfontein 38 IQ; Rustenburg Local Municipality, Bojanala District Municipality, North West Province.

GPS Coordinates: 26° 0'7.63"S; 27°25'17.51"E



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 Email: info@labesh.co.za

LEGISLATION RELEVANT TO THE PROJECT

The proposed project requires Environmental Authorisation for the following listed activities in terms of the Environmental Impact Assessment Regulations, 2014, as amended:

- GNR. 983 of 4 December 2014 (Listing Notice 1), as amended: Activity 5: The development and related operation of facilities or infrastructure for the concentration; of (ii) more than 5000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days.
- GNR. 983 of 4 December 2014 (Listing Notice 1), as amended: Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.
- GNR. 985 of 4 December 2014 (Listing Notice 3), as amended: Activity 12: 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 undertaken in accordance with a maintenance management plan. North West (iv) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.

The above-mentioned activities require a Basic Environmental Impact Assessment process to be conducted in support of the Environmental Authorisation application. The application will be submitted to the Competent Authority, the North West Department of Economic Development, Environment, Conservation and Tourism in due course. Upon acceptance of the application, the Competent Authority will issue a reference number for the application. This reference number will be communicated upon its receipt from the Competent Authority.

The following reports are applicable to this application for Environmental Authorisation:

- A Basic Assessment Report in accordance with Appendix 1 of the EIA Regulations, 2014, as amended; and
- An Environmental Management Programme in accordance with Appendix 4 of the EIA Regulations, 2014, as amended.

PUBLIC PARTICIPATION PROCESSES

The public participation processes for the above-mentioned application are conducted according to the requirements of Chapter 6 of the EIA Regulations of 4 December 2014, as amended. Registration of Interested and Affected Parties (I&AP's) for the Environmental Authorisation application will be available from 11 April 2022 to 25 April 2022. Should you wish to register as an Interested and Affected Party for the proposed project and subsequently be kept informed of the progress of the project and all public participation opportunities as the application process proceeds, please complete the "Interested and Affected Party" registration form that forms part of this BID. Completed "Interested and Affected Party" registration forms should please be submitted to the EAP for the project, Lourens de Villiers, at the contact details provided below. Alternatively, you may also submit your name, contact information and interest in the matter, in writing, to the EAP at the contact details provided. Please send the registration information to the EAP before or on the **25th of April 2022**.

As required in the EIA Regulations, site notice boards will/have been placed on the project property boundary and a newspaper advertisement will be placed in the Beeld Newspaper on the 12th of April 2022.

The Basic Assessment Report will be made available to the public for review and commenting for a period of 30 days, at a later stage during this public participation process (exact dates will be communicated to registered I&APs). Electronic copies of the report will be provided to registered Interested and Affected Parties via email or registered post. Please inform us should you require a hard copy of the report.



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Should you require any additional information, please do not hesitate to contact the EAP at the details provided below.

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Postal Address: PostNet Box #469, Private Bag X504, Sinoville, 0129

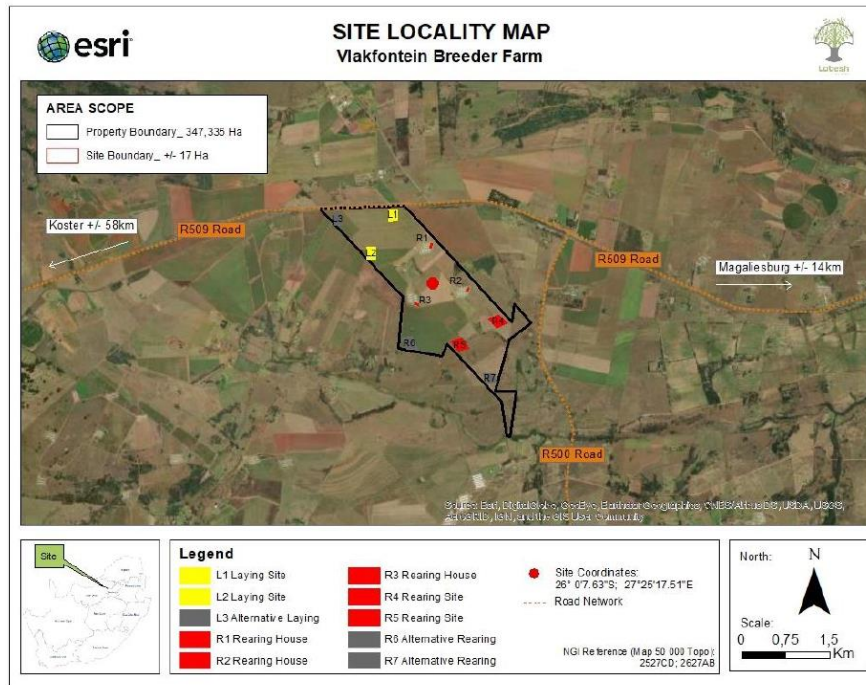


Figure 1: Site Locality Map

INTERESTED AND AFFECTED PARTY REGISTRATION FORM						
EXPANSION OF VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF THE APPLICATION TO THE COMPETENT AUTHORITY.						
TITLE						
NAME						
SURNAME						
DO YOU REPRESENT AN ORGANISATION? IF SO, PLEASE SPECIFY ORGANISATION NAME						
CELL PHONE NUMBER						
TELEPHONE NUMBER (H)						
TELEPHONE NUMBER (W)						
FAX NUMBER						
EMAIL ADDRESS						
PHYSICAL ADDRESS						
FARM NAME AND PORTION (IF APPLICABLE)						
POSTAL ADDRESS						
PREFERRED WRITTEN CONTACT METHOD	EMAIL	<input type="checkbox"/>	FAX	<input type="checkbox"/>	POST	<input type="checkbox"/>
PREFERRED TELEPHONIC CONTACT METHOD	CELL	<input type="checkbox"/>	HOME	<input type="checkbox"/>	WORK	<input type="checkbox"/>
ARE THERE ANY OTHER PARTIES THAT YOU FEEL SHOULD BE NOTIFIED OF THIS PROPOSED PROJECT? IF SO, PLEASE PROVIDE CONTACT DETAILS FOR SAID PARTIES						
PLEASE INDICATE WHETHER YOU HAVE ANY COMMENTS OR CONCERNS REGARDING THE PROPOSED PROJECT	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	<input type="checkbox"/>	
IF YES, PLEASE DETAIL YOUR COMMENTS IN THE SECTION PROVIDED BELOW (ATTACH EXTRA PAGES IF NECESSARY)						

Background Information Document (BID) – I&APs



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Email: info@labesh.co.za

BACKGROUND INFORMATION DOCUMENT – ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE FOLLOWING PROJECT: EXPANSION OF THE VLAKFONTEIN BREEDER FARM. EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF THE ENVIRONMENTAL APPLICATION TO THE COMPETENT AUTHORITY

This Background Information Document (BID) serves to inform you, as a potential Interested and Affected Party (I&AP), of the application for Environmental Authorisation for the proposed Expansion of the Vlakfontein Breeder Farm project. The Environmental Authorisation application will be lodged with the North West Department of Economic Development, Environment, Conservation and Tourism (the Competent Authority [CA]) in terms of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment (EIA) Regulations, 2014 (Regulations in terms of Sections 24(5) and 44 of the NEMA, 1998), as amended.

Labesh (Pty) Ltd has been appointed by the applicant, ASTRAL Foods Ltd, in terms of Regulation 12 of the Environmental Impact Assessment Regulations (GNR. 982 of 4 December 2014), as amended, as the independent Environmental Assessment Practitioner (EAP) tasked with conducting the abovementioned application processes. Labesh complies with the necessary requirements of Regulation 13 of GNR. 982 of 4 December 2014 as amended.

DESCRIPTION OF CURRENT OPERATIONS

There are currently three (3) rearing sites operational onsite: Rearing Site 1 (R1) – Seven (7) rearing houses, each with a capacity of 7 000 birds; Rearing Site 2 (R2) – Seven (7) rearing houses, each with a capacity of 7 000 birds; and Rearing Site 3 (R3) – Seven (7) rearing houses, each with a capacity of 7 000 birds. Thus, a total of 147 000 birds.

PROJECT DESCRIPTION

The proposed project will entail the expansion of the Vlakfontein Breeder Farm. The proposed expansion will include the establishment and operation of: 1x Additional rearing house to Rearing Site 1 (R1); 1x Additional rearing house to Rearing Site 2 (R2); 1x Additional rearing house to Rearing Site 3 (R3); 1x New Rearing Site (R4) with a total of eight (8) rearing houses; 1x New Rearing Site (R5) with a total of eight (8) rearing houses; 1x New Laying Site (L1) with a total of six (6) houses; and 1x New Laying Site (L2) with a total of six (6) houses. The additional rearing house to rearing sites R1, R2 and R3 will house 7 000 birds per house and add a total of 21 000 birds to current operations. Through the establishment and operation of the two (2) new rearing sites (R4 and R5), a total of 112 000 birds will be added to current operations (8 houses per site at 7000 birds per house). For rearing sites a total of 133 000 birds will be added to current operations. The establishment and operation of the two (2) new laying sites (L1 and L2), will add a total of 78 000 birds to current operations (6 houses per site at 6500 birds per house). Alternatively, two (2) additional rearing sites (R6 & R7 and each with a total of 8 houses) and one (1) laying site (L3 with a total of 6 houses) have been identified for the proposed project and will be outlined as alternative sites within the required reports. For the alternative rearing sites (R6 & R7) a total of 112 000 birds will be added to operations and the alternative laying site (L3) will add 39 000 birds to operations. The proposed site footprint (inclusive of alternative sites) will be approximately 17ha in extent.

PROJECT LOCATION

Remainder of Portion 6 of the Farm Bokfontein 385 JQ; Portion 35 of the Farm Bokfontein 385 JQ; Remainder of Portion 33 of the Farm Bokfontein 385 JQ; Portion 39 of the Farm Bokfontein 385 JQ; Portion 34 of the Farm Bokfontein 385 JQ; Remainder of Portion 9 of the Farm Bokfontein 385 JQ; Portion 3 of the Farm Bokfontein 385 JQ and Portion 32 of the Farm Hartbeesfontein 38 IQ; Rustenburg Local Municipality, Bojanala District Municipality, North West Province.

GPS Coordinates: 26° 0'7.63"S; 27°25'17.51"E



Postnet Box 469, Private Bag X504, Sinoville, 0129
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Email: info@labesh.co.za

LEGISLATION RELEVANT TO THE PROJECT

The proposed project requires Environmental Authorisation for the following listed activities in terms of the Environmental Impact Assessment Regulations, 2014, as amended:

- GNR. 983 of 4 December 2014 (Listing Notice 1), as amended: Activity 5: The development and related operation of facilities or infrastructure for the concentration; of (ii) more than 5000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days.
- GNR. 983 of 4 December 2014 (Listing Notice 1), as amended: Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.
- GNR. 985 of 4 December 2014 (Listing Notice 3), as amended: Activity 12: 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 undertaken in accordance with a maintenance management plan. North West (iv) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.

The above-mentioned activities require a Basic Environmental Impact Assessment process to be conducted in support of the Environmental Authorisation application. The application will be submitted to the Competent Authority, the North West Department of Economic Development, Environment, Conservation and Tourism in due course. Upon acceptance of the application, the Competent Authority will issue a reference number for the application. This reference number will be communicated upon its receipt from the Competent Authority.

The following reports are applicable to this application for Environmental Authorisation:

- A Basic Assessment Report in accordance with Appendix 1 of the EIA Regulations, 2014, as amended; and
- An Environmental Management Programme in accordance with Appendix 4 of the EIA Regulations, 2014, as amended.

PUBLIC PARTICIPATION PROCESSES

The public participation processes for the above-mentioned application are conducted according to the requirements of Chapter 6 of the EIA Regulations of 4 December 2014, as amended. Registration of Interested and Affected Parties (I&AP's) for the Environmental Authorisation application will be available from 25 April 2022 to 12 May 2022. Should you wish to register as an Interested and Affected Party for the proposed project and subsequently be kept informed of the progress of the project and all public participation opportunities as the application process proceeds, please complete the "Interested and Affected Party" registration form that forms part of this BID. Completed "Interested and Affected Party" registration forms should please be submitted to the EAP for the project, Lourens de Villiers, at the contact details provided below. Alternatively, you may also submit your name, contact information and interest in the matter, in writing, to the EAP at the contact details provided. Please send the registration information to the EAP before or on the **12th of May 2022**.

As required in the EIA Regulations, site notice boards will/have been placed on the project property boundary and a newspaper advertisement was placed in the Beeld Newspaper on the 12th of April 2022.

The Basic Assessment Report will be made available to the public for review and commenting for a period of 30 days, at a later stage during this public participation process (exact dates will be communicated to registered I&APs). Electronic copies of the report will be provided to registered Interested and Affected Parties via email or registered post. Please inform us should you require a hard copy of the report.



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Should you require any additional information, please do not hesitate to contact the EAP at the details provided below.

Labesh (Pty) Ltd – Lourens de Villiers
Tel: 082 789 6525
Email: info@labesh.co.za
Fax to Email: 086 552 6837
Postal Address: PostNet Box #469, Private Bag X504, Sinoville, 0129

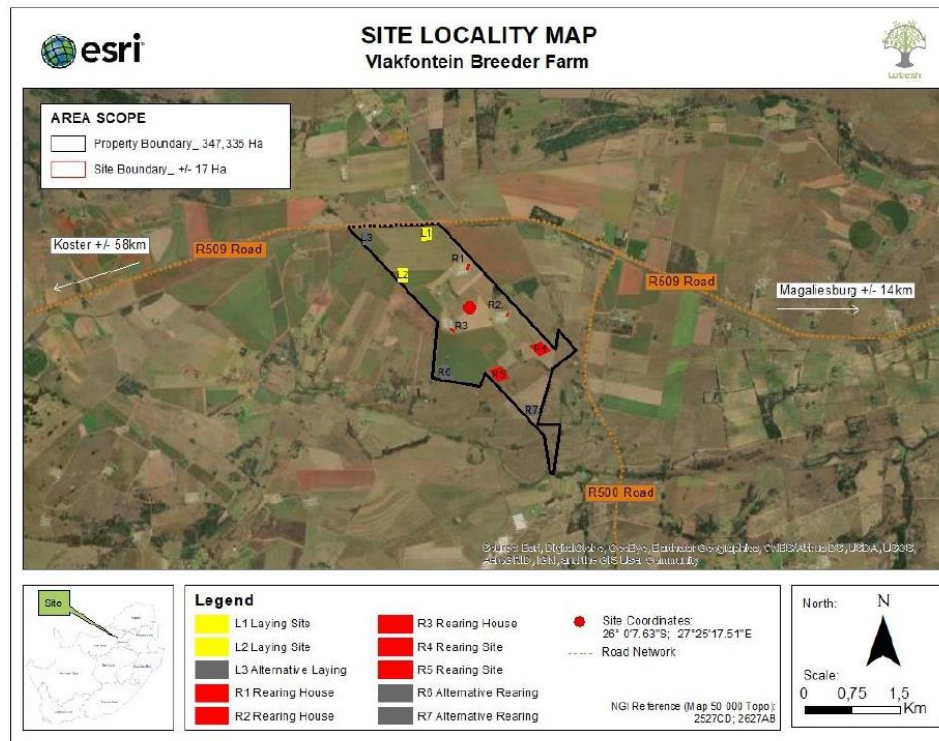


Figure 1: Site Locality Map

INTERESTED AND AFFECTED PARTY REGISTRATION FORM						
EXPANSION OF VLAKFONTEIN BREEDER FARM; EIA REFERENCE NUMBER: TO BE CONFIRMED UPON SUBMISSION OF THE APPLICATION TO THE COMPETENT AUTHORITY.						
TITLE						
NAME						
SURNAME						
DO YOU REPRESENT AN ORGANISATION? IF SO, PLEASE SPECIFY ORGANISATION NAME						
CELL PHONE NUMBER						
TELEPHONE NUMBER (H)						
TELEPHONE NUMBER (W)						
FAX NUMBER						
EMAIL ADDRESS						
PHYSICAL ADDRESS						
FARM NAME AND PORTION (IF APPLICABLE)						
POSTAL ADDRESS						
PREFERRED WRITTEN CONTACT METHOD		EMAIL		FAX		POST
PREFERRED TELEPHONIC CONTACT METHOD		CELL		HOME		WORK
ARE THERE ANY OTHER PARTIES THAT YOU FEEL SHOULD BE NOTIFIED OF THIS PROPOSED PROJECT? IF SO, PLEASE PROVIDE CONTACT DETAILS FOR SAID PARTIES						
PLEASE INDICATE WHETHER YOU HAVE ANY COMMENTS OR CONCERNS REGARDING THE PROPOSED PROJECT		YES		NO		
IF YES, PLEASE DETAIL YOUR COMMENTS IN THE SECTION PROVIDED BELOW (ATTACH EXTRA PAGES IF NECESSARY)						

Protection of Personal Information Act, Act No. 14 of 2013 (POPIA Act) Interested & Affected Parties Consent

Form



Environmental Assessment Practitioner: Lourens De Villiers
Postnet Box 469, Private Bag X504, Sinoville, 0129
Email: info@labesh.co.za
Cell: 082 789 6525

PROTECTION OF PERSONAL INFORMATION ACT, ACT NO. 14 OF 2013 (POPIA ACT) INTERESTED & AFFECTED PARTIES CONSENT FORM

1. Protection of Personal Information Act (Act No. 14 of 2013)

The Protection of Personal Information Act (Act No. 14 of 2013) came into effect in South Africa on 1 July 2021. The purpose of the POPIA Act is to:

" (a) give effect to the constitutional right to privacy, by safeguarding personal information when processed by a responsible party, subject to justifiable limitations that are at-

- (i) balancing the right to privacy against other rights, particularly the right of access of information; and
- (ii) protecting important interests, including the free flow of information within the Republic and across international borders;

(b) regulate the manner in which personal information may be processed, by establishing conditions, in harmony with international standards, that prescribe the minimum threshold requirements for the lawful processing of personal information;

(c) provide persons with rights and remedies to protect their personal information from processing that is not in accordance with this Act; and

(d) establish voluntary and compulsory measures, including the establishment of an Information Regulator, to ensure respect for and to promote, enforce and fulfil the rights protected by this Act." (abstract taken from POPIA Act, 2013)

Section 3(3)(b) of the POPIA Act provides that the Act must be interpreted in a manner that does not prevent a private or public body from exercising (or performing) its powers, duties or functions in terms of the law as far as such powers, duties or functions relate to the processing of personal information and that such processing is in accordance with the POPIA Act or any other legislation (as referred to in Section 3(2) that regulates processing of personal information).

Section 9 of the POPIA Act requires that personal information collected must be processed lawfully and in a reasonable manner in order to not infringe the privacy of the data subject.

Section 12(1) of the POPIA Act provides that any personal information must be obtained directly from the data subject. **Section 12(2)(b) of the POPIA Act** provides that it is not necessary to comply with subsection 12(1), if, amongst other things, the data subject has consented to the collection of personal information from other sources.

Section 11(1)(a) of the POPIA Act provides that personal information collected may only be processed if the data subject consents to the processing. **Section 11(1)(c) of the POPIA Act** provides that personal information may only be processed if the processing complies with an obligation imposed by law on the responsible party.

Section 18(1) of the POPIA Act requires that if personal information is collected, the responsible party must take reasonably practicable steps to ensure that the data subject is aware of, amongst other things, the information being collected, the name and address of the responsible party (in this case the EAP and applicant), the purpose for which the information is collected, whether or not the supply of the information by the data subject is voluntary or mandatory, the consequence of the failure to provide the required information, further information such as the recipient of the information, as well as the existence of the right to object to the processing of the personal information. **Section 18(2) of the POPIA Act** requires that these steps must be taken, if information is collected directly from the data subject, before the information is collected, unless the data subject is already aware of such information.



Environmental Assessment Practitioner: Lourens De Villiers
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2. National Environmental Management Act (Act No. 107 of 1998), in terms of the Environmental Impact Assessment Regulations of 2014, as amended

Register of interested and affected parties

Regulation 42 of the Environmental Impact Assessment Regulations of 2014, as amended (EIA Regulations) provides for the opening and maintenance of an Interested and Affected Parties (I&APs) register, by the proponent or applicant, and which must contain personal information such as names, contact details and addresses. It is further required under Regulation 42 that the I&APs registers be submitted to the competent authority (CA). However, there is no legal requirement in the EIA Regulations of 2014, as amended that I&APs registers be included in the reports that are published for public participation and consultation processes or be made publicly available as part of the EIA process.

Comments and response information

Regulation 19(1)(a) of the Environmental Impact Assessment Regulations of 2014, as amended (EIA Regulations) provides that where a basic assessment must be applied to an application, the applicant must within 90 days of receipt of the application by the competent authority, submit a basic assessment report (BAR), inclusive of any specialist reports, an environmental management programme (EMP), or any other applicable plans, which have been subjected to a public participation process of at least 30 days and which reflects the incorporation of any comments received (including those of the competent authority). There are similar requirements for the scoping report (which must be submitted within 44 days of receipt of the application by the competent authority) and environmental impact assessment reports (which must be submitted within 106 days of acceptance of scoping report by the competent authority) required in terms of the EIA regulations.

Paragraph 3(h)(ii) of Appendix 1 of the EIA Regulations of 2014 as amended, requires that a full description of the process followed to reach the proposed preferred alternative within the site, including details of the public participation process undertaken (in terms of regulation 41 of the EIA Regulations), including copies of supporting document and inputs received, must be included in the basic assessment report. Additionally, subparagraph (iii) requires that a summary of issues raised by I&APs and an indication of the manner in which issues were incorporated, or reasons for not including them, must also be included in the basic assessment report. Content requirements for scoping reports (Appendix 2) and environmental impact assessment report (Appendix 3) contains similar requirements.

The applicant, or environmental assessment practitioner (EAP) on behalf of the applicant, is therefore required by law to submit reports, including comments received on such reports, summaries of issues raised, and an indication of the manner in which comments and issues raised were incorporated, or reasons for not incorporating comments and issues raised in the reports, where such are not incorporated.

It is not expressly required that names or personal information of those who provided comments should be included in reports. It is however appreciated that it is often the practice to include the name and details of the person/party who provided comments in the reports. Furthermore, it is necessary for the competent authority to be acquainted with the person/party who submitted comments when considering reports.



Environmental Assessment Practitioner: Lourens De Villiers
Postnet Box 469, Private Bag X504, Sinoville, 0129
Email: info@labesh.co.za
Cell: 082 789 6525

3. Interested and Affected Party Consent

To ensure compliance with the Protection of Personal Information Act, Act No. 14 of 2013 (POPIA Act), it is therefore required for you as an Interested and Affected Party to give adequate consent for Labesh (Pty) the EAP (acting on behalf of the applicant) to use personal information within reports. Personal information includes any names, surnames, addresses, contact numbers and email addresses that may be included in reports.

I give Labesh (Pty) Ltd (acting on behalf of the applicant) consent to use my personal information in reports that will be submitted to the competent authority for consideration as well as published for public participation or consultation processes and therefore be made publicly available.

I give Labesh (Pty) Ltd (acting on behalf of the applicant) consent to only use my personal information in reports that will be submitted to the competent authority for consideration. I do however not give consent for my personal information to be published for public participation or consultation processes and therefore may not be made publicly available.

I do not give Labesh (Pty) Ltd (acting on behalf of the applicant) consent to use my personal information in reports that will be submitted to the competent authority for consideration. I also do not give consent for my personal information to be published for public participation or consultation processes and therefore may not be made publicly available. I do however acknowledge that reports submitted by EAP's are meant to provide the competent authority with adequate information that will enable them to decide on applications received and that a lack of adequate information can have an influence on the decision-making process for applications.

Signed at: _____ on this ___ day of _____ 2022.

Signature

Appendix 2.2 – Written Notices – Emailed

Info

From: Info <info@labesh.co.za>
Sent: Thursday, 14 April 2022 12:21
To: 'pogisos@bojanala.gov.za'
 'tshepole@bojanala.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Bojanala District Municipality.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Pogiso Shikhwane

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
 Environmental Consultant
 Cell: 082 789 6525
 Email: antoinette@labesh.co.za

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 Simonsville 0129

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1

Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:47
To: 'bmohlakoana@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Agriculture and Rural Development.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Ms. Bonolo Mohlakoana

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
 Environmental Consultant
 Cell: 082 789 6525
 Email: antoinette@labesh.co.za

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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:41
To: 'cata@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Arts, Culture, Sport and Recreation.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Ms. N Bopela

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
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 Sinoville 0129

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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:46
To: 'bmofokeng@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Community Safety and Transport Management.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Ms. Bothale Mofokeng

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:44
To: 'sanders@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Cooperative Governance and Traditional Affairs.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Ms. Samantha Kanes

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:45
To: 'marcia@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Cooperative Governance and Traditional Affairs02.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Ms. Marcia Maseka

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:49
To: 'nmotsieng@nwpgg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Health.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Mr. OE Mongala

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:39
To: 'krabanye@gmail.com'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Human Settlements.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Kgotso Rabanye

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:40
To: 'Mhlango@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Human Settlements02.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Hitenaki Mhlongo

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

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EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:42
To: 'HPretorius@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Public Works and Roads.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Ms. H Pretorius

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:43
To: 'MMfikwe@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Public Works and Roads02.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Mrs. M Mfikwe

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

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Info

From: Info <info@labesh.co.za>
Sent: Monday, 11 April 2022 12:48
To: 'psiko@nwpg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Department of Social Development.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Mr. Relebohile Mofokane

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
 Environmental Consultant
 Cell: 082 789 6525
 Email: antoinette@labesh.co.za

Postnet Box 469
 Private Bag X504
 Sinoville 0129

Labesh
sustainable, natural resource management



Info

From: Info <info@labesh.co.za>
Sent: Thursday, 14 April 2022 12:20
To: 'vmakona@rustenburg.gov.za'
Cc: 'munman@rustenburg.gov.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: Rustenburg Local Municipality.pdf; BID_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Mr. Makona

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
Environmental Consultant
Cell: 082 789 6525
Email: antoinette@labesh.co.za

Postnet Box 469
Private Bag X504
Sinoville 0129

Labesh



antoINETTE

From: antoinette <antoINETTE@labesh.co.za>
Sent: Friday, 29 April 2022 09:22
To: 'hannes.uys@astralfoods.com'; 'Cornelius.Ellis@festive.co.za'
Cc: 'Handre van Niekerk'; lourens@labesh.co.za
Subject: RE: Vlakfontein - EIA - Public Participation Process
Attachments: POPIA Consent Form.pdf

Vind asb ook aangeheg die POPIA consent vorm. As deel van die POPIA wet moet ons toestemming verkry van die partye om hulle persoonlike besonderhede in die verslae te mag sit.

Vriendelike groete
 Antoinette

Antoinette Nieuwoudt
 Environmental Consultant
 Cell: 082 789 6525
 Email: antoinette@labesh.co.za

Postnet Box 469
 Private Bag X504
 Sinoville 0129

Labesh
sustainable, natural resource management



From: antoinette <antoINETTE@labesh.co.za>
Sent: Friday, 29 April 2022 09:19
To: 'hannes.uys@astralfoods.com' <hannes.uys@astralfoods.com>; 'Cornelius.Ellis@festive.co.za' <Cornelius.Ellis@festive.co.za>
Cc: 'Handre van Niekerk' <HandreVN@sivest.co.za>; lourens@labesh.co.za
Subject: FW: Vlakfontein - EIA - Public Participation Process

Goeie Dag Hannes en Cornelius

Vind asb aangeheg die gedeeltnommer kaart vir die bure asook 'n kopie van die BID en registrasie vorm.

Laat weet gerus indien daar enige vrae is.

Vriendelike groete
 Antoinette

Antoinette Nieuwoudt
 Environmental Consultant
 Cell: 082 789 6525
 Email: antoinette@labesh.co.za

Postnet Box 469
 Private Bag X504
 Sinoville 0129

Labesh
sustainable, natural resource management



From: Handre van Niekerk <HandreVN@sivest.co.za>
Sent: Thursday, 28 April 2022 11:51
To: Lourens de Villiers <lourens@labesh.co.za>
Cc: hannes.uys@astralfoods.com; Cornelius.Ellis@festive.co.za; antoinette <antoINETTE@labesh.co.za>
Subject: Re: Vlakfontein - EIA - Public Participation Process

Hi Lourens,

Bevestig asb gedeeltes wat ons Moët bekom?

Groete

Sent from my iPhone

On 28 Apr 2022, at 09:09, Lourens de Villiers <lourens@labesh.co.za> wrote:

Goeiedag Hannes en Cornelius,

Soos bespreek met julle wil ek asb net vra vir julle hulp om die bure ingelig te kry oor die projek.

Julle het genoem dat die Plaasbestuurder sal kan help met e-posse en of kontakbesonderhede.

Baie dankie en groete,

Lourens de Villiers
 Managing Director
 Cell: 082 789 6525
 Tel: 087 230 8462
 Fax: 086 406 0431
 Email: lourens@labesh.co.za

Postnet Box 469
 Private Bag X504
 Sinoville 0129

Labesh
sustainable, natural resource management



Info

From: Info <info@labesh.co.za>
Sent: Friday, 29 April 2022 10:18
To: 'niemen@skyafrica.co.za'
Subject: Public Participation Notification - Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm
Attachments: BID_Vlakfontein (AL).pdf; Notification Letter_Vlakfontein.pdf; POPIA Consent Form.pdf

Good day Mr Dry

Please find attached a Notification Letter, Background Information Document and POPIA Consent form relating to the following, for your attention please:

Environmental Authorisation Application for the following project: Expansion of the Vlakfontein Breeder Farm

EIA Reference Number: To be confirmed upon submission of Environmental Authorisation Application to the Competent Authority

Please do not hesitate to contact us should you require further information in this regard.

Regards,

Antoinette Nieuwoudt on behalf of Lourens de Villiers (EAP for the project).

Antoinette Nieuwoudt
Environmental Consultant
Cell: 082 789 6525
Email: antoinette@labesh.co.za

Postnet Box 469
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**NOTICE OF ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED EXPANSION OF THE
VLAKFONTEIN BREEDER FARM
EIA REF NO.: TO BE CONFIRMED UPON SUBMISSION OF EA APPLICATION TO THE COMPETENT
AUTHORITY**

This newspaper advertisement serves to inform you, as a potential Interested and Affected Party (I&AP), of the proposed application for Environmental Authorisation (EA) for the proposed Expansion of the Vlakfontein Breeder Farm project. The EA application will be lodged with the North West Department of Economic Development, Environment, Conservation and Tourism (Competent Authority) in terms of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended. Labesh (Pty) Ltd has been appointed by the applicant, ASTRAL Foods Ltd., in terms of Regulation 12 of the EIA Regulations (GNR. 982 of 4 December 2014), as amended, as the independent Environmental Assessment Practitioner (EAP) tasked with conducting the above mentioned application processes. Labesh complies with the necessary requirements of Regulation 13 of GNR. 982 of 4 December 2014, as amended.

CURRENT OPERATIONS:

There are currently three (3) rearing sites operational onsite: Rearing Site 1 (R1) – Seven (7) rearing houses, each with a capacity of 7 000 birds; Rearing Site 2 (R2) - Seven (7) rearing houses, each with a capacity of 7 000 birds; and Rearing Site 3 (R3) - Seven (7) rearing houses, each with a capacity of 7 000 birds. Thus, a total of 147 000 birds.

PROJECT DESCRIPTION:

The proposed project will entail the expansion of the Vlakfontein Breeder Farm. The proposed expansion will include the establishment and operation of: 1x Additional rearing house to Rearing Site 1 (R1); 1x Additional rearing house to Rearing Site 2 (R2); 1x Additional rearing house to Rearing Site 3 (R3); 1x New Rearing Site (R4) with a total of eight (8) rearing houses; 1x New Rearing Site (R5) with a total of eight (8) rearing houses; 1x New Laying Site (L1) with a total of six (6) houses; and 1x New Laying Site (L2) with a total of six (6) houses. The additional rearing house to rearing sites R1, R2 and R3 will house 7 000 birds per house and add a total of 21 000 birds to current operations. Through the establishment and operation of the two (2) new rearing sites (R4 and R5), a total of 112 000 birds will be added to current operations (8 houses per site at 7000 birds per house). For rearing sites a total of 133 000 birds will be added to current operations. The establishment and operation of the two (2) new laying sites (L1 and L2), will add a total of 78 000 birds to current operations (6 houses per site at 6500 birds per house). Alternatively, two (2) additional rearing sites (R6 & R7 and each with a total of 8 houses) and one (1) laying site (L3 with a total of 6 houses) have been identified for the proposed project and will be outlined as alternative sites within the required reports. For the alternative rearing sites (R6 & R7) a total of 112 000 birds will be added to operations and the alternative laying site (L3) will add 39 000 birds to operations. The proposed site footprint (inclusive of alternative sites) will be approximately 17ha in extent.

PROJECT LOCATION:

Remainder of Portion 6 of the Farm Bokfontein 385 JQ; Portion 35 of the Farm Bokfontein 385 JQ; Remainder of Portion 33 of the Farm Bokfontein 385 JQ; Portion 39 of the Farm Bokfontein 385 JQ; Portion 34 of the Farm Bokfontein 385 JQ; Remainder of Portion 9 of the Farm Bokfontein 385 JQ; Portion 3 of the Farm Bokfontein 385 JQ and Portion 32 of the Farm Hartbeesfontein 38 IQ; Rustenburg Local Municipality, Bojanala District Municipality, North West Province
GPS Coordinates: 26° 0'7.63"S; 27°25'17.51"E

APPLICABLE LEGISLATION: The proposed project requires EA for the following listed activities in terms of the EIA Regulations, 2014, as amended:

- GNR. 983 of 4 December 2014 (Listing Notice 1), as amended: Activity 5: The development and related operation of facilities or infrastructure for the concentration; of (ii) more than 5000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days.
- GNR. 983 of 4 December 2014 (Listing Notice 1), as amended: Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of

indigenous vegetation is required for (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

- GNR. 985 of 4 December 2014 (Listing Notice 3), as amended: Activity 12: 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 undertaken in accordance with a maintenance management plan. North West (iv) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.

PUBLIC PARTICIPATION PROCESSES: The public participation processes for the above mentioned applications are conducted according to the requirements of Chapter 6 of the EIA Regulations of 4 December 2014, as amended. Registration of Interested and Affected Parties (I&AP's) for the Environmental Authorisation application will be available from 11 April 2022 to 25 April 2022. Should you wish to register as an I&AP for the proposed project and be kept informed of the progress of the project and public participation opportunities, please request and complete an "Interested and Affected Party" registration form (obtainable from the EAP). Completed "Interested and Affected Party" registration forms should please be submitted to the EAP for the project, Lourens de Villiers, at the contact details provided below. Alternatively, you may also submit your name, contact information and interest in the matter, in writing, to the EAP at the contact details provided. Please send the registration information to the EAP before or on the **25th of April 2022**. As required in the EIA Regulations, site notice boards will be placed on the project property boundary. The Basic Assessment Report will be made available to the public for review and commenting for a period of 30 days, (exact dates will be communicated to registered I&APs). Electronic copies of the report will be provided to registered I&APs via email or registered post. Please inform us should you require a hard copy of the report. Should you require any additional information, please do not hesitate to contact the EAP at the details provided below.

Labesh (Pty) Ltd: Lourens de Villiers - Tel: 082 789 6525; Email: info@labesh.co.za; Fax to Email: 086 552 6837; Postal Address: PostNet Box #469, Private Bag X504, Sinoville, 0129.

Appendix 4 – Communications to and from Interested and Affected Parties

antoINETTE

From: antoinette <antoINETTE@labesh.co.za>
Sent: Friday, 29 April 2022 09:22
To: 'hannes.uys@astralfoods.com'; 'Cornelius.Ellis@festive.co.za'
Cc: 'Handre van Niekerk'; lourens@labesh.co.za
Subject: RE: Vlakfontein - EIA - Public Participation Process
Attachments: POPIA Consent Form.pdf

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Vriendelike groete
Antoinette

Antoinette Nieuwoudt
Environmental Consultant
Cell: 082 789 6525
Email: antoinette@labesh.co.za

Postnet Box 469
Private Bag X504
Sinoville 0129

Labesh
ability to sustain



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Cc: 'Handre van Niekerk' <HandreVN@sivest.co.za>; lourens@labesh.co.za
Subject: FW: Vlakfontein - EIA - Public Participation Process

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Subject: Re: Vlaktefontein - EIA - Public Participation Process

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Julle het genoem dat die Plaasbestuurder sal kan help met e-posse en of kontakbesonderhede.

Baie dankie en groete,

Lourens de Villiers
Managing Director
Cell: 082 789 6525
Tel: 087 230 8462
Fax: 086 406 0431
Email: lourens@labesh.co.za

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Private Bag X504
Sinoville 0129



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

No public or stakeholder meetings have been held.

Appendix 6 – Comments and responses report

No comments have been received from Interested & Affected Parties.

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

No comments have been received on the Basic Assessment Report.

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

There has been no amendments to the BA Report.

Appendix 9 – Copy of the registered I&APs

Farm/Association	Contact via
Remainder of Portion 10 of the Farm Bokfontein 385 IQ	To be confirmed upon submission of POPIA Act consent form.
Remainder of Portion 20 of the Farm Bokfontein 385 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 67 of the Farm Bokfontein 385 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 66 of the Farm Bokfontein 385 IQ	To be confirmed upon submission of POPIA Act consent form.
Remainder of Portion 1 of the Farm Bokfontein 385 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 12 of the Farm Platklip 40 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 1081 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Remainder of Portion 22 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 30 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 94 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 78 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 82 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 69 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 11 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 96 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 95 of the Farm Hartbeesfontein 38 IQ	To be confirmed upon submission of POPIA Act consent form.
Portion 16 of the Farm Cyferfontein 35 IQ	To be confirmed upon submission of POPIA Act consent form.
North West Department of Economic Development, Environment, Conservation and Tourism	Contact person: Ouma Skosana Contact Number: 018 389 5156 Email: oskosana@nwpg.gov.za
South African Heritage Resources Agency (SAHRA)	SAHRIS website

APPENDIX D – Specialist Studies

The specialist studies for this project are attached to this report.

APPENDIX E – Other Information

- The Screening Report for an Environmental Authorization as required by the 2014 EIA Regulations are attached to this report.
- The Environmental Management Programme (EMP) for this project are attached to this report.



LABESH

ENVIRONMENTAL CONSULTANTS

ABILITY TO SUSTAIN . . .

MISSION

Our mission at Labesh is to be a client focused company that is able and accountable and delivers a quality service on time.

VISION

To provide solid, scientific solutions in a socially challenged environment where the outcome is harmonious to people and the environment.

INDUSTRIES



SERVICES & EXPERTISE





LABESH

ENVIRONMENTAL CONSULTANTS

MORE THAN 200 . . .

ENVIRONMENTAL
IMPACT
ASSESSMENTS
(EIA'S)

WASTE LICENSES

AIR EMISSION
LICENSES

WATER-USE
LICENSES

RECTIFICATION
APPLICATIONS



DIRECTOR / FOUNDER

LOURENS DE VILLIERS

B.Sc Earth Science; Hons B.Sc Geography and Environmental Studies; M.Sc Water Resource Management

Email: lourens@labesh.co.za / info@labesh.co.za

Cell: 082 789 6525



LOURENS DE VILLIERS

DIRECTOR / FOUNDER

PERSONAL PROFILE

I regard myself as a well renowned Environmental Assessment Practitioner with 18 years of experience in the discipline of environmental assessment and management.

I value the importance of a collective approach from various disciplines in order to establish a more sustainable outcome.

I am privileged to have a broad client base with the majority of them being personally serviced for more than 10 years.

SKILLS & INTERESTS

- Principle Environmental Assessment Practitioner
- British Standard International ISO 14001 Lead Environmental Auditor
- International Global GAP Farm Assurer
- Plant Propagator

RESUME

WORK HISTORY

Director / Founder

Labesh (Pty) Ltd, 2016 to Present

- Conducting EIA's
- Compiling EMP's for EIA's
- Conducting due diligence audits
- Conducting legal compliance audits
- Environmental management performance audits
- Natural resource optimization strategy

Director and Partner

Shangoni Management Services (Pty) Ltd , 2011 to 2016

- Conducting EIA's
- Compiling EMP's for EIA's
- Conducting due diligence audits
- Conducting legal compliance audits
- Internal ISO 14001 audits
- External ISO 14001 certification audits

Director

Prohibeo Environmental Management Solutions, 2004 to 2011

- Conducting EIA's
- Compiling EMP's for EIA's
- Compiling Soil and Land Capability Assessments as part of EIA's
- Conducting due diligence audits
- Conducting legal compliance audits
- Environmental management performance audits
- Natural resource optimization strategy

Manager

Newtown Associates Environmental Services CC, 2003 to 2004

- Conducting of EMP's for mining industry
- Conducting EMP performance assessments for mining industry
- Compiling Soil and Land Capability Assessments as part of EIA's
- Conducting EIA's
- Conducting EMP's for EIA's
- Conducting due diligence audits
- Conducting legal compliance audits
- Conducting Environmental Risk Assessments

Environmental Consultant

Helio Alliance (Pty) Ltd, 2002 to 2003

- Conducting of EMP's for mining industry
- Conducting EMP performance assessments for mining industry
- Compiling Soil and Land Capability Assessments as part of EIA's
- Conducting EIA's
- Conducting EMP's for EIA's
- Conducting due diligence audits
- Conducting legal compliance audits
- Conducting Environmental Risk Assessments



LOURENS DE VILLIERS

DIRECTOR / FOUNDER

GET IN TOUCH

Mobile: 082 789 6525

Email: lourens@labesh.co.za

Residential Address: Plot 24, Soutpan Road,
Haakdoornboom, Pretoria 0200

Postal Address: Postnet Box 469, Private Bag
X504, Sinoville, 0129

RESUME

ACADEMIC BACKGROUND

University of Pretoria

M.Sc Water Resource Management, 2003

North West University

B.Sc (Hons) Geography and Environmental Studies, 1999

North West University

B.Sc Earth Science, 1998

COURSES COMPLETED

1998 - 1999 : Prestige Leadership Development

2000 : Advanced EMS Auditing Course for Quality and Environmental Professionals

2002 : Public Presentation Skills

2010 : Implementation of Environmental Management Systems

2010 : Auditing Environmental Management Systems

2010 : Environmental Law

2014 : Waste Classification

2015 : Advanced HACCP

2015 : Train the Trainer

2016 : Transition from ISO 14001:2004 to ISO 14001: 2015 - Environmental Management Systems.

2017 & 2019: Global GAP International Farm Assurer