



# OGUNJINI POULTRY PROJECT

DC 29/0002/2021 KZN/EIA/0001531/2021 – DRAFT REPORT - Proposed construction of 3 x chicken houses with a capacity of 20 000 birds in each house, totaling 60 000 birds for all three houses.

## ABSTRACT

Draft Basic Assessment report for the proposed development of chicken houses for egg production. Includes description of the proposed development, preferred alternatives, receiving environment, potential impacts and proposed mitigation measures. This report has been prepared in line with the EIA Regulations, 2014 as amended.

**Prepared by: Mondli Consulting Services**

## Executive Summary

Mondli Consulting was appointed by Crossworld (Pty) Ltd to conduct a Basic Assessment process for their proposed development of a poultry egg farm within Ogunjini area. The site where the project will take place is falling under ward 13 of Ndwedwe Local Municipality, iLembe District Municipality.

The property that the site is located on is currently vacant with vegetation on it including grass and patches of dense bush/trees. The Developer is proposing to construct 3 chicken houses with each house having an area of 4000m<sup>2</sup>. There will also be other structures such as storeroom, bin area etc. The proposed development foot print will be about 1.3HA in total. Each of the chicken houses will accommodate 20 000 chickens and therefore in total, 60 000 chicken will be accommodated on the farm at any given time. The proposed project scope was assessed against the EIA Regulations (2014) and associated Listed Activities to identify the necessary process to be followed in order to comply with the National Environmental Management Act (NEMA, Act No 107 of 1998).

It was identified that the proposed development falls within thresholds of Activities listed within Listing Notice 1 of the EIA Regulations Listing Notices. Therefore, the proposed development is required to obtain an Environmental Authorization through the Basic Assessment Process prior to its commencement in order for it to be in compliance with NEMA/EIA Regulations.

There are two main negative environmental impacts that could potentially result from the proposed development. These are:

- Health impacts to the surrounding community: it is important that all waste

This is the draft Basic Assessment Report that has been compiled according to Appendix 1 of the EIA Regulations. This report has been formulated following undertaking of:

- Desktop and site assessment;
- Consideration of project scope as described by the Developer;
- Identifying Legislation relevant to the proposed development and
- Pre-Application meeting conducted with the Competent Authority.

The Basic Assessment Process and Report therefore includes amongst others:

- Description of the proposed development.
- Description of the receiving environment: description of the property and site including description of biophysical, geographical, heritage and socio-economic conditions of the site and locality of the proposed project.
- Investigation of alternatives for proposed project including site, technology to be used etc. or motivation for not having alternatives.
- Assessment of possible environmental impact assessments of the proposed development.
- Proposed mitigation measures against the possible environmental impacts and steps to maximize positive impacts.

is handled with care during the operational phase and that manure is also handled accordingly or the proposed development could have health impacts from gases emitted and through pests such as flies and rodents.

- Ground and surface water contamination: this is also from manure and waste management which could lead to compounds being leaked into the soil or washed by runoff into nearby watercourse. This is mainly applicable for the ground water and surface water contaminated could only be runoff as there are no rivers or wetlands within the immediate surrounding of the site.

On the other hand, the proposed development promises significant positive contribution to the socio-economic standing of the community especially as there will be permanent jobs for ±20 people during the operational phase which could also include managerial positions. This impact could be at a Municipal scale in the future if the business succeeds and draws more income significantly contributing to increased GDP in the Ndwedwe Local Municipality.

It is therefore the view of the EAP that the proposed development should be considered favorably with guidance and conditions to ensure that environmental impacts are kept at low levels. It is important that projects that promise community upliftment are encouraged but of course not at the expense of the environment. The view is therefore based on the opinion that the impacts identified as potential impacts through the environmental impact assessment can be reduced to levels that allow for overall continued ecosystem functionality and integrity within the surrounding environment.

## Contents

A.	DETAILS AND EXPERTISE OF THE EAP WHO PREPARED THE REPORT.....	1
B.	THE LOCATION OF THE ACTIVITY .....	2
C.	A PLAN WHICH LOCATES THE PROPOSED ACTIVITY OR ACTIVITIES APPLIED FOR.....	2
D.	DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTIVITY .....	2
E.	A DESCRIPTION OF THE POLICY AND LEGISLATIVE CONTEXT WITHIN WHICH THE DEVELOPMENT IS PROPOSED .....	6
	<i>Property on which the activity is undertaken .....</i>	14
	<i>Type of activity undertaken .....</i>	15
	<i>Design and layout of the activity.....</i>	15
	<i>Technology to be used by the activity .....</i>	16
	<i>Alternative site .....</i>	16
	<i>No - go option.....</i>	16
H.	A FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVES.....	16
	<i>i. Details of all the alternatives considered .....</i>	16
	<i>ii. Details of the public participation process undertaken .....</i>	19
	<i>iii. A summary of the issues raised by interested and affected parties.....</i>	19
	<i>iv. The environmental attributes associated with the alternatives .....</i>	21
	<i>v. The impacts and risks identified for each alternative.....</i>	26
	Details of the impact rating tools .....	26
	<i>vi. The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts .....</i>	30
	<i>vii. Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community .....</i>	30
	Impacts identified for the preferred site.....	31
	<i>viii. An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures....</i>	31
	<i>ix. The possible mitigation measures that could be applied and level of residual risk.....</i>	34
	Impact Significance.....	40
I.	WHERE APPLICABLE, A SUMMARY OF THE FINDINGS AND IMPACT MANAGEMENT MEASURES IDENTIFIED IN ANY SPECIALSITS REPORT COMPLYING WITH APPENDIX 6 TO THESE REGULATIONS AND AN INDICATION AS TO HOW THESE FINDINGS AND RECOMMENDATION WILL BE INCLUDED IN THE FINAL REPORT; - .....	41
J.	AN ENVIRONMENTAL STATEMENT WHICH CONTAINS.....	42

<i>(i) A summary of the key findings of the environmental impact assessment</i> .....	42
<i>(ii) A map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffer</i> .....	42
<i>(iii) A summary of the positive and negative impacts and risks of the proposed activity and identified alternatives</i> .....	43
<b>K. BASED ON THE ASSESSMENT, AND WHERE APPLICABLE, IMPACT MANAGEMENT MEASURES FROM SPECIALISTS REPORTS, THE RECORDING OF THE PROPOSED IMPACT MANAGEMENT OUTCOMES FOR THE DEVELOPMENT FOR INCLUSION IN THE EMPr</b> .....	43
<b>L. ANY ASPECTS WHICH WERE CONDITIONAL TO THE FINDINGS OF THE ASSESSMENT EITHER BY THE EAP OR SPECIALIST WHICH ARE TO BE INCLUDED AS CONDITIONS OF AUTHORISATION</b> .....	43
<b>M. A DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES, AND GAPS IN KNOWLEDGE WHICH RELATE TO THE ASSESSMENT AND MITIGATION MEASURES PROPOSED</b> .....	44
<b>N. A REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED, AND IF THE OPINION IS THAT IT SHOULD BE AUTHORISED, ANY CONDITIONS THAT SHOULD BE MADE IN RESPECT OF THAT AUTHORISATION</b> .....	44
<b>O. WHERE APPLICABLE, DETAILS OF ANY FINANCIAL PROVISIONS FOR THE REHABILITATION, CLOSURE, AND ONGOING POST DECOMMISSIONING MANAGEMENT OF NEGATIVE ENVIRONMENTAL IMPACTS</b> .....	45
<b>P. ANY SPECIFIC INFORMATION THAT MAY BE REQUIRED BY THE COMPETENT AUTHORITY</b> .....	45
<b>AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP</b> .....	46

**List of Figures**

**Figure 1:** Google Earth Image showing a rough outline of the property within which the proposed development is located. .... 17

**Figure 2:** Image showing position of the site on the SANBI KZN Landscape and Veld Type Map. .... 22

**Figure 3:** Image showing some conservation features within locality of the site with the Eastern Scarp Forest highlighted in blue polygon. .... 22

**Figure 4:** Images showing some of the vegetation observed near/within the proposed preferred site. .... 24

**Figure 5:** Image showing general view of a portion of the site. .... 25

**List of Tables**

**Table 1:** Table showing Listed activities triggered by the proposed development. .... 3

**Table 2:** Table showing identified Legislation, policies, plans and Municipal Development planning frameworks applicable to the proposed development. .... 6

**Table 3:** Table showing identified stakeholders, I&APs and State Departments who will be consulted and given the opportunity to comment on the proposed development. .... 20

**Table 4:** Table showing significance rating scale. .... 26

**Table 5:** Table showing extent rating scale. .... 28

**Table 6:** Table showing magnitude rating scale. .... 28

**Table 7:** Table showing irreplaceability scale. .... 29

**Table 8:** Table showing impact reversibility scale. .... 30

**Table 9:** Table showing impact probability scale. .... 30

**Table 10:** Impact Assessment for Potential Impacts ..... 36

## DRAFT BASIC ASSESSMENT REPORT – EDTEA REF:

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

Department of Economic Development, Tourism and Environmental Affairs (EDTEA):

### Project Title

Proposed construction and operation of facilities for the concentration of poultry (60 000 layers) on the site located at Ogunjini area, ward 13, within Ndwedwe Local Municipality, KwaZulu – Natal.

#### A. DETAILS AND EXPERTISE OF THE EAP WHO PREPARED THE REPORT:

Mondli Consulting Services has been appointed by Crossworld (Pty) Ltd to undertake the applicable Environmental Impact Assessment Process (Basic Assessment) for the proposed development of an egg poultry farm at Ogunjini area, Ward 13 of Ndwedwe Local Municipality.

Details of the EAP:

Business Name of EAP	Mondli Consulting Services		
Physical Address	6 Joseph Avenue, New Era House, Suite 9, Durban North		
Postal Address	P O Box 22536, Glenashley		
Postal Code	4022		
Telephone	0826799841	Cell	0824187708
Email	<a href="mailto:mondlib@webmail.co.za">mondlib@webmail.co.za</a> <a href="mailto:mondlibee@gmail.com">mondlibee@gmail.com</a>	Fax	031 5725647

The expertise of the EAP (including curriculum vitae) IS ATTACHED as Appendix G (1)(b).

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
A Mhatu	Bachelor of Science Degree Ecology, Environment & Conservation and Geography	SACNASP Registered (Membership No. 125863). Awaiting outcome of EAPASA application.	Has over 6 years experience in conducting EIAs and EIA related work.
BM Mthembu	Diploma in Nature Conservation  Master's Degree (Environmental Studies Dissertation, Geography)  Bachelor of Laws (LLB)	EAPASA registered EAP: No. 2018/168 in accordance with the prescribed criteria of Regulation 15(1) of section 24 H Registration Authority Regulation  Society of South African Geographers (Membership No. 28/09), confirmed to	Has been involved in environmental and conservation field for over 20 yrs. Conducted EIAs for over 17 years including Strategic Env. Assessment.  Has been involved in

		comply with the requirements set by South African Council for Natural Scientific Professions.	the review and commenting on development projects impacting on the environment.
--	--	---	---

**B. THE LOCATION OF THE ACTIVITY**

(i) The site for the proposed Ogunjini Poultry project located within Ward 13 of Ndwedwe Local Municipality, Ilembe District Municipality, KwaZulu Natal Province. The 21-digit Surveyor

General code of each cadastral land parcel is given in the table below.

N	O	F	T	0	0	0	0	0	0	0	0	0	4	6	7	5	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

(ii) The physical address and farm name

The site for the proposed development is located on Farm/Erff 4675, Inanda Location. It is situated about 3km from Osindisweni Hospital. The property which has a total size of 6. 2815 Ha is currently vacant with no existing developments on the site although there have been some impacts on the site including burning of vegetation and animal grazing. Local Road D1567(P713) borders the eastern side of the site and access for the development will be gained through this road.

Property Number	Size	Development Type
1	The total size of the property is 6. 2815 Ha some of which contains some shrubs and bushes.  The development footprint is expected to be about 1.3Ha.	Infrastructure

(iii) The general coordinates for the property are given below.

Latitude/Longitude	Degrees	Minutes	Seconds
South	29	34	52
East	30	58	11

**C. A PLAN WHICH LOCATES THE PROPOSED ACTIVITY OR ACTIVITIES APPLIED FOR AS WELL AS ASSOCIATED STRUCTURES AND INFRASTRUCTURE AT AN APPROPRIATE SCALE.**

A locality map has been attached under **Appendix A (i)** showing the locality of the property including surrounding towns. This includes the sketch map as well. A layout map showing where the structures will be located on site, as well as the Facility illustration.

**D. DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTIVITY, INCLUDING –**

(i) All listed and specified activities triggered and being applied for



The project entails the construction of 3 x chicken houses with a capacity of 20 000 birds in each house, totaling 60 000 birds for all three houses. Each house is 100m x 40m = 4 000m<sup>2</sup>. Therefore, the three houses will utilize a space of 12 000m<sup>2</sup> (1.2 HA) with a total distance of 6m separating the houses from each other. The total footprint of the proposed development is 1.3HA.

The table below shows Listed Activities within the National Environmental Management Act, 1998 (NEMA), GNR 324, 325 and 327 that will be triggered by the proposed development based on the project description given and the receiving environment of the site.

Table 1: Table showing Listed activities triggered by the proposed development.

Indicate the number and the date of the relevant notice;	Activity No(s) (in terms of the relevant notice)	Describe each listed activity as per the project description (and not as per wording of the relevant Government Notice):
GNR. 327 of 2014 (Listing Notice 1) as amended on 7 April 2017.	Activity No. 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 area.	The proposed development will include construction of three chicken houses with each of the houses to accommodate 20 000 layers, giving a total of 60 000 layers for all three houses.
GNR. 327 of 2014 (Listing Notice 1) as amended on 7 April 2017.	Activity No. 27 - the clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation.	The proposed site for the poultry project is 6.2815 HAs in extent, however it is anticipated that only the area where chicken houses will be located will be cleared. At this stage it would appear the development footprint will be just over a hectare.

(ii) A description of the activities to be undertaken including associated structures and infrastructure

**Background of the proposed development**

Crossworld (Pty) Ltd is proposing the development of poultry farming structures, with associated infrastructure. This will include construction of 3 chicken houses that will each host 20 000 layers. The development is therefore expected to accommodate a total of 60 000 layers. The main purpose of the project is raising egg laying birds/chicken for the purpose of commercial egg production. Eggs from the project will be sold to different stores in nearby towns and to the local community.

## **Overview**

The proposed development will include a construction of 3 chicken houses of equal size. Each of the chicken houses will have an area of 0.4Ha and there will be a space of 6m between each of the houses as required.

The development will therefore include: -

- 3 chicken houses
  - Egg collection system
  - Manure scraper
  - Feeding System
  - Water System: a single borehole will be established within the property
  - Electrical component
  
- Storage house
- Waste storage bin area
- Development of site access and fencing of the site.

The proposed chicken houses will be constructed to meet the standards and best practice for chicken houses. They will be structured in such that they protect layers from direct sunlight, excessive wind, rain, extreme heat or cold, wild birds / animals and theft. The applicant plans to distribute the chicken waste as fertilizer to nearby farmers. Although the area has portable water, but the water supply for the proposed development will be through a borehole which will be located towards the southern boundary of the site with nipple lines connected to the borehole.

## **Project Objectives**

The objective of the project is to provide locally produced high-quality eggs to stores in areas neighboring the site. Employment opportunities during the construction and operational phases will be available for the upliftment of the local people.

## **Services on-site**

### **Access/Roads**

The site is bordered by a local road D1567 (P713) which will be used to access the site. However, proper access from the mentioned road will need to be established for the project, through comments and recommendations from the KwaZulu – Natal Department of Transport (KZNDoT).

### **Electricity**

The area within which the proposed development is located has Eskom supplied electricity. Electricity for the proposed development will therefore be sourced from the same supplier with proof of engagement of relevant party/representative to be attached to the assessment report.

### **Water Supply**

A borehole will be developed within the property and water pipes will be installed to transport water to the exact location of the site within the property.

### **Sewer Supply**

The area has no sewer infrastructure, and therefore the toilets are not waterborne. It will be the responsibility of the Contractor to supply sewer facilities during the construction phase. This can be done through provision of a temporary ablution mobile toilets.

The operational phase of the project will use septic tanks or conservancy tanks.

### **Stormwater**

The stormwater plan will be compiled as advised by the Project Engineer to dispose of the water from the site.

### **Waste Management During the Construction Phase**

All waste/rubble from the construction phase will be stored in wind and scavenger proof containers. Such waste will regularly be transported to and disposed of at the nearest waste disposal site (eThekwini Buffelsdraai Landfill Site). The appropriate area and interval for waste disposal will be agreed to between Engineer, Contractor and ECO to ensure that waste disposal does not culminate in any environmental degradation.

### **Waste Management During the Operational Phase**

General Waste produced during the operational phase will be disposed of at eThekwini Buffelsdraai Landfill Site. An arrangement will be made with nearby farmers for the disposal of chicken manure for their use as fertilizer for crop production. Although the chicken manure will be collected and dried on impermeable containers and then stored in bags at a suitable storage location, but it is not anticipated that it will be stored for a long period on site. The idea is to have it sold to local and nearby farmers, and collected as soon as possible.

### **Construction Phase**

The construction phase of the development will include:

- Clearing of vegetation for development platforms.
- Compaction of platforms and development of structures such as storage room and chicken houses.
- Drilling of borehole and installation of piping system to take water from the borehole to a tank on the site.
- Establishment of access into the site that will be used for the operational phase
- Fencing of the site

Vegetation on site will be retained as much as possible. Through engagement of an ECO, transplanting of some plants if necessary, should be undertaken should vegetation assessment confirm presence of plants of significant importance.

E. A DESCRIPTION OF THE POLICY AND LEGISLATIVE CONTEXT WITHIN WHICH THE DEVELOPMENT IS PROPOSED INCLUDING –

- (i) *An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report.*

Table 2: Table showing identified Legislation, policies, plans and Municipal Development planning frameworks applicable to the proposed development.

LEGISLATION	AUTHORITY	COMPLIANCE/APPLICABILITY
National Environmental Management Act (No. 107 of 1998).	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	The Environmental Management: EIA Regulations promulgated according to this Act guided the Environmental Impact Assessment Process conducted for the proposed development.
EIA Regulations, 2014 as amended.	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	EIA Regulations were adhered to during the Environmental Impact Assessment including determining the need for an Environmental Authorization, the Application/Assessment Process to be followed, conduction of the public participation and report formulation.
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	These guidelines were considered in terms of exploring alternatives linked to the proposed development.
Guideline on Need and Desirability, Department of Environmental Affairs	Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	In terms of these guidelines the need and desirability of the project has to cover certain specifics like training, safety, service delivery, benefits to the local people and the alignment of planning related issues to the project.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Department of Environment, Forestry and Fisheries (National Authority)	All necessary steps will be taken to reduce the impact of the project on the biodiversity of the receiving environment.

**DRAFT BASIC ASSESSMENT REPORT FOR OGUNJINI POULTRY PROJECT V01**

	Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	
Pollution Prevention Act (APA) (Act No. 45 of 1965)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	Measures have been provided within both the Basic Assessment Report (BAR) and Environmental Management Programme (EMPr) to ensure that waste produced during both construction and operational phase does not result in pollution of the surrounding environment on site.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	This is applicable mainly due to dust during construction phase and possible smell during operational phase. The location of the site has taken into consideration the smell which may come from the farm during the operational phase and as such, a distance has been allowed for/kept between the farm and the nearest residence/homestead. Dust suppression measures will be implemented during construction phase.
The National Water Act (No. 36 of 1998).	Department of Human Settlements, Water and Sanitation	All necessary permits will be obtained for the borehole that will be drilled for this project. Precaution will also be taken to ensure that activities linked with the proposed development do not result in pollution/contamination of any water resources.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	All waste produced during construction and operational phase of the project will be handled and disposed of in compliance to this Act and associated regulations.

**DRAFT BASIC ASSESSMENT REPORT FOR OGUNJINI POULTRY PROJECT V01**

Alien and Invasive Species Regulations, 2014.	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	All necessary precautions will be taken throughout the project life-cycle to ensure that no alien or invasive plant species are introduced as a result of the project.
National Forests Act (Act No. 84 of 1998)	Department of Environment, Forestry and Fisheries	Forests and woodlands near the site will not be disturbed. Any tree/plant species of biodiversity significance will be preserved.
KwaZulu-Natal Amafa and Research Institute Act, 2018	KZN Amafa Research and Institute	Provides for the safeguarding of heritage resources within the project area. Guidelines will be given for process to be followed if any heritage resources are discovered on the site.
Noise Control Regulations (Regulations 154, 10 January 1992)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	Noise levels throughout the project cycle must be kept as low as possible to ensure that there is no nuisance or health impact on community and/or workers resulting from the proposed project.
National Development Plan	RSA Government Departments, Municipalities and Public Entities	Members of the community within which the project is located will be employed during the construction and operational phases. Community members may also be provided with the opportunity to hold managerial positions provided that they meet the requirements for such positions.
South African Constitution, 1996	Government of the Republic of South Africa	Due diligence will be taken to ensure that project related activities do not result in the violation of constitutional rights of community members and/or employees within project.
Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000)	Department of Justice and Correctional Services	Integrated decision making has been allowed for through public participation allowing all relevant departments, stakeholders and community members to have input on the

		decision made. Should an Environmental authorization be issued, the decision, reasons for the decision and appeal procedures will be disclosed to all who took part in the public participation.
Ndwedwe Local Municipality Integrated Development Plan (IDP), 2020/2021	Ndwedwe Local Municipality	The proposed development will provide an area of economic activity within the project locality and therefore municipality. The employment of locals as part of the project will help alleviate poverty within the community especially in the instance of permanent jobs offered to community members.
Ilembe District Municipality Integrated Development Plan (IDP), 2019/2020	Ilembe District Municipality	The proposed development is in line with the principles of the Ilembe District Municipality. It's success will (on a small scale) help address some of the challenges outlined within the Ilembe District IDP .

**F. A MOTIVATION FOR THE NEED AND DESIRABILITY FOR THE PROPOSED DEVELOPMENT INCLUDING THE NEED AND DESIRABILITY OF THE ACTIVITY IN THE CONTEXT OF THE PREFERRED LOCATION**

The need and desirability of the project has to be informed by the principle of sustainability as provided for in the National Environmental Management Act, Guideline on Need and Desirability issued by the National Department of Environmental Affairs (2017), and ultimately the Constitution of South Africa. This serves as a way of ensuring that the proposed development is ecologically sustainable, and socially and economically justifiable.

The Guideline cited above among other things state that it is important to review the issues of need and desirability against the listed activities that has given rise to the application in its entirety. The need and desirability have to consider the broader community needs and interests as reflected in the municipal Integrated Development Plan (IDP), Spatial Development Framework (SDF) and Environmental Management Framework (EMF) for the area where the project is located.

Ndwedwe Local Municipality is one of the four local municipalities within the iLembe District Municipality. It is a predominantly rural area located close to Verulam and Tongaat and towns. The Municipality is characterized mainly by disadvantaged areas with main land uses including primary and secondary education facilities, health care facilities, community halls and administrative offices. One of the key challenges within the Municipality is local economic development with: -

- *Lack of viable economic activity centres to promote internal economic linkages.*
- *There is high unemployment rate (66.3%) and 60.3% of the population is not economically active. The high level of unemployment leads to an increased number of communities living under abject poverty.*

The proposed development will provide employment to some locals during construction and operational phases of the project. This will therefore result in some small-scale alleviation of poverty with numerous households to benefit economic development through salaries earned from employment on the project.

With high poverty, some families may also struggle to afford good nutrition foods especially with the ever increasing price of food. Having a local place where they can purchase eggs will most likely mean that they can purchase eggs at a lower price including cutting out travelling costs to nearby towns. This will mean one less item to stress about when grocery shopping. Some community members may even see this as a business opportunity and purchase the eggs at low price and resell at higher price with profit to be earned as income.

Although there are no existing structures within the property; there is evidence of prior disturbance which may include fire, animal grazing and plant removal. The portion of the property to be developed is subsequently mainly grass with some shrubs and trees surrounding. The clearance of vegetation for the site is therefore not expected to result in disturbance of any species of conservation importance such as threatened/protected species with vegetation removal to mostly be comprised of grass.

Looking at the guideline on need and desirability, and focusing more on planning tools like the IDP, SDF and EMF, these have been useful in the assessment. The said guideline provides a list of 14 aspects, which must be considered. Below the 14 aspects have been addressed for the proposed development.

- 1. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority? (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP).***

The area that the proposed development falls within is characterized by high unemployment and poverty rates at both local and district municipality levels. As such the 2020/2021 Local Municipality IDP states that one of its objectives is to develop a resilient economy that creates sustainable decent jobs and reduces poverty by facilitating the provision of support necessary for the development of SMME and cooperatives throughout the municipality. The support of SMMEs and agricultural development is also mentioned throughout the iLembe District Municipality's IDP as part of Local Economic Development Strategies.

Therefore, the proposed development is in line with the Local and District Municipality IDP.

- 2. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?***

It is desirable for the project to take place on this site as it is vacant, and the project will contribute in food security.



- 3. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate).**

The proposed development is viewed as a project that is needed by the community. Projects that will stimulate economic development and help alleviate poverty are seen as a priority for this area due to the high unemployment and poverty levels.

The proposed development could grow to a larger scale with possible development on other properties that could lead to significant contribution to District Municipality GDP. Although on its own, the project may not have a significant benefit on national scale, the project and other SMMEs that help employ people have a cumulative impact of alleviating poverty and improving economic development within the country.

- 4. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?**

The area where the proposed development is located is already being serviced by Eskom and as such, getting power to the site will not be a challenge. It is believed that Eskom has the capacity to provide power for the proposed development, however this will be confirmed with Eskom as they are a registered stakeholder.

Water for the proposed development will be obtained from a borehole with water to be stored in storage tanks on the site. Assessments conducted for the borehole show that there is capacity for sustainable water supply for the project.

All necessary communication with service providers confirming availability of capacity for the proposed development will be attached to the final Basic Assessment Report.

- 5. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?**

There is a local road to the east of the site which can be used to enter the project site. However; formal access will be established by the Developer with necessary input to be sought from relevant transport authority (Local Municipality/Provincial Department of Transport).

All other relevant infrastructure is currently available which will need to be maintained and upgraded as necessary not just for the project but for use by and safety of the community.

- 6. Is this project part of a national programme to address an issue of national concern or importance?**

To some extent the project does aim to address an issue of national concern as the issue of poverty and unemployment is not only a concern for local and provincial government but of the national government as well. One of the main ways to tackle unemployment and poverty within the country is to encourage local economic development which helps create employment for locals and to stimulate increased/improved local economic activity.

**7. Is the development the best practicable environmental option for this land/site?**

There are currently no developments on the site. However; the site has been previously disturbed and is not too close to the nearest homestead. There is also a road from which access to the site can be developed.

The proposed development will not result in excessive negative environmental impacts and is therefore seen as suitable for the site.

**8. Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?**

It is not expected that the approval of this application would compromise the integrity of any IDP or SDF. The proposed development is in line with both Local and District Municipality IDP and SDF. The area is not zoned for protection and has not been set aside for any future use or development.

**9. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?**

Approval of the proposed development will not compromise the integrity of any existing environmental management priorities for the area. Although both local and district municipality aim to conserve the environment and biodiversity of areas within their jurisdiction, the site for the proposed development has not been earmarked for conservation or as an environmental priority area.

**10. Do location factors favour this land use (associated with the activity applied for) at this place? This relates to the contextualisation of the proposed land use on this site within its broader context).**

Yes, the location factors favour the proposed land use. Although the gradient of the site is not flat, it is not too steep and is favourable for development of platforms on which to build the chicken houses.

There is an existing gravel road to the east of the site which can be used to access the site which is a positive factor for both the construction and operational phases of the proposed development. There is also a tar road not too far from the site with some neighbouring towns also close by for construction materials during the construction phase and distribution of eggs during the operational phase.

The site is also located far enough from houses to not cause an immediate nuisance in terms of noise and smell especially for the operational phase of the project.

**11. How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural / natural environment)?**

There are no sensitive natural or cultural areas within the immediate surrounding of the site. There is some dense bush vegetation to the western side of the site. However; this vegetation is on a cliff which will not be disturbed during either phase of the proposed development.

There are also no watercourses within the immediate surrounding with Mdloti River located just over 500m from the site at the bottom of the cliff to the western side of the site. The proposed development is not expected to affect the Mdloti River. Although the river is just over 500m of the site, the nature of the project and the cliff being between the river at the site reduces the chances that the river will be affected to 0% under the circumstance that best environmental practice is exercised during all phases of the proposed development.

No cultural or heritage features were observed on or near the site.

**12. How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc)?**

Provided that the project is carried out as per the description and scope of works given to the EAP, the proposed development is not expected to have any negative impact on the people's health and wellbeing with the site chosen believed to be far enough from the nearest homestead to not have any noise, visual or odour impacts.

The proposed development is most likely to allow people to buy eggs at a cheaper price than they would in retail stores in nearby towns. Therefore, this might help improve their nutrition as eggs are important source of protein, healthy fats and other vitamins and minerals.

**13. Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?**

No. There are no unacceptable opportunity costs expected.

**14. Will the proposed land use result in unacceptable cumulative impacts?**

On condition that the developer implements all mitigation measures laid out for both the construction and operational phase and adheres to Environmental and Agricultural Regulations and Guidelines, the proposed development is not expected to have unacceptable cumulative impacts. Cumulative impacts of the project over time are rather expected to be positive with specific reference to stimulation of economic development on a local scale.

There are three (3) different phases that will form part of the proposed development. These are: -

**(i) Pre-construction and planning phase**

This phase includes the appointment of professionals across different fields of expertise for all required assessments, permits and designs that need to be undertaken as part of the planning to ensure successful implementation of the project and compliance to all relevant legislations, regulations and guidelines.

**(ii) Construction phase**

This phase includes appointment of Contractors, Sub-Contractors and labour to carry out construction of the different structural components of the project. This includes appointment of locals which are often appointed for labour but may also be appointed for other roles based on skills required versus skills possessed. This phase also includes a strong involvement of engineers and for this application, an Environmental Control Officer will also be required.

**(iii) Operational phase**

This phase will include appointment of both locals and “imported”/external workers for the different roles required for successful operation of the business. There will also be transportation of eggs to different clients that the project will supply. Some eggs will also be sold within the community. The Developer will also consider having one or more of the locals as part of the managerial team but this will be strongly influenced by availability of individuals within the community that possess the required skills and/or qualifications.

**G. A MOTIVATION FOR THE PREFERRED SITE, ACTIVITY AND TECHNOLOGY ALTERNATIVE**

As per GN. R 326, Appendix 1(2)(b), alternatives for the proposed development are to be identified and considered, and this is in line with the definition under Chapter 1 of the EIA Regulations, interpreting alternatives as “in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the –

- a. Property on which or location where the activity is proposed to be undertaken;
- b. Type of activity to be undertaken;
- c. Design or layout of the activity
- d. Technology to be in the activity;
- e. Operational aspects of the activity

This includes the option of not implementing the activity. This approach compels the developers and assessors to consider other potential land uses and possible future land uses for the site under assessment.

In essence this section focusses on the motivation for the preferred site, looking at the topics covered below:

**Property on which the activity is undertaken**

The property that the proposed development is located on is within Ward 13 of Ndwedwe Local Municipality in Ogunjini Area. The area is a rural residential area with some sustenance farming. The property is bordered by a cliff to the west, a local road D1567, vacant land to the north and some residences about 500m to the south.

The property is under the ownership of Ingonyama Trust Board with Qadi Traditional Council (Inkosi MB Ngcobo) as the custodian of the property. The property has a total size of about 6Ha with the proposed development to only take up less than half of the total area of the property.

The homestead that is closest to the property is about 500m from the edge of the site within the property. The local area that the property is located on has access to electricity with Eskom as the principal energy provider.

The property was therefore chosen in agreement with the custodian (Inkosi Ngcobo) and was also identified to meet the requirements especially in terms of easy access to services such as electricity. Tests conducted also showed that water extraction through a borehole on the property would allow for sustainable water provision for the quantities required for the proposed development. Proximity of the site to the local gravel road D1567 also means that access to the site can be easily established which will be crucial to the success of the project during the operational phase.

No other properties were investigated as none are available to the developer.

#### Type of activity undertaken

With high unemployment rates in South Africa, business development is important to create employment opportunities and stimulate local economic development. It is important for the private sector to initiate economic development to relieve the pressure of having people solely dependent on government efforts.

The two gentlemen leading the project from the Developer's side are young black males. They have strictly chosen this type of activity as it is what they are passionate about. Also with the research that they have done, they identified this as the type of activity that they want to carry out which will help them generate income for their families whilst also providing for local economic development with some locals to be included in the different project phases.

The agricultural sector has been identified on local and national scale as an important sector to support to improve food security. Egg production falls within the agricultural sector which is also one of the reasons that the proposed development was chosen by the Developer.

#### Design and layout of the activity

The site layout and Facility illustration are shown as [Appendix A as indicated above](#).

However; as it stands, the design that has been chosen is quite basic/standard to meet the requirements for the design and positioning of chicken houses. There will be three (3) chicken houses with each chicken house being (100m x 40m). A total distance of 4m will be allowed for between the chicken houses. There will also be a storage room and some parking space allowed for.

The proposed development will include construction of:

- 3 x chicken houses at 100m x 40m each
- Tiered egg laying cages
- 20 000layers per chicken house
- Storage facilities including feed storage facility
- Ablution Facilities

Additional Internal Structures will include:

- Egg Collection system
- Manure scrapper
- Manure conveyor

- Pan feeding system
- 1x borehole which will be within the property and watering system including tank and pipes
- Curtain system
- Heating and ventilation system
- Waste Storage area

**Technology to be used by the activity**

The technology to be used is in line with the standards, guidelines and best practices for layer chicken farming and as such no alternatives were considered as technology chose was to ensure compliance with minimal requirements.

**Alternative site**

The position of the site within the property may be changed especially following input from the specialists engaged in the environmental assessment process. These will be discussed in detail in the final BAR with the pros and cons of each site to be stated within the final BAR.

**No - go option**

Should the application for the proposed development not be granted or approved, the status quo of the receiving environment will remain the same. There will be loss of money for the developer with funds having already been invested into the assessments and designs and other activities as part of the pre-construction and planning phase. The economic development opportunities that would have been gained through the project will not be realised.

**H. A FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVES WITHIN THE SITE, INCLUDING:**

***i. Details of all the alternatives considered***

**Property on which the activity is undertaken**

The property on which the proposed development will take place is the only property that the Developer was able to secure for the purposes of the proposed development. This is the only site that Inkosi Ngcobo could avail to the developer. No other properties were considered.



**Figure 1:** Google Earth Image showing a rough outline of the property within which the proposed development is located.

The factors that make the property desirable for the proposed development include:

- Lack of immediately detectable environmental sensitivities within the site including watercourses and animal life.
- Proximity to a usable road: the property is close to a local gravel road from which access to the site can be gained. This gravel road connects to tarred roads that lead to nearby towns such as Verulam with access to the site being important especially during the operational phase.
- The property is vacant with no other developments on the site which will allow for the development to take place without causing a nuisance to other developments on the property.
- There is provision of electricity by Eskom within the locality of the property with some Eskom poles and lines close to the property. This will make supply of power to the site easy.
- The property is about 6Ha which is more than enough space to have the site for the proposed development within the property. Having such a large property also allows for flexibility in terms of exact position of the site.
- The slope/gradient of the site is favorable for the proposed development.
- The property being somewhat close to surrounding communities will allow for easier travel for community members employed during construction and operational phase.

#### Location of the site within the property

The location of the site within the property took into consideration the minimum distance from the closest residence required for a poultry farming site. Other factors considered include:

- Minimal removal of vegetation, there are patches of dense bush within the property, the preferred site has the least amount of trees with vegetation mainly being grass.
- Rock outcrops: there are some rock outcrops within much of the property, the site location is one of the few patches on the property with little to no rock outcrops.
- Gradient: the location of the preferred site has a gentle slope that will be easier to work on which will help reduce costs associated with the construction phase of the proposed development.

#### Type of activity undertaken

The Government has been encouraging South Africans and especially the youth to be more involved in Economic Agriculture.

*According to the National Development Plan (NDP), South Africa would like to reduce the unemployment rate to 6% by 2030. Currently the unemployment rate is 28%. Agriculture has the potential to create close to 1 million new jobs by 2030, which would be a significant contribution to the overall employment target. The youth make up the majority of the unemployed.-sagrainmag.co.za, July 2019.*

The representatives of Crossworld (Pty) Ltd that will be leading this project are young males who have grown the passion to take part in the type of activity proposed. Although the proposed development may mainly benefit the developer, it is also expected to have significant benefits for the local community especially through permanent employment and availability of eggs from the project at a lower price than it would normally cost when bought from town. As a result, the proposed development has received great support from Inkosi and his Traditional Council.

#### Design and layout of the activity

The design and layout of the proposed development took into consideration the requirements as set out within the South African Poultry Association's abridged code of practice. There were no alternatives considered due to financial constraints with the main aim to ensure that the proposed development is in compliance with applicable legislation and guidelines.

The design of the proposed development is unlikely to change with layout being the more flexible factor in terms of exact location of the houses within the property. It would however, not be feasible to place the proposed structures further south of the property as this would reduce the distance between the site and the nearest homestead.

#### Technology to be used by the activity

Basic construction machinery will be used during the construction phase including plant such as TLB, different trucks that will be delivering material to the site, vehicles that will be transporting staff to and from the site as well as hand-held tools such as drilling equipment. There were therefore no technology alternatives considered as those to be used are not known to have any excessive detrimental impacts on the environment.

The only alternative would be to have a generator as a backup to the Eskom power source.

#### No – go option



The no-go option took into consideration the outcomes/impacts of the proposed development considering both positive and negative impacts associated with construction and operation phase of the proposed development.

Although there may be some negative impacts during the two project phases, overall, the proposed development will have positive impacts with specific reference to the stimulation of local economic development that the proposed development is expected to have over time. With measures put in place and effectively implemented, the negative environmental impacts of the proposed development can be reduced to levels of low significance.

There is therefore more to be lost should the proposed development not be approved than would be gained if it was approved.

*ii. Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs*

The project has followed the standard public participation process as contemplated under Regulation 41 of the 2014 EIA Regulations, as outlined below.

- The Qadi Traditional Council was initially informed of the proposed development through the client with the Traditional Council pointing out to the described property as the available site / property that fits the requirements for the proposed development. A meeting was held on 14 October 2020 attended by the EAP, Qadi Traditional Council and Developer representatives. Minutes and attendance register of the said meeting are attached as **Appendix B (1)(i) and Appendix B (1)(ii)**. A letter confirming that the council is aware and in support of the proposed development has therefore been obtained from the council and can be found under **Appendix B (2)** as well.
- The project was advertised in iSiZulu Newspaper, Isolezwe dated 7 December 2020 – attached as **Appendix B (3)**.
- The Site Notices were erected on site – see **Appendix B (4)(i) and B (4)(ii)**.
- This is a draft Basic Assessment report being circulated to all stakeholders, Interested and Affected Parties (I&APs) and state department for commenting as part of the Public Participation Process. All comments received will be attached to and incorporated in the Final BAR and EMPr.

*iii. A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or reasons for not including them*

As this is the Draft BAR, the table below shows I&APs, stakeholders and state departments who have been given the opportunity to comment on the proposed development as well as the contact details of the main contact person. The summary of comments received will be given in the final BAR.

Table 3: Table showing identified stakeholders, I&APs and State Departments who will be consulted and given the opportunity to comment on the proposed development.

Name of Organisation/Department	Contact Person	Contact Details
Department of Economic Development, Tourism & Environmental Affairs	Mr Malcolm Moses	Corner of Link Road and R102, KwaDukuza, 4450
Ezemvelo KZN Wildlife	IEM Co-ordinator	P.O.Box 13053 Cascades 3202
KwaZulu – Natal Amafa and Research Institute	Ms. Bernadet Pawandiwa	195 Langalibalele Street, Pietermaritzburg, 3201
Department of Human Settlements, Water & Sanitation	Mr Neo Leburu	P.O.Box 1018 Durban. 4000
KZN Department of Transport	Ms Judy Reddy	224 Prince Alfred Street Pietermaritzburg 3200 Tel: 033 355 8600 judy.reddy@Kzntransport.gov.za
Ndwedwe Local Municipality	Mr D. Khuzwayo	Ndwedwe Local Municipality, P 100 Road, 4342 Tel: 032 532 5000 / 5114 Email: disco.khuzwayo@ndwedwe.gov.za
Ilembe District Municipality	Mr Linda Mncube	Ilembe House, 59/61 Mahtma Ghandi Street, KwaDukuza, 4450 Tel:032 437 9405/13 Email: linda.mncube@ilembe.gov.za
Department of Agriculture Forestry and Fisheries	Mr. A Mnyungula	185 Langalibalele Str. Pietermaritzburg 3200 Tel: 033 392 7729 E-mail: AyandaMny@daff.gov.za
ESKOM	Samantha Naicker	Durban
Department of Agriculture and Rural Development (DARD)	Mr. Petrus Mans	Disaster Management Building 1 Cedara Road Cedara Pietermaritzburg 3201 Office: 033 355 9639 Mobile: 082 302 7164

<p>eThekwini Municipality (Since the project is almost at the boarder of eThekwini Municipality, EDTEA (Ilembe District) had recommended that we include eThekwini Municipality as a commenting stakeholder. This was during a Pre – Application Meeting).</p>	<p>Bathabile Msomi / Michelle Lotz</p>	<p>Env. Dept. City Engineers Building Room 200, 2<sup>nd</sup> Floor 166 K.E. Masinga Road Durban 4000 Office: 031 311 7940 / 031 311 4262</p>
--	--	--

**iv. The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects**

**Geographical and Physical Attributes**

**Land Use Character**

Ogunjini Area is a rural area mainly characterized by residential developments and some sustenance farming. The site property that the proposed development will be positioned on is currently vacant with no existing structures on the property. The distance from the site to the nearest residence is about 500m.

**Climate**

The area that the site is located within is characterized by hot summers and mild winters. Rain in this area is mainly received in summer with some rain also received in winter.

During any summer season, some of the most common hazards that get identified include severe thunderstorms (that are often accompanied by heavy rainfall, lightning, strong winds and hail).

**Description of ecological baseline**

**Vegetation**

As can be seen in Figure 2 below, the site for the proposed development falls within CB3 (KwaZulu-Natal Coastal Belt) biome. This biome is described as characterized by highly dissected undulating coastal plains which are presumed to have previously been covered by various types of subtropical forest. Hilly, high-rainfall areas are dominated by *Themeda triandra* with these areas being primarily grassland.

Some species that are “typical” of areas within this biome include *Aristada junciformis*, *Acacia natalia*, *Syzigium cordatum*, *Phoenix reclinata* and *Alepidia longifolia* to name a few.

The site is located close to an indigenous forest patch (V1: Eastern Scarp Forests) as per Indigenous forest patches (DAAF). This forest patch does exist on the ground and is located on a cliff to the western side of the site. The proposed development is not expected to have any impacts on this forest. In any event the cliff is not readily accessible and cannot be developed.

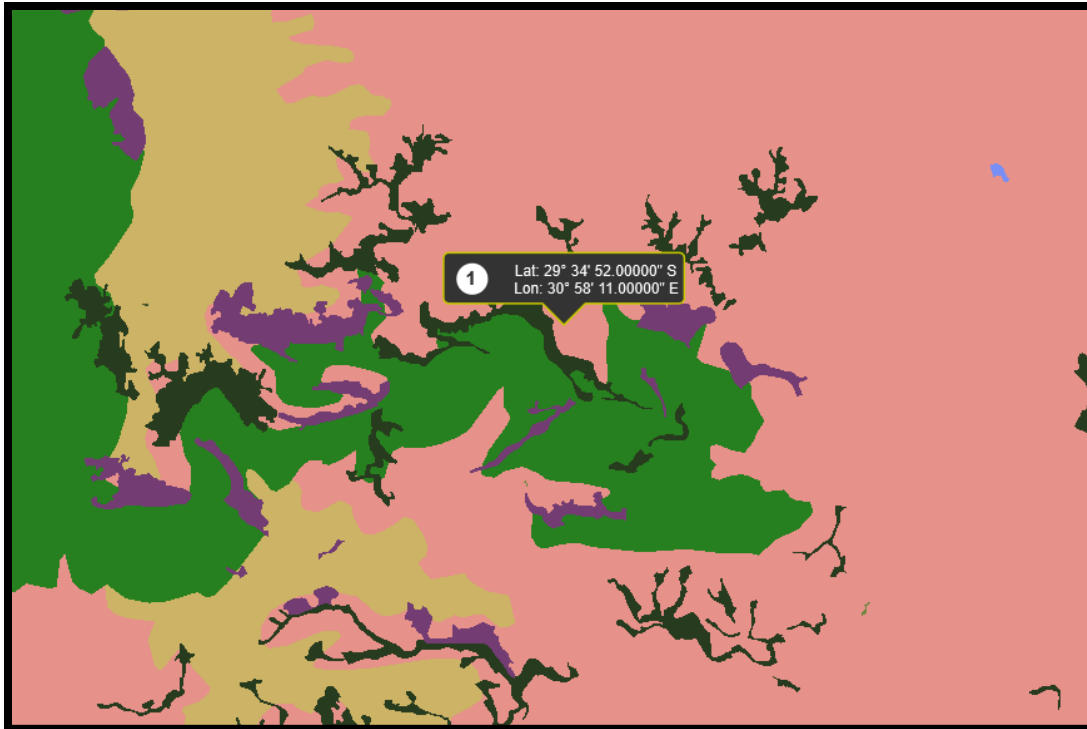


Figure 2: Image showing position of the site on the SANBI KZN Landscape and Veld Type Map.



Figure 3: Image showing some conservation features within locality of the site with the Eastern Scarp Forest highlighted in blue polygon.

The site of the proposed development has been chosen such that, there is little removal of trees. Some of the vegetation on and around the site that may be affected by the proposed development include Acacia, Ferns, Palm Tree, Guava Trees and Lantana. Any indigenous tree species removed will be replaced on project completion.





Figure 4: Images showing some of the vegetation observed near/within the proposed preferred site.

#### **Fauna**

Although there are different animal species that may be expected to be present on the site based on the biome it falls within and any other desktop information, on site assessment conducted did not show any evidence of animal life on the site except for some birds which were heard calling mainly from the forest patch near the site.

There were a few animal prints seen which were mainly cow prints which is an understandable observation as cows are some of the animals that are farmed by locals as part of sustenance farming.

#### **Soil and Geology**

Soil profile for the site area can be generally described as soils with minimal development, usually shallow, on hard or weathering rock, with or without intermittent diverse soils. Lime rare or absent in the landscape. The soils are imperfectly drained and often with a plinthic horizon.

There are numerous rock outcrops within the property of the proposed development.

#### **Groundwater and Wetlands / Hydrology**

There are no watercourses within the immediate surrounding of the site for the proposed development. Mloti River and associated watercourses are located more than 500m away from the proposed site. To add to the distance factor, there is a cliff that is between the site and the river and wetlands as can be seen under **Figure 1** above.

Therefore, considering the scope of works for the proposed development and the distance to the watercourses, the river and wetlands are not expected to be affected by the proposed development.

The water table within the area allows for the abstraction of water through a borehole hence the proposal to use a borehole as the water source for the proposed project.

### **Social attributes**

Ogunjini area is located within Ward 13 of the Ndwedwe Local Municipality. It is a rural area that is dominated by black Zulu speaking people. It is under the traditional leadership of the Qadi Traditional Council which is led by Inkosi M.B. Ngcobo. Like many other areas within the Municipality, it is characterized by high unemployment rates with some community members engaging in sustenance farming.

### **Economic attributes**

There are a few economic activities within the Ogunjini area with some local shops located close to the site. There is however, lack of significant economic activity that would benefit the local community with some locals relying on selling some of their livestock for income. With a high number of people being illiterate, unemployment rates is also high.

### **Heritage, historical features and cultural aspects**



Figure 5: Image showing general view of a portion of the site.

As can be seen in the image above (**Figure 4**), there are not existing buildings or structures on the site. There were also no evident grave/burial sites observed on the site. Members of the Traditional Council involved in selection of the site have good knowledge of the background of the site and have not made any indication that there could have previously been graves located on the site or the property.

Although there are no heritage features visible on the site, steps to be taken should any be uncovered have been included in the draft EMPr. In addition comments from KwaZulu – Natal Amafa and Research Institute will be sought in the form of formal comments.

- v. ***The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts –***

*(aa) can be reversed*

The impacts associated with the proposed development cannot be reversed unless the project is decommissioned which is not expected to happen. However, the impacts can be reduced and compensated for as indicated in the impact statement/assessment table below. For example: the removal of vegetation may include removal of indigenous trees but such trees can be transplanted prior to the commencement of construction activities, and replanted on project completion.

*(bb) may cause irreplaceable loss of resources*

There is no irreplaceable loss of resources expected to occur as a result of the proposed development. Mitigation measures will provide for the avoidance, reduction and remediation of impacts to ensure that the overall integrity of the surrounding environment is preserved to allow for continued ecosystem functionality.

*(cc) can be avoided, managed or mitigated*

Some impacts can be avoided such as avoiding removal of identified indigenous vegetation with most impacts to be managed and mitigated with implementation of measures to ensure that such impacts are minimal and or compensated for.

#### Details of the impact rating tools

The table below shows the table of the impact significance rating scale that was used for assessing the impacts associated with the proposed development. The guidelines for the impact assessment process applied in compiling this document are outlined within Appendix 1 of the EIA regulations 2014, under which the requirements and objectives for a satisfactory manner to conduct an impact assessment process are outlined.

Table 4: Table showing significance rating scale.

Scoring Value	Significance
>35	<b>High</b> – <b>The impact is total / consuming / eliminating</b> – In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time-consuming or some combination of these. Social, cultural and economic activities of communities are disrupted to such an



	extent that these come to a halt. Mitigation may not be possible / practical. Consider a potentially fatal flow in the project.
25-35	<b>High – The impact is profound</b> – In the case of adverse impacts, there are few opportunities for mitigation that could offset the impact, or mitigation has a limited effect on the impact. Social, cultural and economic activities of communities are disrupted to such an extent that their operation is severely impeded. Mitigation may not be possible / practical. Consider a potential fatal flaw in the project.
20-25	<b>Medium – The impact is considerate / substantial</b> – The impact is of great importance. Failure to mitigate with the objective of reducing the impact to acceptable levels could render the entire project option or entire project proposal unacceptable. Mitigation is therefore essential.
7-20	<b>Medium - The impact is material / important to investigate</b> – The impact is of importance and is therefore considered to have a substantial impact. Mitigation is required to reduce the negative impacts and such impacts need to be evaluated carefully.
4-7	<b>Low – The impact is marginal / slight / minor</b> – The impact is of little importance, but may require limited mitigation; or it may be rendered acceptable in the light of proposed mitigation.
0-4	<b>Very Low – The impact is unimportant / inconsequential / indiscernible</b> – no mitigation required, or it may be rendered acceptable in light or proposed mitigation.

The significance ratings given in the table above took into consideration different factors such as extent of impact, nature of impact and duration of impact.

These are explained in the sections below.

**Nature**

Herewith impacts are classified as either direct, indirect or cumulative.

- **Direct impacts:** impacts usually caused from activities carried out on site that can only be monitored to be carried out within certain confines but cannot at all be avoided, i.e. clearing of vegetation to mark a road reserve in an area populated with vegetation.
- **Indirect impacts:** secondary impacts resulting from direct impacts, i.e. erosion resulting from destabilised soils due to clearing of vegetation.
- **Cumulative impacts:** impacts which could result during the life cycle of the project as a result of one or two impacts that are usually unnoticed as single elements of such.

**Extent**

The extent is associated with the geographic extent of the impact including physical and spatial scale of the impact.

Table 5: Table showing extent rating scale.

Rating	Extent Scale
7	<b>International</b> - The impacted area extends beyond national boundaries.
6	<b>National</b> – The impacted area extends beyond provincial boundaries.
5	<b>Ecosystem</b> – The impact could affect areas essentially linked to the site in terms of significantly impacting ecosystem functioning.
4	<b>Regional</b> – The impact could affect the site including the neighbouring areas, transport routes and surrounding towns e.g. at the KZN Provincial level.
3	<b>Landscape</b> – The impact could affect all areas generally visible to the naked eye, as well as those areas essentially linked to the site in terms of ecosystem functioning.
2	<b>Local</b> – The impacted area extends slightly further than the actual physical disturbance footprint and could affect the whole, or a measurable portion of adjacent areas. Normally within a radius of 2 km from the site.
1	<b>Site Related</b> – This is an impact within the boundaries of the construction site or the development footprint. The loss is considered inconsequential in terms of the spatial context of the relevant environmental or social aspect.

### ***Intensity/Magnitude***

This provides a qualitative assessment of the severity of a predicted impact. Below are some of the standard terms used in assessment relating to this indicator.

Table 6: Table showing magnitude rating scale.

Rating	Magnitude Scale
7	<b>Total / eliminating</b> – Function or process of the affected environment is altered to the extent that it is permanently changed.
6	<b>Profound / considerate / substantial</b> – Function or process of the affected environment is altered to the extent where it is permanently modified to an extent of temporal cease.
5	<b>Material / important</b> – The affected environment is altered, but function and process continue, albeit in a modified way.
4	<b>Discernible / noticeable</b> – Function or process of the affected environment is altered to the extent where it is temporarily altered, be it in a positive or negative manner.
3	<b>Marginal / slight / minor</b> – The affected environment is altered, but natural function and process continue.

<b>2</b>	<b>Unimportant / inconsequential / indiscernible</b> – The impact temporarily alters the affected environment in such a way that the natural processes or functions are negligibly affected.
<b>1</b>	This is where there will be no impact on the environment.

### Irreplaceability / Loss of resources

Environmental resources cannot always be replaced; once destroyed, some may be lost forever. It may be possible to replace, compensate or reconstruct a lost resource in some case. The loss of a resource may become more serious later, and the assessment must take this into account. Below are some of the standard terms used in assessment relating to duration.

Table 7: Table showing irreplaceability scale.

<b>Rating</b>	<b>Irreplaceability/Resource Loss Scale</b>
<b>6</b>	<b>Permanent</b> – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, or by artificial means.
<b>5</b>	<b>Long term</b> – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, but can be mitigated by other means.
<b>4</b>	<b>Loss of an ‘at risk’ resource</b> – one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria, but cumulative effects may render such loss as significant.
<b>3</b>	<b>Medium term</b> – The resource can be recovered within the lifespan of the project. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span between 5 and 15 years.
<b>2</b>	<b>Loss of an ‘expendable’ resource</b> - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria.
<b>1</b>	<b>Short-term</b> – Quickly recoverable. Less than the project lifespan. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span shorter than any of the project phases, or in a time span of 0 to 5 years.

### Reversibility

The distinction between reversible and irreversible impact is a very important one and the irreversible impacts not susceptible to mitigation can constitute significant impacts in an EIA process. The potential for rehabilitation is the major determinant factor when considering the temporal scale of most predicted impacts. Below are some of the standard terms used in assessment relating to reversibility.

Table 8: Table showing impact reversibility scale.

Rating	Reversibility Scale
7	<b>Long term</b> – The impact will never be returned to its original or benchmark state. The impact cannot be reversed.
3	<b>Medium term</b> – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than the lifetime of the project, or in a time span between 5 and 15 years.
1	<b>Short term</b> – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than any of the phases of the project, or in a time span of 0 to 5 years.

### Probability

The assessment of the probability / likelihood of an impact / effect has been undertaken in accordance with ratings and descriptors provided below.

Table 9: Table showing impact probability scale.

Rating	Probability Scale
1.0	Absolute certainty / will occur
0.9	Never certainty / very high probability
0.7-0.8	High probability / to be expected
0.4-0.6	Medium probability / strongly anticipated
0.3	Low probability / anticipated
0.2	Possibility
0.0-0.1	Remote possibility / unlikely

- vi. The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives**

The factors and ranking scales indicated above were used for the assessment of potential impacts considering the scope of works and environment within and around the preferred site as this is the only site being considered thus far for this application.

- vii. Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects**

#### *Positive impacts of the activity*

The main positive impact from the proposed development is its contribution to socio-economic benefit that the proposed development will have for the community of the Ogunjini Area. Crossworld (Pty) Ltd

will also grow in experience and in business which will create opportunity for them to go into other business ventures with more employment opportunities to be created.

*Negative impacts of the activity*

There are some negative impacts that can be associated with the proposed development. These including habitat loss mainly for birds with tree cutting, soil erosion with soil being exposed as a result of vegetation removal and odor and health risks associated with improper handling of waste during the operational phase. Odour emissions, caused by a large number of contributing compounds including ammonia (NH<sub>3</sub>), Volatile Organic Compounds and Hydrogen Sulphide (H<sub>2</sub>S) can adversely affect the lives of people living in vicinity of the site. Flies are an additional concern for residents living near poultry facilities.

The negative impacts from the project will be mitigated against to reduce them to minimal levels and cancel possible impacts on the surrounding environment and community. Should the Environmental Authorisation be issued, it will include strict conditions that the Developer must adhere to with the conditions formulated in consideration of the Environmental Impact Assessment conducted and associated comments and recommendations from specialist studies conducted and comments from State Departments contacted during the Public Participation Process.

**Impacts identified for the preferred site**

Impacts that can be associated with the proposed development considering the scope of work, site and receiving environment are listed below. These are the impacts identified thus far with the list to be refined throughout the Basic Assessment Process.

- Vegetation Removal
- Soil Erosion
- Pollution
- Soil Contamination
- Nuisance: Noise and dust
- Spread of Alien Plants
- Odour
- Visual impact
- Groundwater contamination
- Socio-Economic
- Health and Safety

The EIA Regulations, 2014 as amended stipulates requirements that need to be adhered to and objectives to be reached when undertaking environmental impact assessment. Key to a successful EIA is the accurate identification of environmental and social impacts and the subsequent assessment of the likely significance of each impact. This will assist in facilitating the prioritization of impacts, the identification of fatal flaws and the identification of mitigation measures.

*viii. An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures*

Impact/Risk	Description/Significance	Mitigation
-------------	--------------------------	------------

<p>Vegetation Removal</p>	<ul style="list-style-type: none"> <li>• Some clearance of vegetation is required for the establishment of structures such as chicken houses and access into site.</li> <li>• To mainly consist of grass but may include some tree species.</li> </ul>	<ul style="list-style-type: none"> <li>• Layout of the structures within the site must be such that tree removal is avoided as much as possible especially in terms of indigenous trees.</li> <li>• Access to the site during the construction phase must be designated and no haphazard movement of vehicles must be allowed around the site.</li> <li>• Areas that have been disturbed during the construction phase which are not engineered, must be re-vegetated upon completion of construction works.</li> <li>• Although the forest on the cliff is not expected to be affected, the Developer must additionally ensure that all activities are kept at least 30m away from it.</li> </ul>
<p>Soil Erosion</p>	<ul style="list-style-type: none"> <li>• Soil erosion may result from soil being exposed through removal of vegetative cover and loosening through earthworks.</li> <li>• Where exposed areas are left exposed for an extended period of time, this would increase the levels of erosion through wind but mostly through runoff.</li> </ul>	<ul style="list-style-type: none"> <li>• Vegetation removal must be kept minimal.</li> <li>• Stormwater management must be such that exposed surfaces are not excessively eroded by run-off.</li> <li>• Where vegetation is removed for construction purposes, exposed surfaces must be developed as soon as possible to reduce the amount of time that they are left exposed and vulnerable to erosion.</li> </ul>
<p>Pollution</p>	<ul style="list-style-type: none"> <li>• Pollution during the construction phase will mainly be from mismanagement of construction and general waste.</li> <li>• How waste such as feathers, general waste and mortality birds is dealt with and disposed of may result in pollution during the operational phase which will be more significant than waste from construction phase.</li> </ul>	<ul style="list-style-type: none"> <li>• Wind and scavenger proof containers must be made available and used for on-site waste storage.</li> <li>• Waste from containers must regularly be disposed of at the nearest landfill site that is permitted to handle and dispose of such waste.</li> <li>• Waste disposal certificates/waybills must be kept on file as proof of safe waste disposal.</li> <li>• Workers must be trained to exercise environmentally friendly including proper disposal of waste.</li> <li>• The Developer must submit a waste management plan for the operational phase which will form a part of the final EMPr and therefore be part of the conditions for the EA is one is granted.</li> </ul>
<p>Soil Contamination</p>	<ul style="list-style-type: none"> <li>• Soil contamination during the construction phase may result from handling and storage of fuel on site and condition of vehicles/plant such as leaking.</li> </ul>	<ul style="list-style-type: none"> <li>• Fuel must be stored on impermeable surfaces.</li> <li>• Bulk fuel must be stored on bunded area with the capacity to contain the contents of fuel stored on it.</li> </ul>

	<ul style="list-style-type: none"> <li>Mixing of concrete on bare surfaces can also cause soil contamination.</li> <li>Storage and handling of fuel on site can also potentially cause soil contamination during the operational phase.</li> <li>Storage of feathers and dead birds during the operational phase can lead to contamination of soil during the operational phase within the waste storage area.</li> </ul>	<ul style="list-style-type: none"> <li>If any concrete mixing takes place on the site, the concrete must be mixed on mixing trays or similar surfaces.</li> <li>Responsible waste handling and disposal is very important during the operational phase as it is the main risk for many impacts that could possibly occur.</li> </ul>
Nuisance: Noise and dust	<ul style="list-style-type: none"> <li>Noise may be from construction vehicles, workers and construction works.</li> <li>Dust will be as a result of earthworks and use of gravel road by construction vehicles.</li> <li>Similar impacts are possible for the operational phase of the proposed development.</li> </ul>	<ul style="list-style-type: none"> <li>The distance of the site from the nearest residence will mainly mitigate this impact in terms of noise and dust emanating from the site.</li> <li>Additionally: unnecessary noise from the site must be avoided during both the construction and operational phase.</li> <li>Slow speeds must be adhered to on the gravel road by all construction vehicles as per recommended speed limits for such roads.</li> <li>No loud music must be allowed on the site during the construction phase.</li> </ul>
Spread of Alien Plants	<ul style="list-style-type: none"> <li>Where exposed surfaces are left undeveloped for an extended period of time, this will give opportunity for alien plants to proliferate on such areas.</li> <li>Eating fruits and throwing away the remains around the site can also lead to the establishment and spread of alien plant species.</li> <li>Disposal of feed waste/remains can also cause this impact around the site.</li> </ul>	<ul style="list-style-type: none"> <li>Alien plant eradication must take place for as long as there are exposed surfaces.</li> <li>Re-vegetation with indigenous grass must take place as soon as possible post-construction.</li> <li>Environmental induction must be made part of training for all workers on site during both the construction and operational phase and the issue of alien plants must be covered in these talks.</li> <li>Feed waste may not be disposed of on or around the site. The Developer must ensure that such and all other waste forms are disposed of in a manner that does not culminate in any environmental harm/degradation.</li> </ul>
Odour	<p>Odour may potentially result from the operational phase from compounds being released from manure and waste storage facility.</p>	<ul style="list-style-type: none"> <li>Mortality birds must be properly disposed of and not kept on site for lengthy periods of time.</li> <li>Manure handling must be according to standard practice and guidelines to avoid negative impacts on surrounding environment.</li> </ul>

Visual impact	The development may cause visual impacts where activities cause a noticeable change to the general appearance /feel of the area.	This impact is mitigated by the distance of the site from closest neighbor. Further action may be taken to preserve the appearance of the area including retaining of vegetation to surround the proposed facilities.
Groundwater contamination	Groundwater contamination may occur where there is decay within the waste storage area and liquid from the decay seeps into the ground around the waste storage area.	Waste must be regularly disposed of especially in terms of feathers, feed, dead birds and perhaps spoiled eggs. Such waste must be collected and disposed of more regularly during the summer months.
Health and Safety	<ul style="list-style-type: none"> <li>• Use of vehicles and plant during the construction phase may pose injury risk with accident possibilities.</li> <li>• Health risk may potentially arise for local community as well as workers if odour from the site is not eliminated where emitted compounds can harm the health of those who inhale them.</li> </ul>	<ul style="list-style-type: none"> <li>• Only workers that have necessary skills and experience may be permitted to operate plant, machinery and vehicles.</li> <li>• The impact on health is not expected to occur as the nearest resident is about 500m from site of the proposed development. However; this hinges on the Developer ensuring compliance to waste management requirements for a facility of this nature.</li> </ul>
Socio-Economic	<ul style="list-style-type: none"> <li>• Employment opportunities will be created for locals during the construction and operational phase of the proposed development.</li> <li>• The existence of the facility may attract other developments to the area including businesses and improvement of infrastructure such as roads and crossings.</li> </ul>	<ul style="list-style-type: none"> <li>• Terms of employment must be clearly explained to all workers during the different phases of the proposed development.</li> <li>• The Contractor and developer must avoid making promises to the community especially those that will be hard to keep.</li> <li>• The Contractor and Developer must consider diving some form of certification to workers for the skills they displayed during their employment period.</li> <li>• At any stage appropriate, the developer may contribute to a community project such as development of a crèche.</li> </ul>

*ix. The possible mitigation measures that could be applied and level of residual risk*

In the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact. The significance of environmental impacts has therefore been assessed considering any proposed mitigation measures.

- Where possible, the components of the project structures must be positioned in such that less trees are affected during the construction phase.



- Where trees need to be removed, the appointed Environmental Control Officer must be engaged to ensure that the correct procedure is followed for removal of indigenous trees.
- Unnecessary vegetation removal must be avoided through:
  - Clearly marking the site boundaries prior to the commencement of construction activities.
  - Areas beyond the site and construction area must be regarded as no-go zones especially where there is dense vegetation.
  - Access to the site for Construction vehicles must be designated and no construction vehicles should be allowed to access the site in any other way than the designated access.
- Erosion control measures must be implemented such as channeling water away from exposed areas, supporting bottom of stockpiled material/soil with sand bags or bricks or alternatively covering stockpiled material to protect from rain and taking all the steps necessary to ensure that exposed surfaces are worked on as quickly as possible and not left bare for an extended period of time.
- All waste produced during the construction phase including rubble and general waste must be collected and disposed of at the nearest approved waste dumping site. Waste management must also be implemented during the operational phase.
- All hazardous substances must be stored on an impermeable surface during both construction and operational phase. Concrete mixing must take place on mixing boards or on liner. Should any large amount of fuel be kept on site, the fuel must be kept on a properly established bunded area with the capacity to store/hold the contents of the container(s) placed on it.
- Although the closest property to the site is about 450m away, noise control measures must be implemented. Dust should not be much of a problem but considering that the road leading to the site is gravel road, low travel speeds must be kept to at all times.
- All areas that are not engineered which were cleared during the construction phase must be re-vegetated/grassed. Alien plant eradication must take place within and around the site during construction and operational phase.
- Odor and flies can be controlled by minimizing the surface of manure in contact with air – frequent collection of litter (once a week in dry seasons and twice a week in rainy seasons), closed storage (bags or closed sheds).
- Proper management of manure and any litter during the operational phase will be crucial to avoiding/minimizing impacts on groundwater quality.
- As many people as possible must be employed from the local community during both construction and operational phase. Where possible some form of certification of skills displayed must be given to the workers which could assist in obtaining other employment.
- Workers must be provided with the necessary safety equipment for tasks to be conducted during both the construction and operational phase.

Table 10: Impact Assessment for Potential Impacts

Impact and Risk		Magnitude	Duration	Extent	Reversibility	Irreplaceability/Loss of Resource	Probability	Significance	Mitigation
Vegetation Removal	Without Mitigation	3 Marginal	3 Medium Term	3 Landscape Related	3 Medium Term	4 Loss of an "at risk" source	1.0 Absolute Certainty	16 Medium	Vegetation Removal is absolutely necessary for the proposed development. Significance of the impact can be reduced by: <ul style="list-style-type: none"> <li>Minimizing space cleared by retaining vegetation and controlling movement of machinery/plant on and around the site.</li> <li>Re-vegetation of all bare space not post-construction.</li> <li>Transplanting species of conservation/biodiversity importance prior to commencement of construction activities.</li> </ul>
	With Mitigation	2 Unimportant	1 Short Term	1 Site Related	1 Short Term	2 Loss of an 'expendable' resource	1.0 Absolute Certainty	7 Medium	
Soil Erosion	Without Mitigation	3 Marginal	1 Short Term	2 Local	1 Short Term	2 Loss of an 'expendable' resource	1.0 Absolute Certainty	9 Medium	<ul style="list-style-type: none"> <li>Retaining of natural vegetation on site.</li> <li>Re-vegetation of exposed areas.</li> <li>Stormwater management to reduce its erosion potential.</li> </ul>
	With Mitigation	2 Unimportant	1 Short Term	1 Site Related	1 Short term	1 Short Term	0.2 Possibility	1.2 Very Low	
Pollution	Without Mitigation	5 Important	3 Medium Term	2 Local	3 Medium Term	4 Loss of an "at risk" source	0.9	15.3 Medium	This impact can have devastating impacts to the environment on and around

**DRAFT BASIC ASSESSMENT REPORT FOR OGUNJINI POULTRY PROJECT V01**

	With Mitigation	1 No Impact	0	1 Site Related	0 No impact	0 No Loss	0	0 Very Low	<p>the site if it does occur. It is however unlikely that it will occur with implementation of a proper waste management plan for both construction and operational phase.</p> <ul style="list-style-type: none"> <li>• Formulating of waste management plan prior to the commencement of either phase with strict implementation.</li> <li>• Use of wind and scavenger proof waste disposal containers.</li> <li>• Regular waste removal from site storage area and disposal at landfill and other appropriate facilities.</li> </ul>
Impact and Risk		Magnitude	Duration	Extent	Reversibility	Irreplaceability/Loss of Resource	Probability	Significance	Mitigation
Soil Contamination	Without Mitigation	3 Marginal	3 Medium Term	1 Site Related	1 Short Term	1 Short Term	0.5 Medium Probability	4.5 Low	<ul style="list-style-type: none"> <li>• Use of bunded area for bulk fuel storage.</li> <li>• Fuel and other possible contaminants to be placed on impermeable surfaces/liners.</li> <li>• Use of drip trays.</li> <li>• Provision and use of spill kit.</li> <li>• Use of mixing trays for concrete mixing.</li> </ul>
	With Mitigation	1 No Impact	1 Short Term	1 Site Related	0 No Impact	0 No Impact	0.0 No Impact	0 None/insignificant	
Nuisance: Noise and dust	Without Mitigation	3 Marginal	3	2 Local	1 Short Term	0 No Loss of Resource	1.0 Definitely	9 Medium	

**DRAFT BASIC ASSESSMENT REPORT FOR OGUNJINI POULTRY PROJECT V01**

			Medium Term						<ul style="list-style-type: none"> <li>Dust suppression measures must be implemented.</li> <li>Noise levels to be minimized at all times.</li> <li>No unnecessary noise to be emitted.</li> </ul>
	With Mitigation	2 Unimportant	1 Short Term	1 Site	1 Short Term	0 No Loss of Resource	0.5 Medium Probability	2.5 Very Low	
<b>Impact and Risk</b>		<b>Magnitude</b>	<b>Duration</b>	<b>Extent</b>	<b>Reversibility</b>	<b>Irreplaceability/Loss of Resource</b>	<b>Probability</b>	<b>Significance</b>	<b>Mitigation</b>
Spread of Alien Plants	Without Mitigation	4 Discernible	3 Medium Term	3 Landscape	3 Medium Term	3 Medium Term	0.9 Very High Probability	14.4 Medium	<ul style="list-style-type: none"> <li>Exposed surfaces to be promptly re-vegetated.</li> <li>Alien plant eradication to take place where alien growth of alien plant species is observed.</li> </ul>
	With Mitigation	1 No Impact	1 Short Term	1 Site Related	1 Short Term	1 Short Term	0.3 Low Probability	1.5 Very Low	
Odour	Without Mitigation	3 Marginal	3 Medium Term	2 Local	3 Medium Term	1 Short Term	1.0 Definitely	12 Medium	<ul style="list-style-type: none"> <li>Waste to be regularly disposed of.</li> <li>Manure handling processes applicable must be strictly implemented.</li> </ul>
	With Mitigation	1 No Impact	1 Short Term	1 Site Related	1 Short Term	0 None	0	0 Very Low	
Visual Impact	Without Mitigation	2 Unimportant	1 Short Term	2 Local	1 Short Term	0 No Loss of Resource	0.2 Possibility	1.2 Very Low	<ul style="list-style-type: none"> <li>Distance of site from neighbors is already a mitigating factor.</li> <li>Control development and disturbance to reduce disturbance of general appearance of the area.</li> </ul>
	With Mitigation	1 No Impact	1 Short Term	1 Site Related	1 Short Term	0 No Loss of Resource	0.1 Unlikely	0.4 Very Low	
Groundwater Contamination	Without Mitigation	4 Discernible	3 Medium Term	1 Site Related	3 Medium Term	3 Medium Term	1.0 Definitely	14 Medium	<ul style="list-style-type: none"> <li>Hazardous substances to be placed on impermeable surfaces.</li> <li>Supply and use of drip trays.</li> </ul>
	With Mitigation	1 No Impact	1	1	1 Short Term	1 Short Term	0.2 Possibility	1 Very Low	

DRAFT BASIC ASSESSMENT REPORT FOR OGUNJINI POULTRY PROJECT V01

Impact and Risk	Magnitude	Duration	Extent	Reversibility	Irreplaceability/Loss of Resource	Probability	Significance	Mitigation	
Health and Safety	Without Mitigation	7 Total	3 Medium	2 Local	7 Long Term	7 Permanent	0.8 High Probability	20.8 Medium	<ul style="list-style-type: none"> <li>• Proper set up of waste storage area to ensure that no liquids leak into the ground on or around the waste storage area.</li> <li>•</li> </ul>
	With Mitigation	1 No Impact	1 Short Term	1 Site Related	1 Short Term	1 Short Term	0 None	0 Very Low	<p>Although this impact is only rated as medium, its significance in actual fact is much higher if it occurs. Any accident on or near the site connected with the proposed development may cause loss of life or irreversible bodily harm.</p> <p>Emitted compounds from the site could also have significant health impacts.</p> <ul style="list-style-type: none"> <li>• All workers must be provided with the necessary PPE during all phases of the proposed development.</li> <li>• All construction vehicle drivers must follow road safety rules.</li> <li>• Extra caution must be exercised during times where there are school children on roads leading to the site.</li> </ul>

DRAFT BASIC ASSESSMENT REPORT FOR OGUNJINI POULTRY PROJECT V01

Socio-Economic	Without Mitigation	6 Profound	7 Long Term	2 Local	7 Long Term	0 No Loss of Resource	1.0 Definitely	22 Medium	<p>This is a positive impact and therefore; there are no mitigation measures required. Measures stated are maximization of the benefits.</p> <ul style="list-style-type: none"> <li>• Employment terms including remuneration must be explained to all employed.</li> <li>• Where possible, the Contractor/Developer may give some form of certification to workers for skills displayed during employment period.</li> <li>• Some of the employed individuals may be taken for training for skills such as administration of CPR.</li> </ul>
	With Mitigation	6 Profound	7 Long Term	4 Regional	7 Long Term	0 No Loss of Resource	1.0 Definitely	24 Medium	

**Impact Significance**

Considering the table above, the average significance of potential impacts of the proposed development without mitigation is **Medium** and the average significance when considering implementation of mitigation measures is **Very Low**. It is therefore important that the implementation of the proposed development is closely monitored to assess and monitor compliance levels on the site and take necessary measures if compliance is not at satisfactory levels to successfully mitigate against potential impacts.

Average Impact Significance Without Mitigation	11.62 Medium
Average Impact Significance With Mitigation	3.42 Very Low

All impacts identified can be mitigated against with no irreversible damage to be caused to the environment or community. There is also no anticipated loss of any replaceable resource. Therefore, the socio-economic benefits of the proposed development outweigh the potential environmental impacts.

- I. WHERE APPLICABLE, A SUMMARY OF THE FINDINGS AND IMPACT MANAGEMENT MEASURES IDENTIFIED IN ANY SPECIALISTS REPORT COMPLYING WITH APPENDIX 6 TO THESE REGULATIONS AND AN INDICATION AS TO HOW THESE FINDINGS AND RECOMMENDATION WILL BE INCLUDED IN THE FINAL REPORT; -

The following are the specialist studies that will be conducted for the proposed development. Where applicable, reasons have been given for not undertaking certain specialist studies which had been recommended as per the pre-application screening tool.

**Landscape/Visual Impact Assessment**

The proposed development is located away from surrounding community due to its nature and requirements for poultry farming activities. The vegetation on the property and around the site will be retained throughout the project cycle.

Therefore, the EAP is of the view that there will be no significant visual impacts to warrant involvement of landscape/visual impact specialist assessment.

**Archaeological and Cultural Heritage Impact Assessment and Paleontology Impact Assessment**

The site is not located in proximity of any heritage/paleontological site. There are no visual heritage resources or features on or near the site such as graves.

Therefore; the project is not anticipated to have any Archaeological, Cultural Heritage or Paleontological impacts. Therefore, this specialist assessment is not seen as necessary for the proposed development.

However; Amafa will be contacted for comment and should they recommend that such study be undertaken, the EAP will ensure that it is done, and outcomes are included in the final BAR.

**Terrestrial Biodiversity Impact Assessment**

This assessment will be undertaken with focus on assessment of plant species. This is due to the assessment undertaken by the EAP which has shown that the site is generally located within the KZN Coastal Belt Grassland which is listed as Threatened. There is also a forest patch close to the site which is of conservation importance.

There was no indication of any animal life on the site except for prints believed to be from cows and other live stock which probably graze on the site. However, should there be any animal life on the site/forest, this will be indicated in the biodiversity assessment.

**Aquatic Biodiversity Impact Assessment**

uMdloti River is located at a distance of over 500m from the site. However; the nature of the site, proposed development and surrounding environment is such that the river and all aquatic life will definitely not be affected by the proposed development especially where best practice measures are implemented. Moreover, there is a buffer between the site and the river in the form of a cliff.

The main way that the river would be affected would be if waste is disposed of by the river which is very unlikely to occur.

Therefore, an aquatic assessment is not seen as necessary.

**Avian Impact Assessment**

To be briefly covered in the biodiversity assessment.

**Feasibility / Socio-Economic Impact Assessment**

The Business Plan presented to the EAP for funding showed the project to be feasible. However, the applicant has been encouraged to conduct a socio economic assessment.

**Plant Species Assessment**

To be covered in the biodiversity assessment.

**Animal Species Assessment**

Not seen as necessary due to lack of evidence of animal life but will be undertaken if animal life is discovered during the biodiversity assessment.

All outcomes from the specialist assessments to be conducted will be incorporated into the final BAR and EMPr. Outcomes of the assessments will be used to:-

- Enrich the description of the receiving environment;
- Will influence the final layout and design to be presented with the final BAR,
- Recommendations of the specialists to form part of final BAR and EMPr including recommended mitigation measures and identified potential impacts and
- Summaries of all impact assessments conducted will be included in the final BAR.

**J. AN ENVIRONMENTAL STATEMENT WHICH CONTAINS-**

**(i) A summary of the key findings of the environmental impact assessment;**

There are some significant impacts that could result from the proposed development mainly removal of vegetation including indigenous vegetation, health and safety impacts especially health impacts linked with the operational phase and pollution/ground water contamination. However; the significance of these impacts can be reduced to insignificant through implementation of mitigation measures. Recommendations from specialist assessments will also have to be conducted.

Therefore, adherence to recommendations and guidelines in the EA if one is issued and associated EMPr will be of critical importance to the success of the proposed development from risks/environmental point of view.

**(ii) A map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffer**



This map will be formulated once specialists' studies are conducted as it needs to factor in findings of the specialist assessments. It will be attached under **Appendix A** of the final BAR.

*(iii) A summary of the positive and negative impacts and risks of the proposed activity and identified alternatives*

*Positive implications of the activity*

The proposed development will create ±25 employment opportunities during the construction phase and ±20 employment opportunities during the operational phase. The local community will benefit through the employment created especially during the operational phase where employment will be on a permanent basis. Some managerial positions may also be offered to locals where they have the necessary skills and/or experience required for position.

The proposed development is likely to stimulate other economic activities within the Ogunjini Area.

*Negative implications of the activity*

With the implementation of mitigation measures, none of the anticipated negative impacts will occur at significant levels. Impacts connected with waste management, health and safety and pollution may have devastating impacts if not managed accordingly especially as the proposed development will most likely not be closely monitored for the operational phase.

It is therefore very important that the need for compliance is clearly highlighted to the Developer and actions which could be taken against the Developer for failing to comply must also be brought to the Developer's attention.

**K. BASED ON THE ASSESSMENT, AND WHERE APPLICABLE, IMPACT MANAGEMENT MEASURES FROM SPECIALISTS REPORTS, THE RECORDING OF THE PROPOSED IMPACT MANAGEMENT OUTCOMES FOR THE DEVELOPMENT FOR INCLUSION IN THE EMPr**

Specialist assessment have not been undertaken thus far. All recommendations from specialist studies will be included in the final BAR and EMPr.

**L. ANY ASPECTS WHICH WERE CONDITIONAL TO THE FINDINGS OF THE ASSESSMENT EITHER BY THE EAP OR SPECIALIST WHICH ARE TO BE INCLUDED AS CONDITIONS OF AUTHORISATION**

The environmental impacts that could have significant impacts to the receiving environment are closely linked with the Waste Management on site during the operational phase especially for feathers, mortality birds and manure. Therefore, strict conditions must be included in the conditions of the EA for waste management including frequency of waste disposal.

**M. A DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES, AND GAPS IN KNOWLEDGE WHICH RELATE TO THE ASSESSMENT AND MITIGATION MEASURES PROPOSED**

The impact assessment has been conducted with the consideration of the project scope as per description given by the Developer. If the project is altered in any way, impacts that actually do occur on or around the site may be of higher significance.

The EAP's view that the proposed developments socio-economic impacts outweigh negative potential environmental impacts is based on the assumption that conditions of the EA, should one be issued, and mitigation measures in the EMPr will be adhered to which will reduce potential negative impacts to insignificant levels.

**N. A REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED, AND IF THE OPINION IS THAT IT SHOULD BE AUTHORISED, ANY CONDITIONS THAT SHOULD BE MADE IN RESPECT OF THAT AUTHORISATION;**

***Concluding Remarks including Preferred Project Location***

There were no alternative locations considered for the proposed development due to the presented location being the only one available to the Developer that meets requirements for location of the proposed development. The two main potential negative impacts identified thus far are the threat to ground and surface water quality and possible negative impact on human health. Both these impacts are linked with the management of manure and waste on the site during the operational phase. Therefore, with proper waste management and manure handling practiced on the site, these two impacts can be avoided. It will also be important that the traditional leadership is informed of required space between the farm and residential properties to ensure that no residents are allocated space to construct their homes close to the farm.

***Opinion as to Whether the Proposed Activity Should Be Authorized***

The proposed development will have significant socio-economic benefit for the local community especially considering that ±20 permanent jobs will be offered during the operational phase which is a significant number in a rural area with a high unemployment rate such as Ogunjini. The proposed development should therefore be considered favorably with guidelines and conditions to mitigate against potential negative impacts. With such guidelines and measures, all potential negative impacts can be reduced to levels that allow for the preservation of overall biodiversity and ecosystem functionality and integrity.

***Condition to be Made Part of the EA***

- All waste produced during the construction phase must be disposed of at the nearest landfill site and proof of safe waste disposal must be kept on site.
- A waste management plan for the operational phase of the proposed development must be submitted for approval at least 30 days prior to the commencement of the Operational Phase.
- Should clearing of any vegetation other than grass be seen as necessary, the EAP/ECO and/or vegetation specialist must be consulted prior to the removal of such vegetation to ensure that necessary steps are taken to make the vegetation removal legal/compliant to applicable legislation and regulations.
- All recommendations made by the specialists which will be part of the final BAR must be part of the conditions of the EA.

- The EMPr will form an integral part of the EA.

**O. WHERE APPLICABLE, DETAILS OF ANY FINANCIAL PROVISIONS FOR THE REHABILITATION, CLOSURE, AND ONGOING POST DECOMMISSIONING MANAGEMENT OF NEGATIVE ENVIRONMENTAL IMPACTS**

The applicant must make provision for rehabilitation in the form of tree replacement and landscaping on project completion. There is also a need for alien species eradication programme, to address the issue of invader species mostly associated with earthworks relating to the project in terms of National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) and related Regulations dated 2014.

The implementation of Alien Invasive Management plan, Plant Rescue & Protection plan and Indigenous Landscape plan will require adequate planning and budget.

**P. ANY SPECIFIC INFORMATION THAT MAY BE REQUIRED BY THE COMPETENT AUTHORITY**

None identified at this point.

**Q. ANY OTHER MATTERS REQUIRED IN TERMS OF SECTION 24 (4) (a) AND (b) OF THE ACT**

None identified at this point.

**THE ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT** is attached as **Appendix E**

**AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP IN RELATION TO;**

- (i) The correctness of the information provided in the reports at the time of compilation;
- (ii) The inclusion of comments and inputs from stakeholders and I&APs;
- (iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and
- (iv) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.

I,

confirm that the information provided in the report is correct;

The inclusion of comments and inputs from stakeholders and I&APs is correct;

The inclusion of inputs and recommendations from the specialist reports is correct;

Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.

Commissioner of oaths:

Commissioner:

Place:

Date: