



DRAFT BASIC ASSESSMENT REPORT

FOR

**PROPOSED HAAKDOORNLAAGTE BROILERS
(PORTION 11 OF THE FARM HAAKDOORNLAAGTE 277 JR)**

REF: GAUT 002/20-21/E2814

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February 2021

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REPORT DETAILS

Title:	Draft Basic Assessment Report for proposed Haakdoornlaagte Broilers.
Purpose of this report	<p>The purpose of this BA Report is to:</p> <ul style="list-style-type: none"> • Present the proposed project and the need for the project; • Describe the affected environment at a sufficient level of detail to facilitate informed decision-making; • Provide an overview of the BA Process being followed, including public consultation; • Assess the predicted positive and negative impacts of the project on the environment; • Provide recommendations to avoid or mitigate negative impacts and to enhance the positive benefits of the project; • Provide an Environmental Management Programme (EMPr) for the proposed project. <p>This BA Report is the Draft Version submitted to the Gauteng Department of Agriculture and Rural Development for review.</p>
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ENVIRONMENTAL ASSESSMENT PRACTITIONER

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1.3 Verification Statement

I, Delia de Lange declare under oath that of –
The correctness of the information provided in the reports;
The inclusion of comments and inputs from stakeholders and I&AP's;
The inclusion of inputs and recommendations from the specialist reports where relevant;
Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs by interested and affected parties.



Signature

February 2021
Date

EXECUTIVE SUMMARY

Lokisa Environmental Consulting CC was appointed to undertake the necessary Environmental Impact Assessment (EIA) process for the proposed development of a broiler unit on Portion 11 of The Farm Haakdoornlaagte 277 JR within the jurisdiction of the City of Tshwane. The Gauteng Department of Agriculture and Rural Development (GDARD) is the Competent Authority.

These activities require an Environmental Authorisation (EA) before they may commence. The Basic Assessment (BA) procedure will apply to this application. An application is submitted in terms of Chapter 4 of the EIA Regulations (as amended 2017) promulgated in terms of the National Environmental Management Act (“NEMA”, Act No. 107 of 1998 as amended).

The public participation process undertaken involved consultation with the relevant authorities, non-government organisations (NGO's), neighbouring landowners, community members and other identified Interested and Affected Parties (I&AP's). A Newspaper advertisement was published at the outset of the project to inform the general public of the Basic Assessment (BA) Process. An advertisement was published in 'Die Beeld' Newspaper on 13 November 2020. Site notice boards were placed on site and notification sheets were also distributed to adjacent landowners/occupiers. Neighbouring property owners were additionally notified via registered mail.

The required Basic Assessment (BA) process is being conducted in 3 phases namely:

Phase 1: Project inception;

Phase 2: Basic Assessment and Environmental Management Programme; and

Phase 3: Authority review and response.

Two (2) different layout alternative options were investigated as alternatives.

The “No-go” alternative refers to the alternative of not embarking on the proposed development at all and this option would not result in any impacts during the construction or operational phase. This will however have negative socio economic impacts because no employment opportunities will be created, this proposed development will not be able to contribute to food security in the area and to the economy of the country at large. The no-go alternative will entail leaving the site in its present state.

The Basic Assessment Report provides a description of the activity, description of property and location and a description of environment, legislation, need and desirability, significant impacts and management as well as mitigation.

This BA Report has been drafted in accordance with the EIA Regulations (2014, as amended) and adheres to the requirements contained in Appendix 1 of GNR 326.

The Draft BA Report and Environmental Management Programme (EMPr) were circulated to registered I&AP's for review and comment as part of the legislated 30 day public participation process. Comments received during the Public Participation Process are included in the BA Report, which will be submitted to the Gauteng Department of Agriculture and Rural Development (GDARD) for a decision on Environmental Authorisation (EA). Construction cannot commence until such time as a positive EA is obtained.

The impacts of the project activities were determined by identifying the environmental aspects and then undertaking an environmental risk assessment to determine the significant environmental aspects.

The environmental impact assessment has considered all phases of the project, namely, construction and operational phases.

The rating system used is applied to the potential impact on the receiving environment and includes an objective evaluation of the mitigation of the impact. During the BA process, the impact of the proposed development on the biophysical and socio-economic environment was assessed. It was this assessment that allowed the EAP to make an informed analysis and provide an opinion on the proposed development.

In line with the requirements of the NEMA EIA Regulations (2014) (as amended 2017), this report provides, an explanation of the activities undertaken during the BA process and information on PPP was also provided. Importantly the report addresses the impacts identified that were anticipated for the development, as well as providing mitigation measures to ensure for the environmentally sustainable development of the development.

The findings conclude that there are no significant environmental fatal flaws that could prevent the proposed development to proceed, provided that the mitigation and management measures contained on the EMPr are implemented.

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DEFINITIONS

Activity (Development)	An action either planned or existing that may result in environmental impacts through pollution or resource use. For the purpose of this report, the terms 'activity' and 'development' are freely interchanged.
Alternatives	Different means of meeting the general purpose and requirements of the activity, which may include site or location alternatives; alternatives to the type of activity being undertaken; the design or layout of the activity; the technology to be used in the activity and the operational aspects of the activity.
Applicant	The project proponent or developer responsible for submitting an environmental application to the relevant environmental authority for environmental authorisation.
Biodiversity	The diversity of animals, plants and other organisms found within and between ecosystems, habitats, and the ecological complexes.
Construction	The building, erection or establishment of a facility, structure or infrastructure that is necessary for the undertaking of a listed or specified activity but excludes any modification, alteration or expansion of such a facility, structure or infrastructure and excluding the reconstruction of the same facility in the same location, with the same capacity and footprint.
Cumulative Impact	The impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.
Decommissioning	The demolition of a building, facility, structure or infrastructure.
Derelict Land	means abandoned land or property where the lawful/legal land use right has not been exercised during the preceding ten year period (Regulation R326 of NEMA, 1998 (Act No. 107 of 1998));
Direct Impact	Impacts that are caused directly by the activity and generally occur at the same time and at the same place of the activity. These impacts are usually associated with the construction, operation or maintenance of an activity and are generally quantifiable.
Ecosystem	A dynamic system of plant, animal (including humans) and micro-organism communities and their non-living physical environment interacting as a functional unit. The basic structural unit of the biosphere, ecosystems are characterised by interdependent interaction between the component species and their physical surroundings. Each ecosystem occupies a space in which macro-scale conditions and interactions are relatively homogenous
Environment	In terms of the National Environmental Management Act (NEMA) (No 107 of 1998)(as amended), "Environment" means the surroundings within which humans exist and that are made up of: a) the land, water and atmosphere of the earth; b) micro-organisms, plants and animal life; c) any part or combination of (i) of (ii) and the interrelationships among and between them; and d) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.
Environmental Assessment	The generic term for all forms of environmental assessment for projects, plans, programmes or policies and includes methodologies or tools such as environmental impact assessments, strategic environmental assessments and risk assessments.
Environmental Authorisation	An authorisation issued by the competent authority in respect of a listed activity, or an activity which takes place within a sensitive environment.
Environmental	The individual responsible for planning, management and coordination

Assessment Practitioner (EAP)	of environmental impact assessments, strategic environmental assessments, environmental management programmes or any other appropriate environmental instrument introduced through the EIA Regulations.
Environmental Management	Ensuring that environmental concerns are included in all stages of development, so that development is sustainable and does not exceed the carrying capacity of the environment.
Environmental Management Programme (EMPr)	A detailed plan of action prepared to ensure that recommendations for enhancing or ensuring positive impacts and limiting or preventing negative environmental impacts are implemented during the life cycle of a project. This EMPr focuses on the construction phase, operation (maintenance) phase and decommissioning phase of the proposed project.
Environmental Impact	Change to the environment (biophysical, social and/ or economic), whether adverse or beneficial, wholly or partially, resulting from an organisation's activities, products or services.
Environmental Issue	A concern raised by a stakeholder, interested or affected parties about an existing or perceived environmental impact of an activity.
Fatal Flaw	Issue or conflict (real or perceived) that could result in developments being rejected or stopped. In the context of an environmental impact assessment a fatal flaw can be termed as an environmental issue that cannot be mitigated by any means
General Waste	Household water, construction rubble, garden waste and certain dry industrial and commercial waste, which does not pose an immediate threat to man or the environment.
Groundwater	Water in the ground that is in the zone of saturation from which wells, springs, and groundwater run-off are supplied.
Hazardous Waste	Waste that may cause ill health or increase mortality in humans, flora and fauna.
Hydrology	The science encompassing the behaviour of water as it occurs in the atmosphere, on the surface of the ground, and underground.
Important Areas	Sites that are important for the conservation of biodiversity in Gauteng; (Gauteng C-Plan Version 3)
Indirect Impacts	Indirect or induced changes that may occur as a result of the activity. These types of impacts include all of the potential impacts that do not manifest immediately when the activity is undertaken or which occur at a different place as a result of the activity.
Integrated Environmental Management	A philosophy that prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development and decision making process. The IEM philosophy (and principles) is interpreted as applying to the planning, assessment, implementation and management of any proposal (project, plan, programme or policy) or activity - at local, national and international level – that has a potentially significant effect on the environment. Implementation of this philosophy relies on the selection and application of appropriate tools for a particular proposal or activity. These may include environmental assessment tools (such as strategic environmental assessment and risk assessment), environmental management tools (such as monitoring, auditing and reporting) and decision-making tools (such as multi-criteria decision support systems or advisory councils).
Interested and Affected Party (I&AP)	Any person, group of persons or organisation interested in or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.
Irreplaceable Areas	Sites, which are essential in meeting targets set for the conservation of biodiversity in Gauteng; (Gauteng C-Plan Version 3)
Mitigate	The implementation of practical measures designed to avoid, reduce or remedy adverse impacts or enhance beneficial impacts of an action.
No-Go Option	In this instance the proposed activity would not take place, and the resulting environmental effects from taking no action are compared with

	the effects of permitting the proposed activity to go forward.
Public Participation Process	A process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters.
Rehabilitation	A measure aimed at reinstating an ecosystem to its original function and state (or as close as possible to its original function and state) following activities that have disrupted those functions.
Sensitive Environments	Any environment identified as being sensitive to the impacts of the development.
Significance	Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. magnitude, intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgements and science-based criteria (i.e. biophysical, social and economic).
Stakeholder Engagement	The process of engagement between stakeholders (the proponent, authorities and I&APs) during the planning, assessment, implementation and/or management of proposals or activities.
Sustainable Development Undeveloped	Development which meets the needs of current generations without hindering future generations from meeting their own needs. Means that no facilities, structures or infrastructure have been effected upon the land or property during the preceding 10 years.
Urban Areas	Means areas situated within the urban edge (as defined or adopted by the competent authority), or in instances where no urban edge or boundary has been defined or adopted, it refers to areas situated within the edge of built-up areas (Regulation R325 of NEMA,1998 (Act No. 107 of 1998));
Vacant	Means not occupied for the purpose of its lawful land use during the preceding ten year period.
Virgin Soil	Means land not cultivated for the preceding 10 years. (Regulation R325 of NEMA,1998 (Act No. 107 of 1998);
Watercourse	Means (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. (Regulation R327 of NEMA, 1998 (ACT NO. 107 OF 1998).
Wetland	Means 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. (Regulation 327 of NEMA, 1998 (ACT NO. 107 OF 1998).

ABBREVIATIONS

BID	Background Information Document
BSc	Bachelor of Science
CC	Close Corporation
CoT	City of Tshwane
C-Plan	Gauteng Conservation Plan Version 3.3
DEA	Department of Environmental Affairs
DWS	Department of Water and Sanitation
GDARD	Gauteng Department of Agriculture and Rural Development
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
Ha	Hectares
I&APs	Interested and Affected Parties
IDP's	Integrated Development Plans
Km	Kilometers
m	Meters
NEMA	National Environmental Management Act
NDP	The National Development Plan
OHSA	Occupational Health and Safety Act
(Pty) Ltd	Proprietary Limited
RDP	Reconstruction and Development Programme

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This application form is current as of 8 December 2014. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.**
4. **A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.**
5. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
6. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
8. An incomplete report may lead to an application for environmental authorisation being refused.
9. **Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation being refused.**
10. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation being refused.
11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
12. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the of the Environmental Affairs Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the of the Environmental Affairs Branch
Ground floor Diamond Building
11 Diagonal Street, Johannesburg

Administrative Unit telephone number: (011) 240 3377
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:						
File Reference Number:						
Application Number:						
Date Received:						

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

N/A

Is a closure plan applicable for this application and has it been included in this report? **NO**

if not, state reasons for not including the closure plan.

The Activity applied for does not relate to the decommissioning or closure of a facility and it is not envisaged that the development will be decommissioned.

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

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person? **YES**

If no, state reasons for not attaching the list.

Please refer to Appendix I.

Have State Departments including the competent authority commented? **NO**

If no, why?

Comment from the State Departments and the competent authority on the Draft Report is awaited.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

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

Proposed Haakdoornlaagte Broilers

Select the appropriate box

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

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

YES NO

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

Consent Use Application to be submitted to the Municipality to grant permission for the use of "Agriculture Industry" on the proposed property. The competent authority is the City of Tshwane.

If yes, have you applied for the authorisation(s)?

YES	NO
YES	NO

If yes, have you received approval(s)? (attach in appropriate appendix)

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	National & Provincial	27 November 1998
NEMA EIA Regulations, 2014 (Government Notice Nos. GN R982, R983, R984, R985) as amended 2017. <u>Activities listed under GN R983 (Listing Notice 1), as amended:</u> <u>Activity 5 – The development and related operation of facilities or infrastructure for the concentration of – (ii) more than 5 000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days; (iv) more than 25 000 chicks younger than 20 days per facility situated outside an urban</u>	National Department of Environmental Affairs and GDARD	2014

<p>area.</p> <p>Activity 27 – The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.</p> <p>Activity 40 – 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.</p> <p>Activity 67 – Phased activities for all activities – (i) listed in this Notice, which commenced on or after the effective date of this Notice or similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</p> <p>Activities listed under GN R985 (Listing Notice 3), as amended:</p> <p>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. c. Gauteng: ii. Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans.</p>		
<p>National Environmental Management: Biodiversity Act (Act No. 10 of 2004)</p>	<p>National Department of Environmental Affairs and GDARD</p>	<p>2004</p>
<p>National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA)</p>	<p>National Department of Environmental Affairs and GDARD</p>	<p>2008</p>
<p>National Water Act (Act No. 36 of 1998)</p>	<p>Department of Water and Sanitation</p>	<p>1998</p>
<p>National Heritage Resources Act (Act No. 25 of 1999)</p>	<p>SAHRA</p>	<p>1999</p>
<p>Occupational Health & Safety Act (Act No. 85</p>	<p>National</p>	<p>2001</p>

of 1993) (OHSA) as amended in July 2001, Including Major Hazard Installation Regulation, GNR 692, 30 July 2001.	Government	
Conservation of Agricultural Resources Act (Act No. 43 of 1983)	Department of Agriculture Forestry and Fisheries	1983
Reconstruction and Development Programme	National & Provincial	1995
National Development Plan	National Planning Commission	2011
National Screening Tool	National Department of Environmental Affairs	2019
Gauteng Conservation Plan (C-Plan Version 3.3)	GDARD	2011
Gauteng Provincial Environmental Management Framework	GDARD	2015
Gauteng Spatial Development Framework	Provincial	2011
The Gauteng Department of Agriculture and Rural Development's (GDARD) Requirements for Biodiversity Assessments (Version 3)	Gauteng Department of Agriculture and Rural Development	March 2014
Gauteng Spatial Development Framework	Provincial	2011
Gauteng Planning and Development Act (Act No. 3 of 2003)	Gauteng Provincial Legislature	2003
City of Tshwane: Draft 2017/21 Integrated Development Plan	City of Tshwane Metropolitan Municipality	2017
City of Tshwane: Metropolitan Spatial Development Framework (MSDF)	City of Tshwane Metropolitan Municipality	June 2012
City of Tshwane: Regional Spatial Development Framework (RSDF): Region 2	City of Tshwane Metropolitan Municipality	2018
City of Tshwane By-Laws	City of Tshwane Metropolitan Municipality	-

Description of compliance with the relevant legislation, policy or guideline:

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, 1998 (Act No. 107 of 1998)	NEMA establishes the basis for environmental governance and sets out the principles for decision-making on matters affecting the environment. The principles of the Act are provided in Section 2 and it is the responsibility of all organs of state to take these principles into account when making decisions that could affect

as amended).	<p>the environment.</p> <p>The proposed development does not occur in contrast with the principles and main objective of the Act.</p>
<p>NEMA EIA Regulations, 2014 (Government Notice Nos. GN R982, R983, R984, R985) as amended 2017.</p>	<p>The EIA process, applicable to this application, is determined by the Environmental Impact Regulations published in Government Notice R982 in Government Gazette No 38282 of 4 December 2014 promulgated under Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and amended in 2017.</p> <p>The EIA regulations inter alia describe the procedure for EIA and provide a description of activities that would require authorisation through either 1) a Basic Assessment (in terms of Government Notices R983 and R985 of 2014) or 2) Scoping and Environmental Impact Assessment (in terms of Government Notice R984 of 2014).</p> <p>An application is submitted in terms of Chapter 4 of the EIA Regulations as the proposed development triggers activities that require a Basic Assessment.</p>
<p>National Environmental Management: Biodiversity Act (Act No. 10 of 2004)</p>	<p>The objectives of this Act are:</p> <p>Within the framework of the National Environmental Management Act, to provide for –</p> <ul style="list-style-type: none"> (i) the management and conservation of biological diversity within the Republic and of the components of such biological diversity; (ii) the use of indigenous biological resources in a sustainable manner and (ii) the fair and equitable sharing among stakeholders of benefits arising from bioprospecting involving indigenous biological resources. <p>The proposed development does not occur in contrast with the objectives of the Act.</p>
<p>National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA)</p>	<p>The objective of this act is to protect health, well-being, and the environment by providing measures for-</p> <ul style="list-style-type: none"> • Minimising consumption of natural resources; • Avoiding and minimising the generation of waste; • Reducing, reusing, recycling and recovering waste; • Treating and safely disposing of waste as last resort; • Preventing pollution and ecological degradation; • Securing ecologically sustainable development while promoting justifiable economic and social development. <p>The proposed development does not occur in contrast with the objectives of the Act.</p>
<p>National Water Act (Act No. 36 of 1998)</p>	<p>The purpose of this Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways that takes into account amongst other factors:</p> <ul style="list-style-type: none"> • Promoting equitable access to water • Redressing the results of past racial and gender discrimination; • Promoting the efficient, sustainable and beneficial use of water

	<p>in the public interest;</p> <ul style="list-style-type: none"> • Facilitating social and economic development; • Providing for growing demand for water; • Protecting aquatic and associated ecosystems and their biological diversity; • Reducing and preventing pollution and degradation of water resources; • Meeting international obligations • Promoting dam safety; • Managing floods and drought. <p>The proposed development does not occur in contrast with the objectives of the Act.</p>
National Heritage Resources Act (Act No. 25 of 1999)	Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and, as they are valuable, finite, non-renewable and irreplaceable, they must be carefully managed to ensure their survival.
Occupational Health & Safety Act (Act No. 85 of 1993) (OHSA) as amended in July 2001, Including Major Hazard Installation Regulation, GNR 692, 30 July 2001.	<p>The main objective of the Act is to provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected herewith.</p> <p>The proposed development site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA) and the National Building Regulations.</p>
Conservation of Agricultural Resources Act (Act No. 43 of 1983)	The proposed development will ensure that no agricultural resources are impacted upon.
Reconstruction and Development Programme	<p>One of the six principles of the Reconstruction and Development programme is meeting basic needs and building the infrastructure.</p> <p>The RDP integrates growth, development, reconstruction, redistribution and reconciliation into a unified programme. The key link is an infrastructural programme that will provide access to modern and effective services such as electricity, water, telecommunications, transport, health, education and training for all our people.</p> <p>The proposed development does not contrast with one of the six principles of the RDP.</p>
National Development Plan	The National Development Plan (NDP) offers a long-term perspective. It defines a desired destination and identifies the role different sectors of society need to play in reaching that goal.

	<p>As a long-term strategic plan, it serves four broad objectives:</p> <ul style="list-style-type: none"> • Providing overarching goals for what the nation want to achieve by 2030. • Building consensus on the key obstacles to us achieving these goals and what needs to be done to overcome those obstacles. • Providing a shared long-term strategic framework within which more detailed planning can take place in order to advance the long-term goals set out in the NDP. • Creating a basis for making choices about how best to use limited resources. <p>The Plan aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and reduction of inequality. The core elements of a decent standard of living identified in the Plan are:</p> <ul style="list-style-type: none"> • Housing, water, electricity and sanitation • Safe and reliable public transport • Quality education and skills development • Safety and security • Quality health care • Social protection • Employment • Recreation and leisure • Clean environment • Adequate nutrition <p>The proposed development does not occur in contrast with the NDP.</p>
<p>National Screening Tool</p>	<p>The National Web based Environmental Screening Tool is a geographically based web-enabled application which allows a proponent intending to submit an application for Environmental Authorisation in terms of the Environmental Impact Assessment Regulations (2014) as amended, to screen the proposed site for any environmental sensitivity.</p> <p>Objectives of the screening tool:</p> <ul style="list-style-type: none"> • The National Development Plan calls for an efficient and effective environmental legislative process including the Environmental Impact Assessment Process. • The development of the National Web based Environmental Screening Tool forms part of ensuring on-going improvement of the EIA process to ensure efficiency and effectiveness. • The Screening Tool aims to flag areas of potential environmental sensitivity in relation to a proposed site and development footprint. • The tool enables the applicant to manipulate the development footprint on a site to avoid environmental sensitivities. • The report generates a list of specialist assessments that should form part of the assessment reports to be submitted with the EIA application based on the national sector classification and the sensitivity of the site. • Supports the implementation of the Assessment Protocols. • Assessment Protocols provide minimum information to be

	<p>included in a specialist report to facilitate the decision making process.</p> <ul style="list-style-type: none"> • The tool identifies any specific exclusions, restriction, prohibitions or any exceptions to the EIA process that apply to a particular site as well as any site specific information that must be consulted in relation to the site. • In time to provide a mechanism to collect new environmental information surveyed or compiled by the specialists through the preparation of assessment reports for verification by data custodians for incorporation into relevant national data sets. <p>The Screening Tool also provides site specific EIA process and review information. Further to this, the Screening Tool identifies related exclusions and/or specific requirements including specialist studies applicable to the proposed site and or development, based on the national sector classification and the environmental sensitivity of the site.</p> <p>Finally the Screening Tool allows for the generating of a Screening Report referred to in Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended, whereby a Screening Report is required to accompany any application for Environmental Authorisation. In light of the above mentioned, a Screening Tool Report was prepared for the site and is included as an annexure to the Application Form.</p> <p>According to the National Screening Tool the following summaries of the development footprint environmental sensitivities were identified.</p> <table border="1" data-bbox="518 1142 1333 1619"> <thead> <tr> <th>Theme</th> <th>Very High sensitivity</th> <th>High Sensitivity</th> <th>Medium Sensitivity</th> <th>Low Sensitivity</th> </tr> </thead> <tbody> <tr> <td>Agriculture Theme</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Animal Species Theme</td> <td></td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>Aquatic Biodiversity Theme</td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>Civil Aviation Theme</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Plant Species Theme</td> <td></td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>Defence Theme</td> <td></td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>Terrestrial Biodiversity Theme</td> <td>X</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Theme	Very High sensitivity	High Sensitivity	Medium Sensitivity	Low Sensitivity	Agriculture Theme		X			Animal Species Theme			X		Aquatic Biodiversity Theme				X	Civil Aviation Theme		X			Plant Species Theme			X		Defence Theme			X		Terrestrial Biodiversity Theme	X			
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<p>Gauteng Conservation Plan (C-Plan Version 3.3)</p>	<p>GDARD's (Gauteng Department of Agriculture and Rural Development) C-Plan (Gauteng Conservation Plan Version 3.3) was used to determine the sensitivities of the site and is provided in the figure below.</p> <p>Conservation planning was started in Gauteng in the year 2000 and the aim was to revise the C-Plan at least every 5 years. C-Plan Version 1 was produced in 2001 and was followed by version 2 in</p>																																								

2005. Version 2 was refined in 2007 and was named Version 2.1. The small size of the province made it feasible to conduct an extensive biodiversity survey, named BGAP, which aimed to provide the information on spatial occurrence of biodiversity necessary for rigorous conservation planning. C-Plan 3 represents priority areas for biodiversity conservation in the Gauteng province.

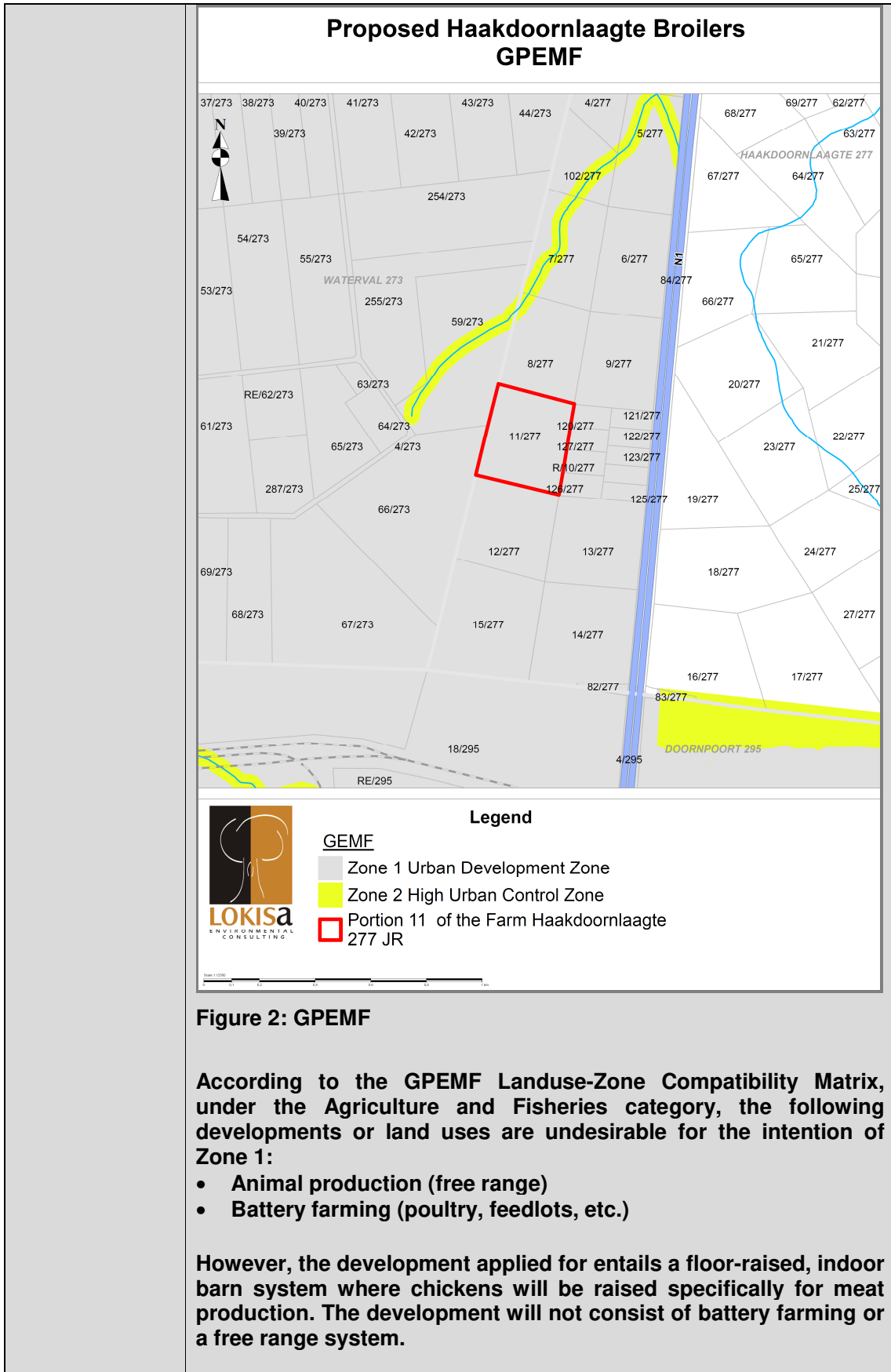
An extract of the sensitivities that could affect the site in terms of the C-Plan is provided below for ease of reference.



Figure 1: C-Plan

According to GDARD’s conservation plan (C-Plan version 3.3), the

	<p>study area is situated within a Critical Biodiversity Area (CBA). The CBA is considered an Important Area, for red listed plant and bird habitat and for primary vegetation.</p> <p>The study site is within the original extent of Marikana Thornveld, which is a threatened veld type (ecosystem) with a status of 'Vulnerable'.</p>
<p>Gauteng Provincial Environmental Management Framework</p>	<p>The guiding objectives that emerged during the course of the development of the GEMF are:</p> <ul style="list-style-type: none"> • To facilitate the optimal use of current industrial, mining land and other suitable derelict land for the development of non-polluting industrial and large commercial developments. • To protect Critical Biodiversity Areas (CBAs as defined in C-Plan 3.3) within urban and rural environments. • To ensure the proper integration of Ecological Support Areas (ESAs as defined in C-Plan 3.3) into rural land use change and development. • To use ESAs as defined in municipal bioregional plans in spatial planning of urban open space corridors and links within urban areas. • To focus on the sustainability of development through the implementation of initiatives such as: <ul style="list-style-type: none"> ➤ Energy efficiency programmes, plans and designs; ➤ Waste minimisation, reuse and recycling; ➤ Green infrastructure in urban areas; and ➤ Sustainable Drainage Systems (SuDS). <p>The Environmental Management Zones (EMZ) were derived from the desired state, the environmental sensitivity as well the unique control areas as identified in sections 1, 2 and 3. The EMZs were also presented to the Gauteng Planning Forum 6 where it was generally accepted as a suitable contribution to facilitate appropriate development in Gauteng. The EMZs also took the Gauteng Growth and Management Perspective, 2014, into account and is therefore aligned to the general development policy for Gauteng.</p> <p>Five EMZs were identified and overlaying those a further six Special Management Areas were identified where specific planning and policy measures are necessary to achieve the development objective of those areas.</p> <p>According to the GPEMF, the site is identified as the following Environmental Management Zone:</p> <ul style="list-style-type: none"> ➤ Zone 1: Urban Development Zone <p>An extract of the zones that could affect the site in terms of the GPEMF is provided below for ease of reference.</p>



<p>Gauteng Spatial Development Framework</p>	<p>The GSDF are in pursuit of planning for shared, equitable, sustainable and inclusive growth and development in the country. The Gauteng Provincial Government (GPG) seeks to:</p> <ul style="list-style-type: none"> • provide a clear future provincial spatial structure that is robust to accommodate growth and sustainability; • specify a clear set of spatial objectives for municipalities to achieve in order to ensure realisation of the future provincial spatial structure; • propose a set of plans that municipalities have to prepare in their pursuit of these objectives; • provide a common language and set of shared planning constructs for municipalities to use in their planning processes and plans; and • enable and direct growth. <p>The proposed development does not occur in contrast with the objectives of the GPG.</p>
<p>The Gauteng Department of Agriculture and Rural Development's (GDARD) Requirements for Biodiversity Assessments (Version 3)</p>	<p>The document provides guidelines for the minimum requirements for all biodiversity assessments when development is proposed.</p> <p>A Biodiversity Assessment is included under Appendix G.</p>
<p>City of Tshwane: Draft 2017/21 Integrated Development Plan</p>	<p>According to Section 25 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000), each municipal council must, after the start of its elected term, adopt a single, inclusive and strategic plan (Integrated Development Plan or IDP) for the development of the municipality which links, integrates and coordinates plans and takes into account proposals for the development of the municipality and which aligns the resources and capacity of the municipality with the implementation of the said plan.</p> <p>An Integrated Development Plan is a super plan for an area that gives an overall framework for development. It aims to co-ordinate the work of local and other spheres of government in a coherent plan to improve the quality of life for all the people living in an area. It takes into account the existing conditions and problems and resources available for development. It looks at economic and social development for the area as a whole. It is used by municipalities as a tool to plan short and long term future development.</p> <p>The 2017/21 IDP is the first IDP for the 2017–2021 term of office. It sets the agenda for the term of office, which will focus on the following three strategic framers: stabilisation, revitalisation and delivery.</p> <p>The following are the strategic pillars that will guide the</p>

	<p>development in the term of office:</p> <ul style="list-style-type: none"> • City that facilitates economic growth and job creation • City that cares for residents and promotes inclusivity • City that delivers excellent services and protects the environment • City that keeps residents safe • City that is open, honest and responsive <p>The proposed development does not occur in contrast with the IDP.</p>
<p>City of Tshwane: Metropolitan Spatial Development Framework (MSDF)</p>	<p>Every great city has a vision. In order to realise that vision, a strategy that responds to the various elements of that vision is required. The vision of the CoT is to become the African Capital City of Excellence.</p> <p>The purpose of a spatial framework for the city is to provide a spatial representation of the City Vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning of a pedestrian, vehicular and other movement patters; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development.</p> <p>The MSDF aims to address the following towards the achievement of the City vision:</p> <ul style="list-style-type: none"> • Addressing social need • Restructuring of a spatially inefficient City • Promotion of sustainable use of land resources • Strategic direction around infrastructure provision • Creating opportunities for both rural and urban areas • Guiding developers and investors as to appropriate investment localities • Rural management programmes to improve livelihoods and stimulate employment. <p>The proposed development does not occur in contrast with the MSDF.</p>
<p>City of Tshwane: Regional Spatial Development Framework (RSDF): Region 2</p>	<p>The Regionalized Spatial Development Frameworks for the different Regions in Tshwane collectively form the sum of the SDF. The SDF is considered to be the implementation mechanism of the spatial component for the Roadmap Towards Tshwane 2030, Municipal Spatial Development Framework, as well as other strategic policies with a spatial emphasis.</p> <p>A Spatial Development Framework guides and informs all development and forms part of the IDP in terms of Section 35 (2) of the MSA. The content of these plans “shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality”.</p> <p>A Spatial Development Framework inter alia must:</p> <ul style="list-style-type: none"> • Indicate where public and private development infrastructure investment should take place.

	<ul style="list-style-type: none"> • Indicate desired development and land use patterns for different areas. • Indicate where development of particular land uses should be discouraged or restricted. • Provide broad indication of the areas where priority spending should take place. • Provide guidelines for development and land use decision-making by the municipality.
<p>City of Tshwane By-Laws</p>	<p>Chapter 5, Section 12(6) of the City of Tshwane By-laws relating to the keeping of animals, birds and poultry and to businesses involving the keeping of animals, birds, poultry and pets states the following:</p> <p><i>'At least 100 m of clear unobstructed space must be maintained between any poultry house, poultry run or building or structure housing a battery system and –</i></p> <p><i>(a) The nearest point of any dwelling, other building or structure used for human habitation;</i></p> <p><i>(b) Any place where foodstuffs are stored or prepared for human consumption; and</i></p> <p><i>(c) The nearest boundary of any land'.</i></p> <p>The broiler houses proposed for the Proposal will be within 100m of the nearest dwelling and the nearest boundary of land. The boundary referred to, is the property to the north of the project site, being Portion 8 of the Farm Haakdoornlaagte 277 JR. This property also belongs to the applicant and the two properties are therefore managed as a single unit.</p> <p>There is also a dwelling situated approximately 60m north of the proposed broiler houses. This dwelling will be used as accommodation for the employees of the proposed broilers and will furthermore serve as an added measure of security.</p> <p>The Proposal will therefore not be a nuisance to neighbours as the broiler houses will not be in close proximity to neighbouring properties.</p> <p>The broiler houses proposed for Alternative 1 (Phase 3) will be within 100m of the nearest boundary of any land as it will be approximately 38m from the neighbouring properties to the west of the project site, being Portions 59 and 66 of the Farm Waterval 273 JR. The close proximity with neighbouring properties might cause a nuisance to the neighbours.</p>

3. ALTERNATIVES

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

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

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

Please describe the process followed to reach (decide on) the list of alternatives below

In terms of the NEMA Regulations, 2014 (as amended, 2017), the definition of alternatives is given as: 'Alternatives' in relation to a proposed activity, means different means of meeting the general purpose and requirement 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;**

Alternatives can therefore be used to achieve the same result as the originally proposed project in a way that potentially offset the negative implication of the original plan. However, alternatives that are to be considered must be reasonable and feasible.

(a) Location Alternative

The Applicant is the property owner of the proposed project site and therefore no location alternatives were investigated.

(b) Type of Activity Alternatives

No activity alternatives have been considered as the applicant wishes to expand the existing broiler unit and not any other livestock farming or cultivation of crops.

(c) Design / Layout Alternatives

Lokisa was provided with different layout drawings for the broiler houses proposed for the project.

Two (2) different layout alternative options were investigated as alternatives and are discussed in the section below.

(d) Technology Alternatives

Energy saving measures i.e. solar panels, and rainwater harvesting will be considered for future use as the applicant is committed to designing environmentally-friendly facilities, and therefore different energy saving and water saving technology were not investigated.

(e) Operational Alternatives

The broiler unit will consist of a floor-raised, indoor barn system where chickens will be raised specifically for meat production.

According to the South African Poultry Association (SAPA) Code of Practice (2018), "...Birds in Barn systems are free to roam within the confines of a shed which may have more than one level. The floor may be covered entirely with litter or partially and the rest of the floor area incorporating other material such as slats or wire mesh."

The space guidelines for broiler rearing in Barn Systems according to the SAPA Code of Practice (2018) are as follows:

Table 1: Space guidelines for broiler rearing in Barn Systems

Measure	Density
Bird density	Not to exceed 40 kg/m ²
Feeder space	
Pans with diameter of 30cm	70 birds per pan
Trough feeders	2.5 cm/bird
Water drinker space	
Troughs	2.0 cm/bird
Bell drinkers	1/100 birds
Nipple and cup drinkers	1/10 to 20 birds

- Houses shall be designed to provide chickens with a safe environment.
- Chicken house flooring shall allow for effective cleaning and disinfecting, preventing significant buildup of parasites and other pathogens. Where possible the floor should be concrete that is well maintained.
- Light intensity for the first 3 days shall be sufficient to encourage chicks to start eating normally. Thereafter light intensity shall provide a period of adequate illumination for normal daily feed and water intake.
- Heating and ventilation systems shall maintain the recommended temperature and ventilation with reasonable accuracy in order to prevent either overheating or chilling of the chickens.
- Chickens raised in floor pens shall have enough freedom of movement to be able to stand normally, turn around and stretch their wings without difficulty.
- The density of 40 kg live mass per square meter is the maximum density that should be applied under conditions of good ventilation and cooling systems by mechanical means. Where ventilation is supplied by natural convection, the density should be reduced appropriately.

Source: <http://www.sapoultry.co.za/pdf-docs/code-of-practice-sapa.pdf>

Different operational alternatives e.g. caged systems were not investigated as the cage density recommended by manufacturers is higher than most floor systems. Cages furthermore restrict the movement of animals in them and birds are unable to express natural behaviour as a result of flooring with insufficient litter.

(f) No-Go Option

The "No-go" alternative refers to the alternative of not embarking on the proposed development at all and this option would not result in any impacts during the construction or operational phase.

This will present both direct and indirect negative socio economic impacts such as:

No employment opportunities will be created

The proposed Haakdoornlaagte Broilers will create employment opportunities during the construction and operational phase. These opportunities will not come to fruition should the project not go ahead.

No profit generated (no positive impact on economy)

Farming can result in farmers having improved capacities to access capital, markets and value chains. This will result into investments that may lead to technology transfer and increased productivity. This will then result in the generation of profits for investors and farmers and tax income for governments. Should the no-go option be followed these positive impacts will not materialise.

No contribution to food security

The No-Go alternative will furthermore disable the proposed development with the further opportunity to contribute to the food security of the area.

The No-Go alternative was investigated and is discussed under Section E of this report.

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other(provide details of "other")	Description
1	Proposal	<p>The development entails the expansion of an existing chicken broiler facility (1800 chickens are currently housed in 3 existing structures for Phase 1). Phase 2 will consist of two broiler houses and associated infrastructure to accommodate 2500 chickens per broiler house and Phase 3 will consist of an additional two broiler houses and associated infrastructure to accommodate 2500 chickens per broiler house.</p> <p><u>Broiler Houses</u> Phases 2 and 3 of the project will consist of four new broiler houses to be 234m² in size, with a capacity of 2500 chickens each, to be situated on the northern portion of the property. The broiler houses will entail a floor-raised, indoor barn system where chickens will be raised specifically for meat production.</p>

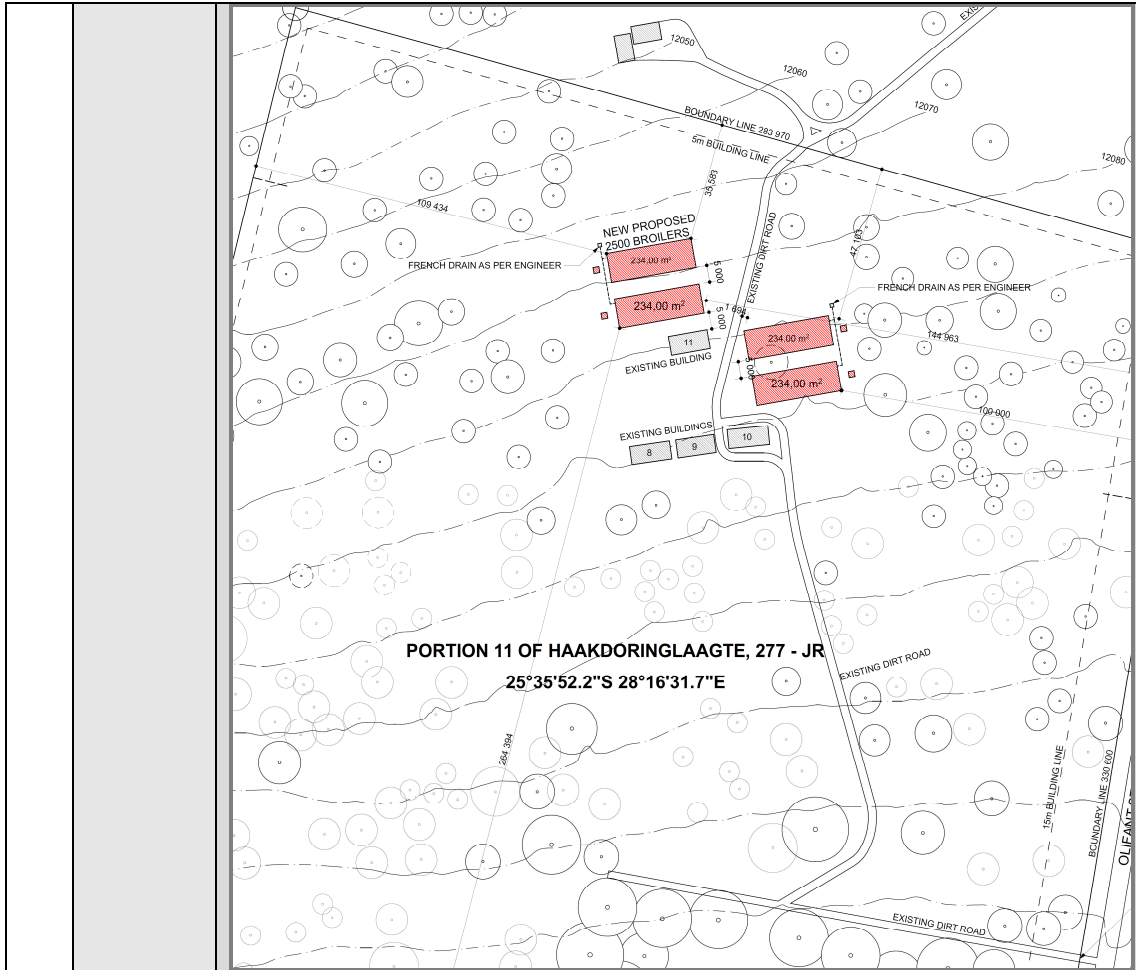


Figure 3: Layout Plan for Proposal

Water Supply

The development will make use of water from Magalies Water.

Electricity Supply

The development will make use of existing Eskom supply.

Cleaning of Broiler Houses

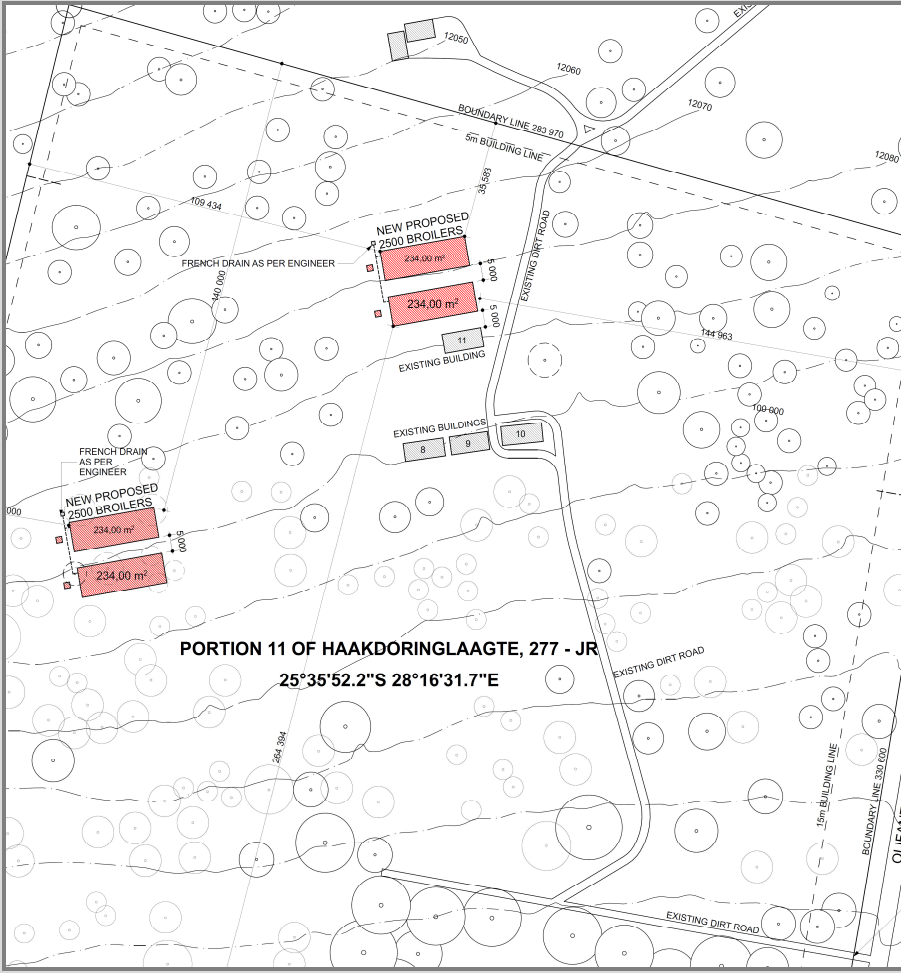
The broiler houses will be cleaned at the end of every production cycle, by removing all the manure together with the wooden shavings that were used for bedding material from the broiler house. The whole house is then sprayed with minimal disinfectant water from a high pressure sprayer.

Chicken Manure

Chicken manure will be taken from the broiler houses at the end of each cycle (6 weeks) and sold to farmers in the area to be used as fertilizer.

Manure will be preserved in a dry, enclosed area, covered by sheeting.

Chicken Mortalities

		<p>Mortalities will be removed to a mortality pit on the property. A product such as Decombuster will be used in the mortality pit. Decombuster Granules are fully degradable and enhance the performance of mortality pits by speeding up decomposition of animal carcasses. The capacity of the pit is increased along with the life of the pit. It does not contribute to the pollution of water and it contains no phenols or phosphates.</p>
2	Alternative 1	<p>Alternative 1 will differ from the proposal in that an alternative layout is proposed as per the layout plan below.</p> <p>Phase 2 of the proposed development will be the same as for the proposal, however Phase 3 will be situated on the western portion of the property.</p>  <p>Figure 4: Layout Plan (Alternative 1)</p>
3	Alternative 2	<p>No other alternative presented.</p>
	Etc.	

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

--

4. PHYSICAL SIZE OF THE ACTIVITY

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

Proposed activity (**Total environmental (landscaping, parking, etc.) and the building footprint**)

Size of the activity:

± 1 000 m²

Alternatives:

Alternative 1 (if any)

± 1 000 m²

Alternative 2 (if any)

Ha/ m²

or, for linear activities:

Proposed activity

Length of the activity:

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

m/km

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

Proposed activity

Size of the site/servitude:

9.8276 Ha

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

9.8276 Ha

Ha/m²

5. SITE ACCESS

Proposal

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

YES	NO
-----	----

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

m

Describe the type of access road planned:

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 1

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

YES	NO
-----	----

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

m

Describe the type of access road planned:

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 2

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

YES	NO
-----	----

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

m

Describe the type of access road planned:

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

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

Section A 6-8 has been duplicated

Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

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

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
 - A4 size for activities with development footprint of 10sqm to 5 hectares;
 - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
 - A2 size for activities with development footprint of >20 hectares to 50 hectares);
 - A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
 - A0 = 1: 500
 - A1 = 1: 1000
 - A2 = 1: 2000
 - A3 = 1: 4000
 - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

Refer to Appendix A for the Site Plans

7. SITE PHOTOGRAPHS

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

Refer to Appendix B for the Site Photographs

8. FACILITY ILLUSTRATION

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

Refer to Appendix C for the Facility Illustrations

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

Instructions for completion of Section B for linear activities

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

Section B has been duplicated for sections of the route times

Instructions for completion of Section B for location/route alternatives

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

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

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

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

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

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

Section B - Location/route Alternative No. (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:
(Including Physical Address and Farm name, portion etc.)

Portion 11 of The Farm Haakdoornlaagte 277 JR

2. ACTIVITY POSITION

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

Alternative: Proposal	Latitude (S):	Longitude (E):
	-25.596210°	28.275200°
	-25.596390°	28.275622°

Alternative: **Alternative 1**

Latitude (S):

Longitude (E):

-25.596210°	28.275200°
-25.596906°	28.274216°

In the case of linear activities:

Alternative:

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

Latitude (S):

Longitude (E):

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

Addendum of route alternatives attached

Not Applicable

The 21 digit Surveyor General code of each cadastral land parcel

Proposal & Alternative 1	T	O	J	R	0	0	0	0	0	0	0	0	0	0	2	7	7	0	0	0	1	1
--------------------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

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

4. LOCATION IN LANDSCAPE

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

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

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

- Shallow water table (less than 1.5m deep)
- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO

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

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

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

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

Latitude (S):	Longitude (E):

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

YES	NO
-----	----

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

Latitude (S):	Longitude (E):
°	°

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

YES	NO
-----	----

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

Latitude (S):	Longitude (E):
°	°

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?

YES	NO
-----	----

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

7. GROUNDCOVER

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

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

Natural veld - good condition % = 45	Natural veld with scattered aliens % = 45	Natural veld with heavy alien infestation % =	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % = 2	Building or other structure % = 3	Bare soil % = 5

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

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

YES	NO
-----	----

There are no red data listed (RDL) flora species on site, which includes rare and endangered species.

No orange data species (ODL) were observed on the actual study site.

There are no protected trees on the study site either.

If YES, specify and explain:

--

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.

YES	NO
-----	----

If YES, specify and explain:

There are two orange data listed (ODL) species in the area (within 600m) of the actual study site, namely *Hypoxis hemerocallidea* (African potato) and *Boophone distichia* (Gifbol). The species were however not observed on the actual study site.

There are a few Aloe plants on site and in the surrounding area, but these are not RDL or ODL species.

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

The study site is within the original extent of Marikana Thornveld, which is a threatened veld type (ecosystem) with a status of 'Vulnerable'. However, there are no specific sensitive habitats on site, such as streams, drainage lines, wetlands, koppies or groves of old trees (typically found on termitaria - old termite mounds).

If YES, specify and explain:

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

If yes complete specialist details

Name of the specialist:	Johannes Oren Maree (Flori Scientific Services)		
Qualification(s) of the specialist:	Pr.Sci.Nat Reg. no. 400077/91		
Postal address:	P.O. Box 7222, Modimolle		
Postal code:	0510		
Telephone:	-	Cell:	082 564 1211
E-mail:	johannes@flori.co.za	Fax:	-
Are any further specialist studies recommended by the specialist?			YES NO
If YES, specify:	<input style="width: 100%; height: 20px;" type="text"/>		
If YES, is such a report(s) attached?			YES NO
If YES list the specialist reports attached below	<input style="width: 100%; height: 20px;" type="text"/>		

Signature of specialist: **See attached report** Date: **February 2021**

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

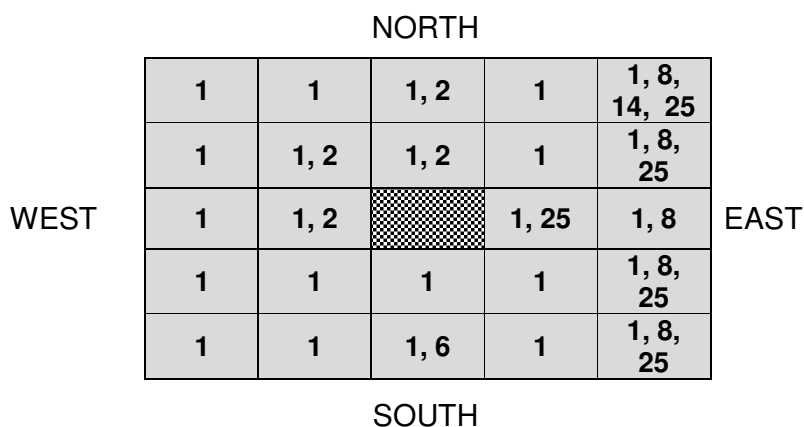
8. LAND USE CHARACTER OF SURROUNDING AREA

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

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	215. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities

21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more)^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X 250m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks



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

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

Have specialist reports been attached

YES	NO
-----	----

If yes indicate the type of reports below

--

9. SOCIO-ECONOMIC CONTEXT

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

The project site falls within Ward 49 in Region 2 of the City of Tshwane Metropolitan Municipality.

Region 2 is bordered by the Magaliesberg mountain range to the south and the PWV9 freeway to the west. The N1 runs through the middle of the region. Region 2 is 1 062 km² in extent, and 12 wards fall within this region. This region has the third-largest geographical area in Tshwane due to the inclusion of a large rural area.

An estimated population figure for this area is 376690 people in 2018 (IHS Global Insight) and approximately 33% of the economically active population of Region 2 is unemployed, which is higher than the national average of 25%.

The percentage of people older than 20 years in Region 2 with no schooling has declined from 5,3% in 2011 to 4,4%, while the percentage of people with at least matric have marginally decreased from 37,1% in 2011 to 36,7% in 2015. The percentage of people older than 20 years in Region 2 with a certificate or diploma without matric has declined from 0,7% in 2011 to 0,6% in 2015.

The northern areas of the region include Hammanskraal, Kudube, Stinkwater, Suurman and Babelegi and are located on the northern periphery of the City of Tshwane. Although urban in character, the area is not integrated into the larger urban environment of the metropolitan area.

The central and eastern parts of the region have a rural character and a low population density. They fall outside the urban edge, although they are bordered on three sides by urban development, and they are experiencing development pressure.

The southern part of Region 2 is a low-density formally developed suburban area, with developed nodes of economic activities.

(Source: Regionalized Municipal Spatial Development Framework Region 2, 2018)

10. CULTURAL/HISTORICAL FEATURES

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

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

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

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

YES	NO
-----	----

If YES, explain:

A Heritage Impact Assessment is currently being undertaken and will be included in the Final Basic Assessment Report.

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

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

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

YES	NO
-----	----

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

If yes, please attached the comments from SAHRA in the appropriate Appendix

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

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

2. LOCAL AUTHORITY PARTICIPATION

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

Was the draft report submitted to the local authority for comment?

YES

If yes, has any comments been received from the local authority?

YES

NO

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

--

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

Comments from the City of Tshwane are awaited.

3. CONSULTATION WITH OTHER STAKEHOLDERS

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

Has any comment been received from stakeholders?

YES

NO

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

Transnet Pipelines

Not Affected.

Sasol Gas

Not Affected.

Dark Fibre Africa

The proposed work affects the Dark Fibre Africa Optical Fibre Infrastructure and because of that, listed below are the terms and conditions to consider and adhere to:

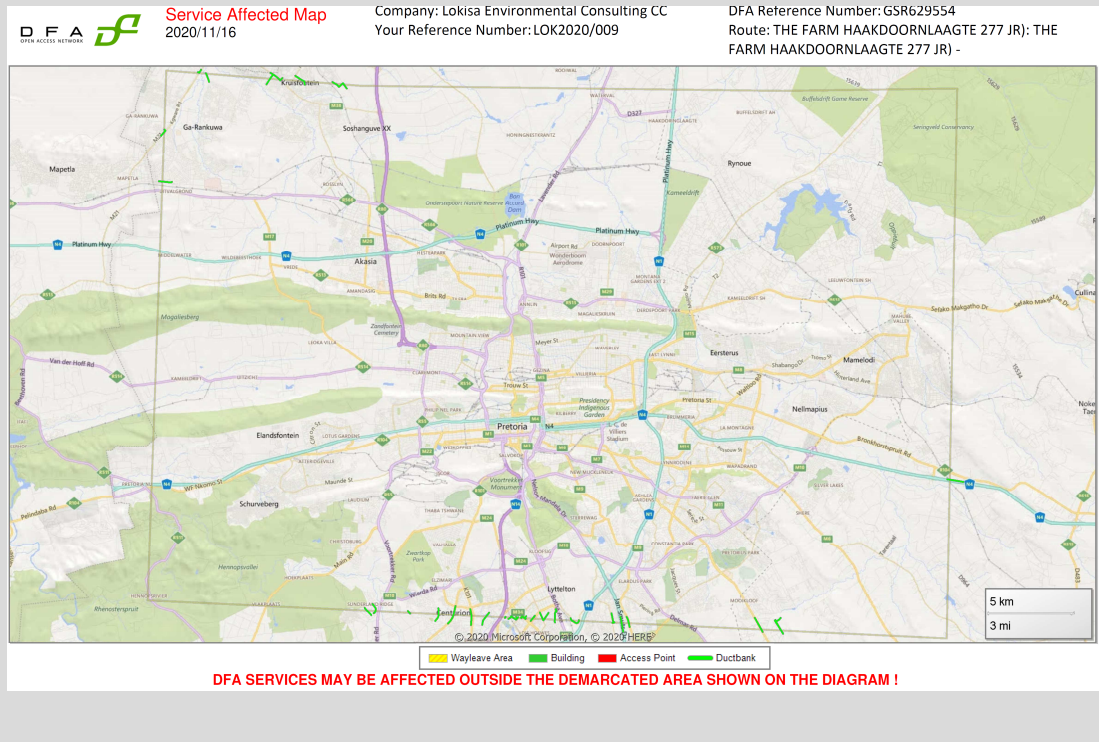
1. **The DFA Fibre Optical route is indicated on the attached drawing provided by our wayleave administrator. The "exact-position" of the route cannot be guaranteed.**
2. **DFA has approved the planned work from the documents received and reference above.**
3. **If the planned work exceeds the boundaries of the demarcated portion of the map / drawing provided; you will be required to submit a supplementary application to DFA in order to identify existing DFA infrastructure outside this area.**
4. **Should DFA suffer damage and/or loss as a result of your works, DFA shall hold**

- you liable for such damage and/or loss.
5. Please note that the DFA network is live and carries traffic for a number of subscribers. If you damage the network, the subscribers will have a claim against DFA for which you will also be held liable.
 6. The applicant or employed contractor must contact the relevant DFA Preventative Maintenance at least 5 working days prior to commencement of work to arrange a site/kick off meeting. Contact details are as follows: Name: Shadrack Mbonani, Cell Number: 0716241962, Email Address: shadrack.mbonani@dfafrica.co.za.
 7. Damaged Infrastructure must immediately be reported in writing to Judy Phalane, judy.phalane@dfafrica.co.za. For immediate assistance call +27 11 202 4700 for all damages caused to DFA infrastructure.
 8. Cable Protection Slabs, which are precast concrete slabs used for the protection of DFA's underground cables and other services, must be used when installing services near DFA.
 9. The standard cable protection slab is 900mm x 200mm x 75 thick. The slab will be reinforced with 3.55mm high tensile wires at 100mm center in both directions.
 10. Minimum depth of DFA cable cannot be guaranteed and may differ from descriptions on municipality wayleave conditions. The position can vary from a minimum of 300mm to 1200mm in depth in municipal road reserves. This depth may be less in the road carriage way. The DFA Preventative Maintenance department must be contacted 48 hours prior to excavation in these locations.
 11. In some locations, a warning plastic marker tape has been placed as an indication that DFA network is in the vicinity. Should this marker be removed for construction purposes, DFA preventative maintenance must be contacted in order to arrange new warning tape to be installed by your contractor in accordance with DFA specifications.
 12. Any excavations by means of self-propelled mechanical machinery, including equipment used for drilling/boring, demolishing and or compaction of soil be executed closer than 500mm from buried DFA optical cables, must be authorized by a DFA official during an on-site meeting before such excavation is to take place. Such excavations may not be executed directly above the DFA infrastructure at any time unless prior written approval is obtained.
 13. No blasting may be executed near the proximity of DFA optical fibre infrastructure without supervision of a DFA preventative Maintenance Officer.
 14. This approval letter is valid for 6 months from date of issue. The applicant must re-apply to DFA wayleave administration at services@dfafrica.co.za in Gauteng/ Pretoria, serviceskzn@dfafrica.co.za in Kwa Zulu Natal, serviceswr@dfafrica.co.za in Western Region, after the expiration thereof. If a contractor works under an expired DFA wayleave, DFA officials shall serve a stop work order to the contractor until the conditions are rectified.
 15. The applicant, or employed contractor responsible for the projector maintenance work as stated in the applicant's letter must at all times have on their person or on site: a. The Services Affected letter, b. Call Before you Dig Letter; and c. Drawing / Map supplied by DFA. Should the documentation not be available on request DFA officials may order the contractor to cease all works liaise with the local authorities / municipality for penalties until such approvals are made available and presented to the officer.
 16. This approval shall be withdrawn and of no effect should: The applicant does not comply with any of the conditions set out above paragraphs 1 to 15.
 17. If you require Dark Fibre Africa Services to be relocated to a new position to accommodate your project please be advised that Relocation of Dark Fibre Africa's established infrastructure may take up to a minimum of 12 weeks for completion (commencing after settlement of the relocation costs have been

received in full) unless prior arrangements and/or written agreements are conveyed and authorized by DFA officials for specialized projects and/or emergency relocations. Please note: Costs for re-positioning of DFA infrastructure may be for your firm's account. Please call 012 443 1000 to arrange a site meeting. DFA will not be held liable for any delays to your project caused by DFA relocation projects whatsoever.

18. DFA Important Contact Information: Network Operating Centre: 0800 628 662, Wayleave Administrator: Sharon Madia, Email: sharon.madia@dfrfrica.co.za.

Please refer to Appendix E, Appendix 4 for the Services Affected letter; the Call Before you Dig Letter; and the Drawing / Map supplied by DFA.



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

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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

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

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

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

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from interested and affected parties

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

Appendix 6 - Comments and Responses Report

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

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

Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

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

Section D Alternative No. (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

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

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

YES	NO
To be confirmed	

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

The building rubble and solid construction waste (such as sand, gravel, concrete and waste material) that cannot be used for filling, landscaping and rehabilitation and other litter and waste generated during the construction phase will be removed from site and be disposed of safely and responsibly at a licensed landfill site.

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

The material is to be removed to a licensed Landfill site.

Will the activity produce solid waste during its operational phase?

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

YES	NO
Operation waste will consist of domestic waste.	
Manure will amount to ± 9 400 kg per cycle.	
Mortalities will amount to ± 230 chickens per cycle.	

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

Operation waste is to be disposed of at a licensed landfill site.

Chicken manure will be taken from the broiler houses at the end of each cycle (6 weeks) and sold to farmers in the area to be used as fertilizer.

Mortalities will be removed to a mortality pit on the property.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES	NO
-----	----

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

<p>Operation waste is to be disposed of at a licensed landfill site.</p> <p>Chicken manure will be taken from the broiler houses at the end of each cycle (6 weeks) and sold to farmers in the area to be used as fertilizer.</p> <p>Mortalities will be removed to a mortality pit on the property.</p>

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

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

YES	NO
-----	----

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

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

YES	NO
-----	----

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

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

<p>Recycling at the source.</p> <p>Chicken manure will be taken from the broiler houses at the end of each cycle (6 weeks) and sold to farmers in the area to be used as fertilizer.</p>
--

Liquid effluent (other than domestic sewage)

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

YES	NO
-----	----

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

YES	NO
-----	----

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

YES	NO
-----	----

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

m ³

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

--

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

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

YES	NO
-----	----

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

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

--

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

YES	NO
-----	----

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

m ³	
YES	NO

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

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

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

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

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

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

YES	NO
-----	----

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

If no, describe the emissions in terms of type and concentration:

Emissions during the construction phase will mostly be in the form of dust.

Emissions during the operational phase will mostly consist of dust and feathers; ammonia and CO₂; and the typical house odour.

2. WATER USE

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

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

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

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

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

If yes, list the permits required

If yes, have you applied for the water use permit(s)?

YES	NO
-----	----

If yes, have you received approval(s)? (attached in appropriate appendix)

YES	NO
-----	----

3. POWER SUPPLY

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

Existing Eskom Supply.

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

Power supply is available.

4. ENERGY EFFICIENCY

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

Energy saving measures i.e. solar panels and rainwater harvesting will be considered for future use.

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

The chicken houses will be naturally ventilated. This will be achieved through covering the sidewall openings on both side walls along the length of the building with UV stabilised PVC curtains that can be raised or lowered, depending on whether the house needs to be cooler or warmer.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i)).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

D.C. Jordaan

Neighbouring property owners. Requested all documents for the proposed activities.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)
(A full response must be provided in the Comments and Response Report that must be attached to this report):

Transnet Pipelines

None required.

Sasol Gas

None required.

Dark Fibre Africa

Dark Fibre Africa's terms and conditions will be considered and adhered to.


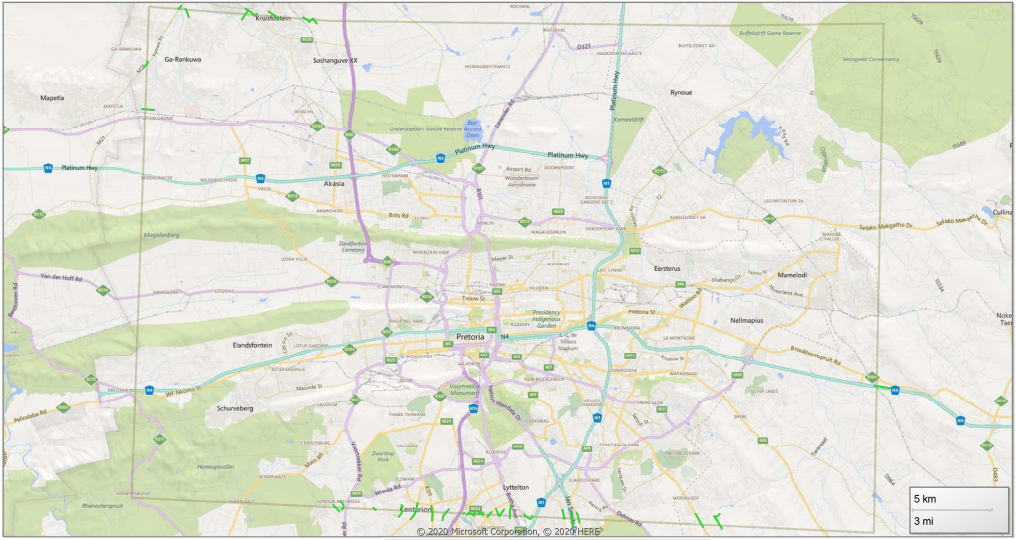
D.C. Jordaan

D.C. Jordaan has been registered as an I&AP and will be provided with the Draft BAR once finalised.

Table 2: Comments and Response Report

ISSUE	NAME	RESPONSE
Not Affected.	T. Hadebe Transnet Pipelines	None required.
Not Affected.	R Lekalakala Sasol Gas	None required.
<p>This serves as a notification to the application that was received by DFA dated, 2020/11/13. The proposed work affects the Dark Fibre Africa Optical Fibre Infrastructure and because of that, listed below are the terms and conditions to consider and adhere to:</p> <p>19. The DFA Fibre Optical route is indicated on the attached drawing provided by our wayleave administrator. The “exact-position” of the route cannot be guaranteed.</p> <p>20. DFA has approved the planned work from the documents received and reference above.</p> <p>21. If the planned work exceeds the boundaries of the demarcated portion of the map / drawing provided; you will be required to submit a supplementary application to DFA in order to identify existing DFA infrastructure outside this area.</p> <p>22. Should DFA suffer damage and/or loss as a result of your works, DFA shall hold you liable for such damage and/or loss.</p> <p>23. Please note that the DFA network is live and carries traffic for a number of subscribers. If you damage the network, the subscribers will have a claim against DFA for which you will also be held liable.</p> <p>24. The applicant or employed contractor must contact the relevant DFA Preventative Maintenance at least 5 working days prior to commencement of work to arrange a site/kick of meeting. Contact details are as follows: Name: Shadrack Mbonani, Cell Number: 0716241962, Email Address: shadrack.mbonani@dfafrica.co.za.</p> <p>25. Damaged Infrastructure must immediately be reported in writing to Judy Phalane, judy.phalane@dfafrica.co.za. For immediate assistance call +27 11 202 4700 for all damages caused to DFA infrastructure.</p> <p>26. Cable Protection Slabs, which are precast concrete slabs used for the protection of DFA’s underground cables and other services, must be used when installing services near DFA.</p> <p>27. The standard cable protection slab is 900mm x 200mm x 75 thick. The slab will be reinforced with 3.55mm high tensile wires at 100mm center in both directions.</p> <p>28. Minimum depth of DFA cable cannot be guaranteed and may differ from descriptions on municipality wayleave conditions. The position can vary from a minimum of 300mm to 1200mm in depth in municipal road reserves. This depth may be less in the road carriage way. The DFA Preventative Maintenance department must be contacted 48 hours prior to</p>	Dark Fibre Africa (DFA)	Dark Fibre Africa’s terms and conditions will be considered and adhered to.

ISSUE	NAME	RESPONSE
<p>excavation in these locations.</p> <p>29. In some locations, a warning plastic marker tape has been placed as an indication that DFA network is in the vicinity. Should this marker be removed for construction purposes, DFA preventative maintenance must be contacted in order to arrange new warning tape to be installed by your contractor in accordance with DFA specifications.</p> <p>30. Any excavations by means of self-propelled mechanical machinery, including equipment used for drilling/boring, demolishing and or compaction of soil be executed closer than 500mm from buried DFA optical cables, must be authorized by a DFA official during an on-site meeting before such excavation is to take place. Such excavations may not be executed directly above the DFA infrastructure at any time unless prior written approval is obtained.</p> <p>31. No blasting may be executed near the proximity of DFA optical fibre infrastructure without supervision of a DFA preventative Maintenance Officer.</p> <p>32. This approval letter is valid for 6 months from date of issue. The applicant must re-apply to DFA wayleave administration at services@dfafrica.co.za in Gauteng/ Pretoria, serviceskzn@dfafrica.co.za in Kwa Zulu Natal, serviceswr@dfafrica.co.za in Western Region, after the expiration thereof. If a contractor works under an expired DFA wayleave, DFA officials shall serve a stop work order to the contractor until the conditions are rectified.</p> <p>33. The applicant, or employed contractor responsible for the projector maintenance work as stated in the applicant's letter must at all times have on their person or on site: a. The Services Affected letter, b. Call Before you Dig Letter; and c. Drawing / Map supplied by DFA. Should the documentation not be available on request DFA officials may order the contractor to cease all works liaise with the local authorities / municipality for penalties until such approvals are made available and presented to the officer.</p> <p>34. This approval shall be withdrawn and of no effect should: The applicant does not comply with any of the conditions set out above paragraphs 1 to 15.</p> <p>35. If you require Dark Fibre Africa Services to be relocated to a new position to accommodate your project please be advised that Relocation of Dark Fibre Africa's established infrastructure may take up to a minimum of 12 weeks for completion (commencing after settlement of the relocation costs have been received in full) unless prior arrangements and/or written agreements are conveyed and authorized by DFA officials for specialized projects and/or emergency relocations. Please note: Costs for re-positioning of DFA infrastructure may be for your firm's account. Please call 012 443 1000 to arrange a site meeting. DFA will not be held liable for any delays to your project caused by DFA relocation projects whatsoever.</p> <p>36. DFA Important Contact Information: Network Operating Centre: 0800 628 662, Wayleave Administrator: Sharon Madia, Email: sharon.madia@dfafrica.co.za.</p>		

ISSUE	NAME	RESPONSE
<p>Please refer to Appendix E, Appendix 4 for the Services Affected letter; the Call Before you Dig Letter; and the Drawing / Map supplied by DFA.</p> <p>  Service Affected Map 2020/11/16 </p> <p> Company: Lokisa Environmental Consulting CC Your Reference Number: LOK2020/009 </p> <p> DFA Reference Number: GSR629554 Route: THE FARM HAAKDOORNLAAGTE 277 JR); THE FARM HAAKDOORNLAAGTE 277 JR) - </p>  <p style="color: red; text-align: center;">DFA SERVICES MAY BE AFFECTED OUTSIDE THE DEMARCATED AREA SHOWN ON THE DIAGRAM !</p>		
<p>Neighbouring property owners. Requested all documents for the proposed activities.</p>	<p>D.C. Jordaan</p>	<p>D.C. Jordaan has been registered as an I&AP and will be provided with the Draft BAR once finalised.</p>

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

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

Criteria used to determine the Consequence of an Impact						
Table 3: Methodology						
Rating	Definition of Rating				Score	
A. Extent – the area in which the impact will be expected						
None					0	
Local	Confined to project or study area or part thereof (eg. site)				1	
Regional	The region, which may be defined in various ways, eg. Cadastral, catchment, topographic				2	
(Inter) national	Nationally or beyond				3	
B. Intensity – the magnitude or size of the impact						
None					0	
Low	Natural and/or social functions and processes are negligibly altered				1	
Medium	Natural and/or social functions and processes continue albeit in a modified way				2	
High	Natural and/or social functions or processes are severely altered				3	
C. Duration – the time frame for which the impact will be experienced						
None					0	
Short term	Up to 2 years				1	
Medium term	2 – 15 years				2	
Long Term	More than 15 years				3	
The combined score of these three criteria corresponds to a Consequence Rating, as set out in Table below:						
Table 4: Methods used to determine the Consequence Score						
Combined score (A+B+C)	0 - 2	3 - 4	5	6	7	8-9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high
Once the consequence is derived, the probability of the impact occurring is considered, using the probability classifications indicated in table below:						
Table 5: Probability Classification						
Probability of impact – the likelihood of the impact occurring						
Improbable			< 40% chance of occurring			
Possible			40% - 70% chance of occurring			
Probable			> 70% - 90% chance of occurring			

Definite	> 90% chance of occurring
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The overall significance of impacts is determined by considering consequence and probability using the rating system indicated in table below:

Table 6: Impact Significance Rating

Significance Rating	Consequence		Probability
Insignificant	Very low	&	Improbable
	Very low	&	Possible
Very Low	Very low	&	Probable
	Very low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very high	&	Improbable
	Very high	&	Possible
Very High	Very high	&	Probable
	Very high	&	Definite

In conclusion the impacts are also considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The prescribed system for considering impacts status and confidence (in assessment) is indicated in table below.

Table 7: Impact status and confidence classification

Status of Impact	
Indication of where the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a 'benefit')
	- ve (negative – a 'cost')
	Neutral
Confidence of assessment	
The degree of confidence in predictions based on available information, EAP's judgement and/or specialist knowledge	Low
	Medium
	High

The impact significance rating should be considered by GDARD in their decision-making process based on the implications of ratings ascribed below:

- **Insignificant:** the potential impact is negligible and will not have an influence on the decision regarding the proposed activity / development;
- **Very low:** the potential impact should not have any meaningful influence on the decision regarding the proposed activity / development;
- **Low:** the potential impact may not have any meaningful influence on the decision regarding the proposed activity / development;
- **Medium:** the potential impact should influence the decision regarding the proposed activity / development;
- **High:** the potential impact will affect the decision regarding the proposed activity / development;

- **Very high: The proposed activity should only be approved under special circumstances.**

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

Potential Impacts for the construction and operational phase

Proposal

Table 8: Potential impacts for the Proposal during the Construction and Operational phase

Potential Impact	Extent A	Intensity B	Duration C	Consequence A+B+C	Probability	Impact Significance	Status	Confidence
CONSTRUCTION PHASE								
1. ISSUE: SITE PREPARATION								
1.1 Development footprint, construction camp and related activities	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Definite	Very Low & Definite = Very Low	-ve	High
2. ISSUE: AIR QUALITY								
2.1 Dust/Air pollution – The generation of fugitive dust associated with construction activities & earthworks	Region (2)	High (3)	Short term (1)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
3. ISSUE: VISUAL IMPACTS								
3.1 Site Clearance	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Probable	Very Low & Probable = Very Low	-ve	Medium
3.2 Bulk earthworks: Deep cuttings, high embankments, disposal of spoil and excavations cause local changes to topography	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Definite	Very Low & Definite = Very Low	-ve	High
4. ISSUE: GEOLOGY AND SOILS								
4.1 Disturbance of surface geology for development foundations	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Definite	Very Low & Definite = Very Low	-ve	High
4.2 Soil erosion, loss of topsoil, deterioration of soil quality	Region (2)	High (3)	Short term (1)	Medium (6)	Probable	Medium & Probable = Medium	-ve	High
4.3 Soil and ground water pollution	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Probable	Very Low & Probable = Very Low	-ve	High
5. ISSUE: FAUNA AND FLORA								
5.1 Degradation, destruction of habitats/eco-	Region (2)	Medium (2)	Short term (1)	Low (5)	Probable	Low & Probable = Low	-ve	High

Potential Impact	Extent A	Intensity B	Duration C	Consequence A+B+C	Probability	Impact Significance	Status	Confidence
systems								
5.2 Impacts on fauna and flora	Region (2)	High (3)	Short term (1)	Medium (6)	Probable	Medium & Probable = Medium	-ve	Medium
5.3 Loss of natural vegetation	Region (2)	High (3)	Short term (1)	Medium (6)	Probable	Medium & Probable = Medium	-ve	Medium
5.4 Invasive Species	Region (2)	Medium (2)	Short term (1)	Low (5)	Definite	Low & Definite = Low	-ve	high
6. ISSUE: HYDROLOGY								
6.1 Storm water flow and drainage – Developments cause the modification of drainage patterns.	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Probable	Very Low & Probable = Very Low	-ve	Medium
6.2 Impact on water quality and surface pollution	Regional (2)	Low (1)	Medium term (2)	Low (5)	Probable	Low & Probable = Low	-ve	high
7. SOCIO-ECONOMIC AND CULTURAL HISTORICAL ENVIRONMENT								
7.1 Noise and vibration	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Definite	Very Low & Definite = Very Low	-ve	Medium
7.2 Employment opportunities	Region (2)	High (3)	Short term (1)	Medium (6)	Definite	Medium & Definite = Medium	+ve	Medium
7.3 Impact on the privacy and safety of adjacent land owners.	Regional (2)	High (3)	Short term (1)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
7.4 Destruction of cultural/heritage sites	None (0)	None (0)	None (0)	Not Significant (0)	Improbable	Not significant & Improbable = Not significant	-ve	Medium
8. ISSUE: SOCIAL WELL-BEING AND QUALITY OF THE ENVIRONMENT								
8.1 Safety and Security	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Probable	Very Low & Probable = Very Low	-ve	Medium
8.2 Hygiene	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Probable	Very Low & Probable = Very Low	-ve	High
9. ISSUE: INFRASTRUCTURE AND SERVICES/WASTE								
9.1 Pressure on existing infrastructure and services	Local (1)	Low (1)	Short term (1)	Very Low (3)	Definite	Very Low & Definite = Very Low	-ve	High
9.2 Waste	Local (1)	High (3)	Short term (1)	Low (5)	Definite	Low & Definite = Low	-ve	Medium
9.3 Concrete and cement preparation and handling	Local (1)	High (3)	Short term (1)	Low (5)	Definite	Low & Definite = Low	-ve	Medium
10. ISSUE: CLOSURE AND REHABILITATION								
10.1 Closure and rehabilitation	Local (1)	Medium (2)	Short term (1)	Very Low (4)	Probable	Very Low & Probable = Very Low	-ve	Medium
OPERATIONAL PHASE								
1. ISSUE: VISUAL IMPACT								
1.1 Visual impact	Local (1)	Low (1)	Long term (3)	Low (5)	Probable	Low & Probable = Low	-ve	High
2. ISSUE: FAUNA AND FLORA								

Potential Impact	Extent A	Intensity B	Duration C	Consequence A+B+C	Probability	Impact Significance	Status	Confidence
2.1 Alien invasion	Local (1)	Medium (2)	Long term (3)	Medium (6)	Probable	Medium & Probable = Medium	-ve	High
3. ISSUE: HYDROLOGY								
3.1 Storm water flow and drainage – Developments cause the modification of drainage patterns.	Local (1)	Medium (2)	Long term (3)	Medium (6)	Probable	Medium & Probable = Medium	-ve	Medium
3.2 Impact on water quality	Regional (2)	Low (1)	Long term (3)	Low (5)	Probable	Low & Probable = Low	-ve	high
4. SOCIO-ECONOMIC								
4.1 Employment opportunities	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	+ve	Medium
4.2 Noise pollution	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
4.3 Foul odours	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
4.4 Flies	Local (1)	High (3)	Long term (3)	High (7)	Definite	High & Definite = High	-ve	High
4.5 Health risk to employees	Local (1)	Medium (2)	Long term (3)	Medium (6)	Probable	Medium & Probable = Medium	-ve	High
4.6 Animal Health Control and Welfare	Local (1)	High (3)	Long term (3)	High (7)	Definite	High & Definite = High	+ve	High
5. ISSUE: SOCIAL WELL-BEING AND QUALITY OF THE ENVIRONMENT								
5.1 Safety and Security (Including fire risk)	Local (1)	Medium (2)	Long term (3)	Medium (6)	Probable	Medium & Probable = Medium	-ve	High
6. ISSUE: INFRASTRUCTURE AND SERVICES/WASTE								
6.1 Pressure on existing infrastructure and services	Local (1)	Low (1)	Long term (3)	Low (5)	Probable	Low & Probable = Low	-ve	Medium
6.2 General waste management	Local (1)	Low (1)	Long term (3)	Low (5)	Probable	Low & Probable = Low	-ve	High
6.3 Manure Removal	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
6.4 Mortalities	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
7. ISSUE: OPERATIONAL ACTIVITY								
7.1 Layout /position on property for the Proposal	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High

Potential Impacts for the construction and operational phase

Alternative 1

The potential impacts for the construction phase and operational phase for Alternative 1 is similar to that of the proposal with the exception being the impacts anticipated as a result of the alternative position of the proposed broiler houses.

Table 9: Potential Impacts for the construction and operational phase - Alternative 1

Potential Impact	Extent A	Intensity B	Duration C	Consequence A+B+C	Probability	Impact Significance	Status	Confidence
OPERATIONAL PHASE								
7. ISSUE: OPERATIONAL ACTIVITY								
7.1 Layout /position on property for Alternative 1 (Phase 3)	Local (1)	High (3)	Long term (3)	High (7)	Definite	High & Definite = High	-ve	High

Potential Impacts for the No-Go Alternative

No-Go Alternative

Table 10: Potential Impacts for the No-Go Alternative

Potential Impact	Extent A	Intensity B	Duration C	Consequence A+B+C	Probability	Impact Significance	Status	Confidence
CONSTRUCTION PHASE								
1. ISSUE: IMPACT ON THE ENVIRONMENT								
1.1 Impact on the environment	None (0)	None (0)	None (0)	Not Significant (0)	Improbable	Not significant & Improbable = Not significant	+ve	High
OPERATIONAL PHASE								
1. SOCIO-ECONOMIC								
1.1 No Job creation	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
1.2 Loss of investment	Local (1)	Medium (2)	Long term (3)	Medium (6)	Definite	Medium & Definite = Medium	-ve	High
1.3 Food Insecurity	Region (2)	Medium (2)	Long term (3)	High (7)	Definite	High & Definite = High	-ve	High

Significance Rating for the construction and operational phase

Proposal

Table 11: Significance Rating for the construction and operational phase – Proposal

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
CONSTRUCTION PHASE				
1. ISSUE: SITE PREPARATION				
1.1 Development footprint, construction camp and related activities	Very Low	<ul style="list-style-type: none"> • Before commencing with any work, all staff members shall be appropriately briefed about the EMPr and relevant occupational health and safety issues. • During construction phase any temporary storage, lay-down areas or accommodation facilities to be setup in existing built-up areas or disturbed areas, or low sensitive areas only. • Ensure small footprint during construction phase. • All excess materials brought onto site for construction to be removed after construction. • Any areas denuded during construction outside of the project site or structures (chicken houses) to be cleared, roughly levelled and re-grassed. These areas must be routinely inspected and any invasive alien weeds removed until the natural veld grasses have established well. • Only existing access roads may be used to and from construction site (study area). • Appropriate sanitary facilities must be provided for the life of the construction phase and all waste removed to an appropriate waste facility. • All hazardous chemicals as well as stockpiles should be stored on bunded surfaces and have facilities constructed to control runoff from these areas. • It must be ensured that all hazardous storage containers and storage areas comply with the relevant SABS standards to prevent leakage. • No fires should be permitted in or near the construction area. • Construction related traffic to and from site to be minimised. • Access to construction site to be controlled. • Vehicles should be restricted to travelling only on designated roadways to limit the ecological footprint of the proposed development activities. • The Contractor shall make available safe drinking water fit for human consumption at the construction camp and all other working areas. 	Very Low	Negative impact on the environment.
2. ISSUE: AIR QUALITY				
2.1 Dust/Air pollution - The generation of fugitive dust associated with construction activities & earthworks.	Medium	<ul style="list-style-type: none"> • Dust generation should be kept to a minimum. • Dust must be suppressed on construction areas during dry periods by the regular application of water or a biodegradable soil stabilisation agent. • It is recommended that the clearing of vegetation from the site should be selective 	Low	Negative impact on the ambient air quality of the area

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
		<p>and done just before construction so as to minimise erosion and dust.</p> <ul style="list-style-type: none"> Excavating, handling or transporting erodible materials in high wind or when dust plumes are visible shall be avoided. All materials transported to site must be transported in such a manner that they do not fly or fall off the vehicle. This may necessitate covering or wetting friable materials. No burning of refuse or vegetation is permitted. 		
3. ISSUE: VISUAL IMPACTS				
3.1 Site clearance	Very Low	<ul style="list-style-type: none"> Site development to be limited to footprint area. All temporary lay down areas, equipment and site offices must be within the boundaries of the study site. Ensure as small a footprint as possible during the construction phase. Care must be taken with any heavy machinery used on the project. All access roads and farm roads used must be monitored and maintained. Excavated soils and rocks can be used on the smallholding and on gravel roads. There is no need to transport off the site to any landfill site. However, excavated rocks and soils, etc may not simply be left in large piles or mounds. They must be levelled, cleaned-up, etc. These areas must be routinely inspected and any emergence of alien weeds species must be eradicated. 	Very Low	Negative impact on the visual quality of the area.
3.2 Bulk earthworks: Deep cuttings, high embankments, disposal of spoil and excavations cause local changes to topography	Very Low	<ul style="list-style-type: none"> Provide the necessary erosion control measures. Ensure that all erosion control measures are in good repair and working condition. Avoid cutting steep embankments. No waste may be placed in excavations on site. Excess soil and bedrock should be disposed off at an appropriate waste disposal facility. 	Very Low	Negative impact on the visual quality of the area.
4. ISSUE: GEOLOGY AND SOILS				
4.1 Disturbance of surface geology for development foundations	Very Low	<ul style="list-style-type: none"> Strip topsoil prior to any construction activities. Reuse topsoil to rehabilitate disturbed areas. Topsoil must be kept separate from overburden and must not be used for building purposes or maintenance or access roads. Appropriate erosion and storm water management structures must be installed around the construction site. 	Very Low	Negative impact on the geology of the area.
4.2 Soil erosion, loss of topsoil, deterioration of soil quality	Medium	<ul style="list-style-type: none"> The extent of exposed soils at any one time should be limited. The construction footprint should be minimized to avoid unnecessarily exposing soils to erosion. Cover disturbed soils as completely as possible, using vegetation or other materials. Repair all erosion damage as soon as possible to allow sufficient rehabilitation growth. Gravel roads must be well drained in order to limit soil erosion. Once earthworks are complete, disturbed area are to be stabilised with an appropriate approved method. Disturbed surfaces to be rehabilitated and no open trenches to be left. All excavations and foundations must be 	Low	Degradation or impairment of soil quality

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
		inspected regularly.		
4.3 Soil and ground water pollution	Very Low	<ul style="list-style-type: none"> All construction vehicles, plant, machinery and equipment must be properly maintained to prevent leaks. Vehicles to be used during the construction phase are to be kept in good working condition and should not be the source of excessive fumes. Ensure correct position of construction caps, equipment yards, refueling depots, concrete batching plant etc. to avoid areas susceptible to soil and water pollution. Plant and vehicles are to be repaired immediately upon developing leaks. Drip trays shall be supplied for all repair work undertaken on machinery on site or campsite area. Ensure appropriate handling of hazardous substances Drip trays are to be utilised during daily greasing and re-fueling of machinery and to catch incidental spills and pollutants. Drip trays are to be inspected daily for leaks and effectiveness, and emptied when necessary. This is to be closely monitored during rain events to prevent overflow. Fuels and chemicals must be stored in adequate storage facilities that are secure, enclosed and banded. Remediate polluted soil. 	Very Low	Spilled oil prevents water absorption by soil
5. ISSUE: FAUNA AND FLORA				
5.1 Degradation, destruction of habitats/eco-systems	Low	<ul style="list-style-type: none"> Minimise construction footprints prior to commencement of construction and control all edge effects of construction activities (proliferation of alien vegetation, disturbance of soils, dumping of construction waste). Ensure that erosion management and sediment controls are strictly implemented from the beginning of site clearing activities. Clearly demarcate areas to be cleared and ensure that vegetation clearing only occurs within the demarcated areas. Stockpiles should not be situated such that they obstruct natural water pathways and drainage channels. Stockpiles should be kept clear of weeds and alien vegetation by regular weeding. 	Low	Loss of floral and faunal habitat
5.2 Impacts on fauna and flora	Medium	<ul style="list-style-type: none"> Care must be taken not to interact directly with any wild life encountered. Any bird nests encountered in the grass or on the water must not be interfered with. If encountered must first be discussed with specialist. Awareness of snakes in the area is important. Chickens can attract wild animals such as snakes as well as other animals such as mongoose. Any dangerous animals such as snakes must be reported to management / ECO and professionals contacted to deal with the situation. The illegal hunting or capture of wildlife will not be tolerated. Such matters will be handed over to the relevant authorities for prosecution. Disturbance to birds, animals and reptiles and their habitats should be prevented at all times. 	Low	Loss of biodiversity

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
		<ul style="list-style-type: none"> All Declared Weeds and invaders must be removed. Rehabilitation with indigenous species, should it be required. Stockpiles should not be situated such that they obstruct natural water pathways and drainage channels. Stockpiles should be kept clear of weeds and alien vegetation by regular weeding. 		
5.3 Loss of natural vegetation	Medium	<ul style="list-style-type: none"> There are no protected trees in the study area. Notwithstanding, removal of indigenous trees should be kept to a minimum as far as possible. Limit removal of natural vegetation (grassland) to a minimum and maintain a small project footprint. Should any priority species be encountered during construction phase (which is unlikely) then construction must first halt to be able to lift and rescue species. Vegetation removed during excavation activities may be used as compost on the smallholding. This is preferable to burning of material, or removing to a landfill site Basic rehabilitation of disturbed and denuded areas to be done. Clearance of indigenous vegetation must be kept to a minimum. As an offset / positive impact on the site it is recommended to plant a number of locally indigenous trees around the outer boundary of the project site, without blocking any access roads, etc. The recommended trees are: Thorn trees (<i>Acacia</i> / <i>Vachellia</i>) and a few Karee (<i>Rhus</i> / <i>Searsia</i>). Only a few trees in the order of 20 – 50 need to be planted. 	Medium	Decline in biological diversity
5.4 Invasive Species	Low	<ul style="list-style-type: none"> The removal of vegetation should be limited to the proposed development footprint. Stockpiles should be kept clear of weeds and alien vegetation by regular weeding. Localised removal of alien species on a regular basis. Proper rehabilitation and re-seeding of the disturbed areas. 	Low	Decline in biological diversity
6. ISSUE: HYDROLOGY				
6.1 Storm water flow and drainage-Developments cause the modification of drainage patterns. Storm water may be concentrated at certain points, increasing the velocity of flow in one area and reducing flow in another. This may contribute to flooding, soil erosion, and sedimentation.	Very Low	<ul style="list-style-type: none"> Storm water measures to be implemented prior to construction taking place on site: All measures should be implemented during the construction of earthworks to ensure that disturbed soil is not transported into any water course or system where storm water is to flow. Building rubble and other products that can cause contamination must be managed according to best practice and monitored. 	Very Low	Soil erosion, flooding and sedimentation of water bodies and loss of habitat.
6.2 Impact on water quality and surface pollution	Low	<ul style="list-style-type: none"> All construction machinery and vehicles should be inspected for oil and fuel leaks regularly and frequently. No maintenance of construction vehicles or machinery should be allowed within the development site except in emergency situations in which case mobile drip trays will 	Low	Water pollution

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
		<p>be used to capture any spills. Drip trays should be emptied into a holding tank and returned to the supplier.</p> <ul style="list-style-type: none"> All toxic products or possible pollutants such as hydrocarbons must be stored offsite or in sealed areas on site to prevent surface water pollution. Litter should be disposed of in appropriate waste disposal bins. All contaminated materials must be disposed off at permitted waste disposal facilities. 		
7. SOCIO-ECONOMIC AND CULTURAL HISTORICAL ENVIRONMENT				
7.1 Noise and vibration	Very Low	<ul style="list-style-type: none"> Noise levels shall be kept within acceptable limits, and construction crew must abide by National Noise Laws and local by-laws regarding noise. Construction / management activities involving use of the service vehicle, machinery, hammering etc, must be limited to the hours between 7:00am and 5:30pm weekdays; 7:00am and 1:30pm on Saturdays; no noisy activities may take place on Sundays or Public Holidays. Equipment that is fitted with noise reduction facilities (e.g. side flaps, silencers etc.) must be used as per operating instructions and maintained properly during site operations. 	Very Low	An increase in the ambient noise levels of the area.
7.2 Employment opportunities	Medium (Positive)	<ul style="list-style-type: none"> Make use of local labour Provide clear and realistic information regarding employment opportunities and other benefits for local communities in order to prevent unrealistic expectations. Provide skills training for construction workers 	Medium (Positive)	A large influx of uncontrolled numbers of people coming to the site seeking employment opportunities. This might also pose a security risk.
7.3 Impact on the privacy and safety of adjacent land owners.	Medium	<ul style="list-style-type: none"> The construction camp must be located as far from residential properties as possible. No access to neighbouring holdings should be allowed. Construction crew to respect adjacent landowners. 	Low	Nuisance to adjacent land owners
7.4 Destruction of cultural/heritage sites	Insignificant	<ul style="list-style-type: none"> Implementation of a chance find procedure as outlined below. The possibility of the occurrence of subsurface finds cannot be excluded. Therefore, if during construction any possible finds such as stone tool scatters, artefacts or bone and fossil remains are made, the operations must be stopped and a qualified archaeologist must be contacted for an assessment of the find This procedure applies to the developer's permanent employees, its subsidiaries, contractors and subcontractors, and service providers. The aim of this procedure is to establish monitoring and reporting procedures to ensure compliance with this policy and its associated procedures. Construction crews must be properly inducted to ensure they are fully aware of the procedures regarding chance finds as discussed below. <ul style="list-style-type: none"> If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and 	Insignificant	<p>Impairment of heritage resources</p> <p>Depletion of archaeological record of the area.</p>

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
		<p>subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager.</p> <ul style="list-style-type: none"> ➤ It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find and confirm the extent of the work stoppage in that area. ➤ The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify the SAHRA. 		
8. ISSUE: SOCIAL WELL-BEING AND QUALITY OF THE ENVIRONMENT				
8.1 Safety and Security	Very Low	<ul style="list-style-type: none"> • Signs should be erected on all entrance gates to the site camp indicating that no temporary jobs are available, thereby limiting opportunistic labourers and crime. • The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations • All structures that are vulnerable to high winds must be secured (including toilets). • Potentially hazardous areas such as trenches are to be cordoned off and clearly marked at all times. • The Contractor is to ensure traffic safety at all times, and shall implement road safety precautions for this purpose when works are undertaken on or near public roads. • Necessary Personal Protective Equipment (PPE) and safety gear appropriate to the task being undertaken is to be provided to all site personnel (e.g. hard hats, safety boots, masks etc.). • All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA). • Access to fuel and other equipment stores is to be strictly controlled. • Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimised. This will also ensure that potential liabilities and damage to life and the environment are avoided. • Adequate emergency facilities must be provided for the treatment of any emergency on the site. • The nearest emergency service provider must be identified during all phases of the project as well as its capacity and the magnitude of accidents it will be able to handle. Emergency contact numbers are to be displayed conspicuously at prominent locations around the construction site and the construction crew camps at all times. • The Contractor must have a basic spill control kit available. The spill control kits must include absorptive material that can handle all forms 	Very Low	Potential criminal activities such as theft might occur.

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
		of hydrocarbon as well as floating blankets / pillows that can be placed on water courses. <ul style="list-style-type: none"> HIV/AIDS awareness and education should be undertaken by all Contractor staff. 		
8.2 Hygiene	Very Low	<ul style="list-style-type: none"> The Contractor shall make available safe drinking water fit for human consumption at the site offices and all other working areas. Washing and toilet facilities shall be provided on site and in the Contractors camp. Adequate numbers of chemical toilets must be maintained in the Contractors camp to service the staff using this area. At least 1 toilet must be available per 20 workers using the camp. Toilet paper must be provided. The chemical toilets servicing the camp must be maintained in a good state, and any spills or overflows must be attended to immediately. The chemical toilets must be emptied on a regular basis. 	Very Low	Unhealthy working conditions on project site.
9. ISSUE: INFRASTRUCTURE AND SERVICES/WASTE				
9.1 Pressure on existing infrastructure and services	Very Low	<ul style="list-style-type: none"> Integrity of existing services to be ensured. Dark Fibre Africa's terms and conditions will be considered and adhered to. 	Very Low	Damage to infrastructure resulting in liability costs
9.2 Waste	Low	<ul style="list-style-type: none"> Adequate number of waste disposal receptacles is to be positioned at strategic locations within the development. No burning of waste. Waste will be collected and removed off-site to a registered waste site. Excess soil and bedrock should be disposed of at an appropriate facility. 	Very Low	Waste that is not disposed of correctly mainly leads to the following: <ul style="list-style-type: none"> Environmental degradation Water pollution Infestation by rodents and potential disease causing vectors
9.3 Concrete and cement preparation and handling	Low	<ul style="list-style-type: none"> No mixed concrete may be deposited outside of the designated construction footprint; A batter / dagga board mixing trays and impermeable sumps should be provided, onto which any mixed concrete can be deposited whilst it awaits placing. Concrete spilled outside of the demarcated area must be promptly removed and taken to a suitably licensed waste disposal site. Waste disposal certificates must be obtained for any waste that is disposed of. 	Very Low	Potential soil contamination
10. ISSUE: CLOSURE AND REHABILITATION				
10.1 Closure and rehabilitation	Very Low	<ul style="list-style-type: none"> Construction rubble must be collected and disposed of at a suitable landfill site. 	Very Low	Failure to rehabilitate can result in potential negative impacts to the project area
OPERATIONAL PHASE				
1. ISSUE: VISUAL IMPACT				
1.1 Visual impact	Low	<ul style="list-style-type: none"> Site to be kept neat and weed free. 	Low	Negative impact on the visual quality of the area.

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
2. ISSUE: FAUNA AND FLORA				
2.1 Alien invasion	Medium	<ul style="list-style-type: none"> It is critical that an alien vegetation control programme is implemented. Detect alien invasive species early, before they become established and, in the case of weeds, before the release of seeds. 	Low	Alien infestation
3. ISSUE: HYDROLOGY				
3.1 Storm water flow and drainage – Developments cause the modification of drainage patterns. Storm water may be concentrated at certain points, increasing the velocity of flow in one area and reducing flow in another. This may contribute to flooding, soil erosion, and sedimentation	Medium	<ul style="list-style-type: none"> Storm water measures to be implemented. The proposed development's storm water to be adequately managed. 	Low	Soil erosion, flooding and sedimentation of water bodies and loss of habitat.
3.2 Impact on water quality	Low	<ul style="list-style-type: none"> All waste, litter and rubble should be removed after the completion of construction activities. All chemical spills should be cleaned immediately. 	Low	Surface water pollution
4. SOCIO-ECONOMIC				
4.1 Employment opportunities	Medium (Positive)	<ul style="list-style-type: none"> Implement local labour. Provide clear and realistic information regarding employment opportunities and other benefits for local communities in order to prevent unrealistic expectations. 	Medium (Positive)	A large influx of uncontrolled numbers of people coming to the site seeking employment opportunities. This might also pose a security risk.
4.2 Noise pollution	Medium	<ul style="list-style-type: none"> Ensure acceptable noise levels 	Low	An increase in the ambient noise levels of the area
4.3 Foul odours	Medium	<ul style="list-style-type: none"> Chicken manure will be taken from the broiler houses at the end of each cycle (6 weeks) and sold to farmers in the area to be used as fertilizer. Manure will be preserved in a dry, enclosed area, covered by sheeting. 	Low	Increased risk of foul odours in the area
4.4 Flies	High	<ul style="list-style-type: none"> Set up an effective manure management strategy. Wet and dirty bedding material is a perfect fly breeding habitat, so remove at least twice a week to break the seven day breeding cycle. Pay attention to areas where dirty material may collect, such as corners and edges of broiler houses and under feeders. Constantly check the levels of manure, periodically draining or cleaning it. Cover carcass disposal to prevent fly access. Ensure good ventilation. Clean up spilled feed regularly. Keep vegetation surrounding broiler houses under control. Reduce the movement of equipment between buildings to reduce the risk of re-infestations. 	Low	Increase in flies present at the project site
4.5 Health risk to employees	Medium	<ul style="list-style-type: none"> Equip all employees and/or contractors working on the site with the necessary personal protective equipment. 	Low	Unhealthy working conditions on

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
		<ul style="list-style-type: none"> Implement safety induction. Ensure that all employees adhere to the Occupational Health and Safety Act. A First Aid kit should be provided within the site. This should be fully equipped at all times, site workers should also be trained on basic first aid skills. 		project site
4.6 Animal Health Control and Welfare	High	<ul style="list-style-type: none"> The broiler houses will be cleaned at the end of every production cycle. Floor systems provide a greater opportunity for chickens to express natural behaviours like dustbathing, ground pecking and scratching. 	Medium	Poor animal health and welfare
5. ISSUE: SOCIAL WELL BEING AND QUALITY OF THE ENVIRONMENT				
5.1 Safety and Security (including fire risks)	Medium	<ul style="list-style-type: none"> Adequate fire-fighting equipment must be available to extinguish any fires. Emergency contact details for the police, Security Company and fire department must be readily available. Staff must be adequately trained with respect to dealing with potential criminal activities that may take place on site. 	Low	Potential criminal activities such as theft might occur
6. ISSUE: INFRASTRUCTURE AND SERVICES/WASTE				
6.1 Pressure on existing infrastructure and services	Low	<ul style="list-style-type: none"> Integrity of existing services to be ensured. 	Low	Damage to infrastructure resulting in liability costs
6.2 General waste management	Low	<ul style="list-style-type: none"> The site must be managed appropriately and all waste must be removed to a licensed landfill facility. Sorting of waste Waste yard to be kept clean and neat Regular cleaning of waste yard so that it does not become a nuisance in terms of odour and vermin Adequate number of waste bins must be provided on site. The developer must ensure that feeders are checked for cleanliness and freshness and contaminated chicken food removed. 	Low	Waste that is not disposed of correctly mainly leads to the following: <ul style="list-style-type: none"> Environmental degradation Water pollution Infestation by rodents and potential disease causing vectors
6.3 Manure removal	Medium	<ul style="list-style-type: none"> Chicken manure will be taken from the broiler houses at the end of each cycle (6 weeks) and sold to farmers in the area to be used as fertilizer. Manure will be preserved in a dry, enclosed area, covered by sheeting. 	Low	Foul odours Unhealthy conditions
6.4 Mortalities	Medium	<ul style="list-style-type: none"> Mortalities will be removed to a mortality pit on the property. A product such as Decombuster will be used in the mortality pit. Decombuster Granules are fully degradable and enhance the performance of mortality pits by speeding up decomposition of animal carcasses. The capacity of the pit is increased along with the life of the pit. It does not contribute to the pollution of water and it contains no phenols or phosphates. 	Low	Foul odours Unhealthy conditions
7. ISSUE: OPERATIONAL ACTIVITY				
7.1 Layout /position on property for the Proposal	Medium	<ul style="list-style-type: none"> The project footprint for the proposal is within degraded Thornveld with low sensitivity. 	Medium	-

Significance Rating for the construction and operational phase

Alternative 1

Significance Rating for the construction and operational phase for Alternative 1 is similar to that of the proposal with the exception being the impacts anticipated as a result of the alternative position of the proposed broiler houses.

Table 12: Significance Rating for the construction and operational phase - Alternative 1

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation	Risk of the impact and mitigation not being implemented
OPERATIONAL PHASE				
7. ISSUE: OPERATIONAL ACTIVITY				
7.1 Layout /position on property for Alternative 1 (Phase 3)	High	<ul style="list-style-type: none"> Phase 3 of Alternative 1 is situated within a Medium Sensitivity area. The close proximity with neighbouring properties might cause a nuisance to the neighbours. Greater overall impact. 	High	-

Significance Rating for the No-Go Alternative

No-Go Alternative

Table 13: Significance Rating for the No-Go Alternative

Potential Impacts	Significance rating of impacts	Proposed mitigation	Significance rating of impacts after mitigation
CONSTRUCTION PHASE			
1. ISSUE: IMPACT ON THE ENVIRONMENT			
1.1 Impact on the environment	Not Significant	<ul style="list-style-type: none"> None 	Not Significant
OPERATIONAL PHASE			
1. SOCIO ECONOMIC AND CULTURAL HISTORICAL ENVIRONMENT			
1.1 No Job creation	Medium	<ul style="list-style-type: none"> None 	Medium
1.2 Loss of investment	Medium	<ul style="list-style-type: none"> None 	Medium
1.3 Food Insecurity	High	<ul style="list-style-type: none"> None 	High

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

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Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

No impact assessment can be completely certain of the exact nature and extent of the various impacts that would result from a given development activity. However, this assessment strives to limit any uncertainties by optimising the collection of

base data, and by following a rigorous impact assessment methodology.

Biodiversity Assessment

The assumptions and limitations for the assessment were as follows:

- All information regarding the project as provided by the Client are taken to be accurate;
- Field investigations were conducted on 20 January 2021, which is during the wet season (summer season) for the region. Sufficient summer rainfall had already fallen in the area. Due to the small size and condition of the study area, as well as the nature of the study, no additional field investigations are required, including a dry season (winter season) assessment.
- Due to the small size and nature of the study no other specialist studies in terms of ecological assessments are necessary or recommended.
- Precise buffer zones or exact GPS positions cannot be made using generalised corridors or KML files on Google Earth. However, the buffer zones, delineations, etc. drawn on maps and obtained in kml files, shapefiles, etc. are accurate to within 2-3m;
- Standard and acceptable methodologies were used, as required and used in South Africa.
- The latest data sets were used in terms of obtaining and establishing background information and desktop reviews for the project. The data sets were taken to be accurate but were verified and refined during field investigations (ground-truthing).
- No specific or highly specialised scientific equipment were used except standard soil augers, hand-held Garmin GPS instruments, relevant computer programmes, etc.
- There were no limitations encountered that hindered the project or potentially impacted on the outcomes of the study. All areas of the study site and other areas requested to investigate where able to be accessed with ease and the full assistance of landowners.

3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

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

No decommissioning is envisaged but should it take place the impacts are described below (Proposal and Alternative 1).

Direct impacts:

The direct impacts associated with the decommissioning of the site are likely to be similar to the construction phase.

- Dust pollution.
- Noise pollution.
- Visual impact.
- Waste.
- Deep excavations.

Indirect impacts:

The indirect impacts associated with the decommissioning of the site are likely to

be similar to the construction phase.

- Security.
- Traffic.
- Spread of alien vegetation.

Socio Economic:

- The decommissioning of the site will result in job losses.
- Loss in revenue for the local economy.

Cumulative impacts:

- Surface water pollution.
- Traffic.

Mitigation:

The site will only be decommissioned if it is no longer needed.

- Decommissioning should take place during the dry winter months.
- Dismantling of equipment must be conducted by an accredited contractor.
- Waste disposal certificates must be obtained for the disposed waste.
- Deep excavations must be cordoned off with safety/barrier net prior to being back filled.
- Once the site has been filled it must be rehabilitated.

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

None

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

No decommissioning is envisaged.

4. CUMULATIVE IMPACTS

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

CONSTRUCTION IMPACTS

Construction phase

- Construction impacts may further lead to nuisance noise impacts, the transformation of the general ambience and quality of the site and surrounds and visual concerns.
- The EMPr for the construction phase should therefore be implemented to minimise the impact of construction activities on the environment.

Increased run off of Water

- Storm water runoff has the potential to erode the topsoil and result in sedimentation of water bodies if not controlled.

Ground Water Pollution

- The construction phase could result in increased infiltration of contaminants into the ground water and soil.
- The clearing of the site could result in exposed soil surfaces which may be prone

to erosion, creation of dust and sedimentation of water bodies.

- Cement mixing and the storage of fuel must be conducted so as to prevent contamination of the soil and groundwater.

Socio Economic

- Job creation.
- Increase in job seekers in the area

Waste

- The construction and subsequent operational activities will be the source of various waste streams which must be managed appropriately.

OPERATIONAL IMPACTS

Health

- People movement is one of the main means of transmitting disease between flocks or farms, therefore visitors should be restricted to the absolute minimum.

5. ENVIRONMENTAL IMPACT STATEMENT

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

Proposal

The development of the proposed Haakdoornlaagte Broilers as per the proposal will have an impact on the immediate biophysical environment which cannot be mitigated. However, the biophysical impact of the development will be limited in a regional context, and will be more than offset by the social benefits of the development.

The study site is within the original extent of Marikana Thornveld, which is a threatened veld type (ecosystem) with a status of 'Vulnerable'. However, there are no specific sensitive habitats on site, such as streams, drainage lines, wetlands, koppies or groves of old trees (typically found on termitaria - old termite mounds).

The project footprint for the proposal is within degraded Thornveld with low sensitivity.

There are no red data listed (RDL) flora species on site, which includes rare and endangered species. No orange data species (ODL) were observed on the actual study site. There are no protected trees on the study site either.

The proposed Haakdoringlaagte Farms Broilers will have a short term impact ranging from very low to medium during the construction phase, and a long term impact ranging from low to high during the operational phase, but will result in positive benefits to the community during the operational phase if the correct mitigation measures are implemented during the construction and operational phases.

Please see below a summary of the identified impacts and their pre-mitigation and

post-mitigation impact significance rating scores.

Table 14: Summary of identified Impacts – Proposal

Potential Impacts	Significance rating of impacts	Significance rating of impacts after mitigation
CONSTRUCTION PHASE		
1.1 Development footprint, construction camp and related activities	Very Low	Very Low
2.1 Dust/Air pollution - The generation of fugitive dust associated with construction activities & earthworks.	Medium	Low
3.1 Site clearance	Very Low	Very Low
3.2 Bulk earthworks: Deep cuttings, high embankments, disposal of spoil and excavations cause local changes to topography	Very Low	Very Low
4.1 Disturbance of surface geology for development foundations	Very Low	Very Low
4.2 Soil erosion, loss of topsoil, deterioration of soil quality	Medium	Low
4.3 Soil and ground water pollution	Very Low	Very Low
5.1 Degradation, destruction of habitats/eco-systems	Low	Low
5.2 Impacts on fauna and flora	Medium	Low
5.3 Loss of natural vegetation	Medium	Medium
5.4 Invasive Species	Low	Low
6.1 Storm water flow and drainage-	Very Low	Very Low
6.2 Impact on water quality and surface pollution	Low	Low
7.1 Noise and vibration	Very Low	Very Low
7.2 Employment opportunities	Medium (Positive)	Medium (Positive)
7.3 Impact on the privacy and safety of adjacent land owners.	Medium	Low
7.4 Destruction of cultural/heritage sites	Insignificant	Insignificant
8.1 Safety and Security	Very Low	Very Low
8.2 Hygiene	Very Low	Very Low
9.1 Pressure on existing infrastructure and services	Very Low	Very Low
9.2 Waste	Low	Very Low
9.3 Concrete and cement preparation and handling	Low	Very Low
10.1 Closure and rehabilitation	Very Low	Very Low
OPERATIONAL PHASE		
1.1 Visual impact	Low	Low
2.1 Alien invasion	Medium	Low
3.1 Storm water flow and drainage	Medium	Low
3.2 Impact on water quality	Low	Low
4.1 Employment opportunities	Medium (Positive)	Medium (Positive)
4.2 Noise pollution	Medium	Low
4.3 Foul odours	Medium	Low
4.4 Flies	High	Low
4.5 Health risk to employees	Medium	Low
4.6 Animal Health Control and Welfare	High	Medium
5.1 Safety and Security (including fire risks)	Medium	Low
6.1 Pressure on existing infrastructure and services	Low	Low
6.2 General waste management	Low	Low
6.3 Manure removal	Medium	Low
6.4 Mortalities	Medium	Low
7.1 Layout /position on property for the Proposal	Medium	Medium

Alternative 1

The potential impacts for the construction phase and operational phase for Alternative 1 is similar to that of the proposal with the exception being the impacts anticipated as a result of the alternative position for Phase 3 of Alternative 1 for the proposed broiler houses.

Alternative 2

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No-go (compulsory)

The “No-Go” alternative refers to the alternative of not embarking on the proposed project at all and this option would not experience any impacts during the construction or the operational phase.

This will present both direct and indirect negative socio economic impacts such as:

No employment opportunities will be created

The proposed Haakdoornlaagte Broilers will create employment opportunities during the construction and operational phase. These opportunities will not come to fruition should the project not go ahead.

No profit generated (no positive impact on economy)

Farming can result in farmers having improved capacities to access capital, markets and value chains. This will result into investments that may lead to technology transfer and increased productivity. This will then result in the generation of profits for investors and farmers and tax income for governments, should the no-go option be followed these positive impacts will not materialise.

The No-Go alternative will disable the proposed development with the further opportunity to contribute to the food security of the area.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The impacts of the proposed activities have been summarised under Paragraph 5 above.

For alternative 1:

The impacts of the proposed activities have been summarised under Paragraph 5 above.

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

The project footprint for the Proposal (Phases 2 & 3) is within degraded Thornveld with low sensitivity, whereas Phase 3 of Alternative 1 is situated within a Medium Sensitivity area as per the Sensitivity map below.

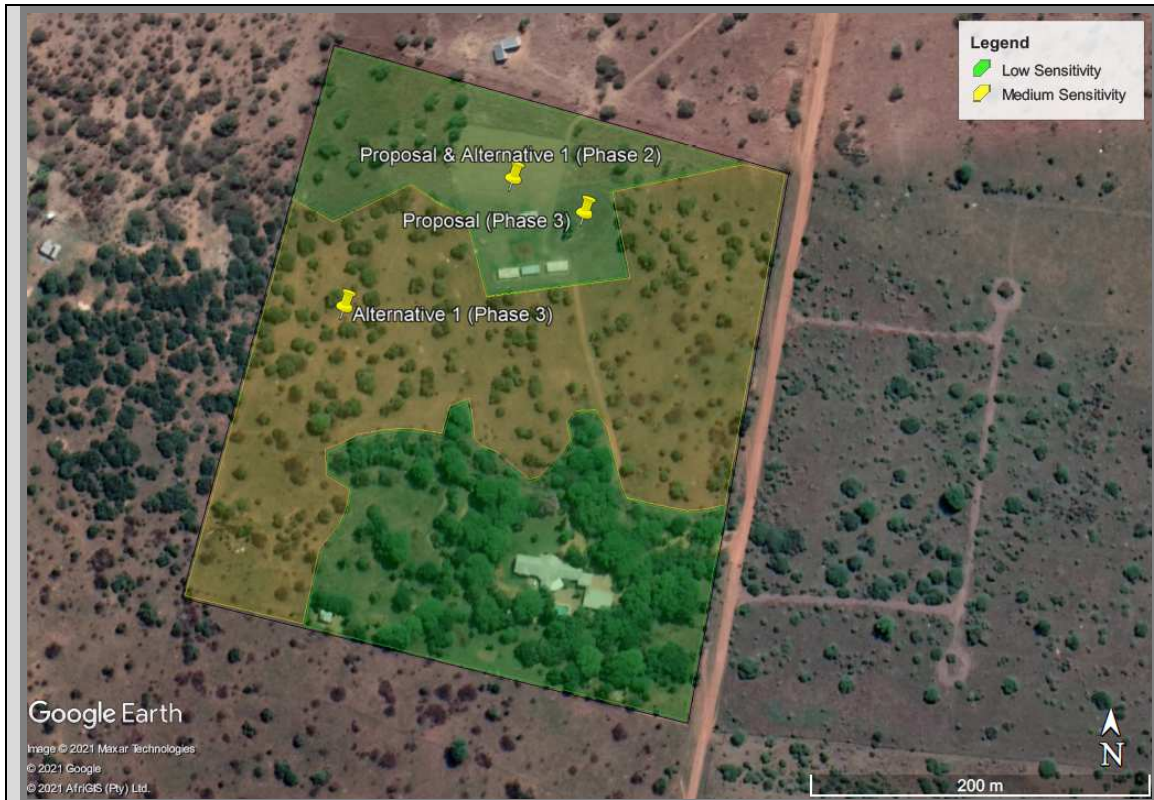


Figure 5: Sensitivity map of the study area

Chapter 5, Section 12(6) of the City of Tshwane By-laws relating to the keeping of animals, birds and poultry and to businesses involving the keeping of animals, birds, poultry and pets states the following:

'At least 100 m of clear unobstructed space must be maintained between any poultry house, poultry run or building or structure housing a battery system and –
(a) The nearest point of any dwelling, other building or structure used for human habitation;
(b) Any place where foodstuffs are stored or prepared for human consumption; and
(c) The nearest boundary of any land'.

The broiler houses proposed for the Proposal will be within 100m of the nearest dwelling and the nearest boundary of land. The boundary referred to, is the property to the north of the project site, being Portion 8 of the Farm Haakdoornlaagte 277 JR. This property also belongs to the applicant and the two properties are therefore managed as a single unit.

There is also a dwelling situated approximately 60m north of the proposed broiler houses. This dwelling will be used as accommodation for the employees of the proposed broilers and will furthermore serve as an added measure of security.

The Proposal will therefore not be a nuisance to neighbours as the broiler houses will not be in close proximity to neighbouring properties.

The broiler houses proposed for Alternative 1 (Phase 3) will be within 100m of the nearest boundary of any land as it will be approximately 38m from the neighbouring properties to the west of the project site, being Portions 59 and 66 of the Farm Waterval 273 JR. The close proximity with neighbouring properties might cause a

nuisance to the neighbours.

The applicant further prefers the proposal as the the different phases of the project will be in close proximity to each other.

The Proposal is therefore preferred to Alternative 1, as the overall impact of the proposed development on the surrounding area will be smaller.

7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

Gauteng Spatial Development Framework, 2011

Gauteng Province adopted the Gauteng Spatial Development Framework (GSDF, 2011) as the core policy framework intended to guide decisions relating to the location and nature of physical development in the Province. The GSDF seeks to achieve the following:

- Creation of a functionally integrated natural open space system and protection of the rural parts of the province for agricultural, recreational (walking and cycling), biodiversity and aquifer management purposes;
- The containment of urban sprawl by way of growth management that seeks to advance compaction, residential densification, and in-fill development, and mixed land uses within the existing urban fabric which will promote walking and cycling;
- The social and economic integration of disadvantaged communities into the urban system, particularly those on the urban periphery;
- The establishment of a hierarchy of nodes coupled with the improvement of linkages and connectivity between these nodes and areas of economic opportunity;
- Land use-public transport integration through nodal and corridor development;
- The promotion of viable public transport systems and reduction of reliance on private mobility with strong emphasis on densification along the priority public transport routes, especially rail and BRT routes which form the basis of the IRPTN movement system;
- Public transport routes become the priority areas for densification and infill development; and
- The urban system's existing and proposed road network is used to reinforce and shape the urban form as a growth management tool.

8. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).

YES

NO

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

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

- **The privacy of adjacent land users should be ensured throughout the life span of the proposed development.**
- **The presence of archaeological and/or historical sites, features or artefacts is always a possibility. Care should be taken when development commences that if any of the mentioned are discovered, a qualified archaeologist should be called in to investigate**
- **Mitigation measures contained in the Environmental Management Programme (EMPr) must be implemented and adhered to.**
- **All types of waste generated during each stage of the development from site preparation to final construction must be disposed of at a licensed disposal site.**

9. THE NEEDS AND DESIRABILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

The proposed project will create temporary employment opportunities during the construction phase and permanent employment opportunities during the operational phase of the project. The creation of these employment opportunities will have a positive impact on the local community. Contract work is furthermore associated with the construction and operation of such a facility and will create secondary employment in the broader local economy.

The proposed development will also contribute to the food security of the area. Goal 2 of the 17 Sustainable Development Goals (SDGs) is to end hunger, achieve food security and improve nutrition whilst promoting sustainable agriculture. The SDG 2 has eight targets. The five outcome targets are:

- Ending hunger and improving access to food,
- Ending all forms of malnutrition,
- Agricultural productivity,
- Sustainable food production systems and resilient agricultural practices, Genetic diversity of seeds, cultivated plants and farmed and domesticated animals
- Investments, research and technology

The three means for achieving SDG 2 include addressing trade restrictions, and distortions in world agricultural markets and food commodity markets and their derivatives.

Globally, 1 in 9 people are undernourished, the vast majority of whom are living in developing countries. Under nutrition contributes to nearly half of deaths in children under the age of 5 - 3.1 million per year and approximately 47million of children are affected by wasting.

This proposed development will be in line with the efforts of the Sustainable Development Goal 2 – Zero hunger.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED
(consider when the activity is expected to be concluded)

Medium term (2-15 years)

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)

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

EMPr attached

YES

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.