baboloki geohub

Advancement Through Sustainability

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED EMACUSINI LAYER FARM DEVELOPMENT WITHIN THE JOZINI LOCAL MUNICIPALITY, KWAZULU-NATAL

Prepared for:
LIZOHAMBA (PTY) LTD
MR BLESSING MANANA
P O BOX 144, JOZINI 3969
082 586 9845
mcityzn@webmail.co.za

DOCUMENT CONTROL CONFIGURATION	
Title:	Draft Basic Assessment Report[1]: Emacusini Layer Farm Development Within the Jozini Local Municipality, Kwazulu-Natal
Client:	Lizohamba (Pty) Ltd
Status of Report:	Draft
Date of Issue:	5 April 2021

DEPARTMENTAL REFERENCE NUMBER(S)	
File reference number:	DC27/002/2021
NEAS reference number:	KZN/EIA/0001526/2021

CONTENT AND GENERAL REQUIREMENTS

Note that:

This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM:WA"), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA") when the Western Cape Government: Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority/Licensing Authority.

Prepared By:

Baboloki Geohub (Pty) Limited
110 Signal Hill,
45 Nienaber Road,
Prestbury,
Pietermaritzburg, 3201
+ 27 79 962 1987
babolokigeohub@gmail.com

[1] In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".

TABLE OF CONTENTS

Acronyms

BAR	Basic Assessment Report
BID	Background Information Document
CBA	Critical Biodiversity Area
DEA	National Department of Environmental Affairs
DWS	National Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
I&APs	Interested and Affected Parties
KZN EDTEA	KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:BA	National Environmental Management Biodiversity Act [Act No. 10 of 2004
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
PPP	Public Participation Process

STRUCTURE OF THE REPORT

1. DETAILS OF THE PROJECT PROPONENT

The Applicant for the proposed project is the Lizohamba (Pty) Ltd. The details of the Applicant are as follows:

TABLE 1: APPLICANT DETAILS

Applicant	Lizohamba (Pty) Ltd
Representative	Mr Blessing Manana
Postal Address	P O BOX 144, JOZINI 3969
Telephone	082 586 9845
E-mail	mcityzn@webmail.co.za

2. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

The environmental team of Baboloki Geohub & Project Managers [hereafter referred to as Baboloki Geohub] are appointed as the Environmental Assessment Practitioner [EAP] on behalf of Lizohamba (Pty) Ltd. Baboloki Geohub is therefore undertaking the appropriate environmental studies for this proposed project.

TABLE 2: EAP DETAILS[2]

Detail	Baboloki Geohub
Contact Person	Miss Kudakwashe Michele Samantha Zhandire
Address	110 Signal Hill, 45 Nienaber Road, Prestbury, 3201
Telephone	079 962 1987
E-mail	babolokigeohub@gmail.com
Qualification	Bachelor of Arts Geography & Environmental Science and International Relations
Affiliations	Environmental Assessment Practitioners Association of South Africa (EAPASA) – Registered EAP

[2] Full curriculum vitae of the above practitioners can be found in Appendix G of this report. [double-check this – above reference to EAP is Appendix G]

Detail	Baboloki Geohub
	International Association of Impact Assessment South Africa (IAIAsa) Institute for Waste Management of Southern Africa (IWMSA)
Experience	10 years

Kudakwashe Zhandire is the Director at Baboloki Geohub. Having obtained her Bachelor of Arts Degree from the Monash South Africa University; she has over 10 years' experience in the environmental consulting industry in southern Africa. She has gained extensive experience in the field of Integrated Environmental Management, environmental impact assessments and public participation. She has also been actively involved in a number of projects, including road and water infrastructure, sanitation, irrigation as well as renewable energy facilities. Kudakwashe has major project experience in the development of Environmental Impact Assessments, Basic Assessments, Environmental Management Plans and the monitoring of construction activities. Her areas of expertise include project management, environmental scoping and impact assessments, environmental management plans, environmental compliance monitoring and environmental feasibility studies. For the detailed experience of the EAP, refer to Appendix G of this fBAR.

3. EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

3.1. The Proposed Development

The Lizohamba (Pty) Ltd has proposed the development of Emacusini layer farm, a poultry farm located in Biva, falling under Ward 6 of the Jozini Local Municipality. The project entails the construction of 11 buildings each measuring 100m long by 10m wide, housing a total of 439,232 chickens in a one-year cycle. The construction of an administration Block with parking bays, egg collection and grading room, and ablution facilities with 2 septic tanks, guard house and generator room as supporting infrastructure.

3.2. Site Location & Description:

The Lizohamba (Pty) Ltd is located in the area of Biva, Jozini. Jozini Local Municipality is one of the four municipalities within uMkhanyakude District Municipality. It is located in the northern region of KwaZulu–Natal, and is bordered by Mozambique to the north, Swaziland to the west, uMhlabuyalingana to the east, Big Five/ Hlabisa to the south and Nongoma and Uphongolo to the west. It consists of 6 semi formalized towns viz. Jozini, Mkhuze, Ingwavuma, UBombo, Bhambanana and Ndumo. The remaining parts of the municipality are characterized as being rural in nature. Jozini Municipality covers 32% (3057 Square Kilometres) of the total area of 13859 Square Kilometres of uMkhanyakude District Municipality. Jozini local municipality is divided into twenty wards. The large area of Jozini falls under the ownership of Ingonyama Trust and some areas are privately owned by individuals whilst a small portion is owned by the State.

Site and activity alternatives and re-alignment have been proposed with adequate mitigations in sensitive environments incorporated. The proposed project is aimed at address the area's unemployment and dependence on the SASSA social grant in the Biva area.

3.3. Aims and Purpose of this Report

The purpose of this Basic Assessment Report (BAR) is to present the environmental impact assessment undertaken on the preferred alternative for the proposed development. The preferred site layout and technical specifications, were assessed by the specialists and their findings and assessment are collated in this BAR. This BAR will provide sufficient information for the competent authority to make an informed decision on the proposed development. The report further addresses comments received during the public participation process.

The BA for Emacusini Layer Farm aims to achieve the following:

- Conduct a consultative process
- Determine the policy and legislative context within which the proposed activity is undertaken and how the activity complies with and responds to the policy and legislative context.
- Describe the need and desirability of the proposed alternatives.
- Undertake an impact and risk assessment process inclusive of cumulative impacts (where applicable). The focus will include- determine the geographical, physical, and biological sensitivity of the sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine the nature, significance, consequence, extent, duration, and probability of the impacts occurring to, and the degree to which these impacts

3.4. Legal Requirements

The National Environment Management Act, 1998 (Act No 107 of 1998) (NEMA) promotes the use of scoping and EIA in order to ensure the integrated environmental management of activities.

Section 24(1) of NEMA states:

"In order to give effect to the general objectives of integrated environmental management laid down in this Chapter, the potential impact on the environment of listed activities must be considered, investigated, assessed and reported to the competent authority charged by this Act with granting the relevant environmental authorisation."

EIA is ultimately a decision-making process with the specific aim of selecting an option that will provide the most benefit, and cause the least impact. The EIA process should identify activities which may have a detrimental effect on the environment, and which would therefore require environmental authorisation prior to commencement.

The EIA process commences with formally notifying the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (KZN EDTEA) of the proposed development by the submission of application forms. Following the notification, the EAP, along with the team of technical specialists, will commence the process with defining the appropriate "scope" of the EIA process. This involves establishing the existing environmental baseline of the site proposed for development, considering the type of development and its potential impacts on the existing environment, and therefore determining what potential impacts should be assessed and how, within the EIA process.

The EAP therefore compiles a Draft BA Report which is made available for public and stakeholder comment for a prescribed consultation period. All comments received in response to the Draft BAR will be considered and as appropriate incorporated into the Final BAR.

I&APs will then be notified of the availability of the Final BAR and advised that should they like to comment on the report, they must submit their comments directly to the KZN EDTEA (contact details for KZN EDTEA will be included in the notification documents).

Once a FBAR has been submitted, the competent authority (the KZN EDTEA) will make a decision on whether to grant or refuse Environmental Authorisation.

TABLE 3: LISTED ACTIVITIES OF THE EIA REGULATIONS 2014 [AS AMENDED IN 2017]

Relevant notice	Activity No[s]
GN R No. [GNR] 327 Listing Notice 1	5(ii), 27,

3.5. Public Participation

The key phases of this environmental authorisation process are described below:

- **Initial Notification and Call to Register as I&APs through the following:** Advertisements, site notices, posters, letters to landowners and pre-identified I&APs. The aim of this step is to inform people of the proposed activity and to encourage initial comment and feedback.
- **Basic Assessment Process: Collation of initial comments and specialist investigations into a concise report (this document) which provides feedback on the following:**
  - Nature of the activity;
  - Description of the receiving environment;
  - Identification of potential feasible alternatives;
  - Identification of potential positive and negative impacts; and
  - Identification of knowledge gaps.

The process has involved an investigation and comparative assessment of the proposed development. The identified impacts have been assessed and relevant management and mitigation measures have been included in an Environmental Management Programme (EMPr). The findings are included in this Report.

Ongoing Public Consultation: Throughout the process, registered I&APs were consulted. This involvement was initiated through the dissemination of information by means of advertisements and notification letters, and opportunities were provided for Interested and Affected Parties (I&APs) to review and comment on the proposed development.

Following the completion of the relevant processes described above and the submission of documentation to the competent authority (KZN EDTEA), the KZN EDTEA will review the application and issue a decision (called an Environmental Authorisation). I&APs will be informed of the decision and their rights to appeal.

In terms of Public Participation for the proposed development, the following tasks have been completed:

- Interested and Affected Parties (I&APs) have been identified throughout the process. Initial identification of I&APs was done by identifying all landowners

adjacent to the site boundary. Ward councillors, Authorities have also been informed;

- An advertisement was placed in a local newspaper **Mkhanyakude Express News on Wednesday 31st March 2021** to notify the public of the proposal; Notification letters, and project information was distributed on 28th November 2020;
- This Draft BAR is available for public review from the 6th April 2021 – 8th May 2021.
- Seven (7) site notices were placed on the boundaries of the development site on the 28th November 2020;
- The comment period on the Draft Basic Assessment Report closes on the 8th May 2021.

After the initiation of the public participation process, correspondence for the remainder of the process is directed to I&APs who are registered and placed on the project database. Correspondence with I&APs has been via telephone and email.

3.6. Assumptions, Gaps and Limitations of the study

The BA process followed the legislated process required and as governed and specified by the EIA Regulations [2014 as amended in 2017]. Inevitably, when undertaking scientific studies, challenges and limitations are encountered. For this specific BA, the following assumptions and limitations are applicable to this study:
The following assumptions and limitations are applicable to this study:

- The assumption is made that the information on which this report is based (specialist studies and project information, as well as existing information) is accurate and correct at the time of writing this report.
- It is assumed that the recommendations derived from this study would be included in all tender documentation and the EMP for implementation.

Wetland and Watercourse Impact Assessment

There are no major gaps in the aquatic and wetland ecological impact assessment that are likely to influence the significance of the findings. The main assumption is that the aquatic and wetland samples which were taken are representative of wetland and watercourse environments in the whole study area.

Vegetation Assessment

There are no major gaps in the terrestrial vegetation ecological impact assessment that are likely to influence the significance of the findings.

3.7. Alternatives Assessment

The following alternatives have been investigated:

The following alternatives have been investigated:

Site Alternatives

No site alternatives have been proposed for this project as the purpose of this application is for the development of a layer chicken farm and associated access roads

Activity Alternatives

No activity alternatives have been investigated for this project.

Design or Layout Alternatives

Design / layout alternatives were considered for Emacusini Layer Farm. The preferred layout refers to a layout where the proposed development reduces the number of layer houses and reduces the width of the initial proposal to allow for more air circulation and prevent odour nuisance from the chicken excrement.

Technology Alternatives

Technology alternatives are not considered applicable to the general purpose of this

Operational Alternatives

No operational alternatives are not considered applicable to the general purpose of this Application as the purpose of this application is for the development of a layer chicken farm.

The No-Go Alternative

The "No Go" alternative is the "no-development alternative". This option of retaining the status quo, and not proceeding with the proposed layer farm development is not reasonable considering the fact that the implementation of the Lizohamba (Pty) Emacusini Layer Farm project will contribute in a tangible manner to one of the employment prospects and socio-economic wellbeing of the Biva community and Jozini.

3.8. Summary of Key Findings

Key findings of the impact assessment contained in the BAR are included below:

Construction phase impacts identified by the Basic Assessment Process include:

- Potential for Soil Erosion;
- Loss of or damage to Vegetation;
- Impact of litter/waste pollution from the activities and construction workers on site on the surrounding environment;
- Job creation;
- Noise Impacts;

Operational phase impacts identified by the Basic Assessment Process include:

- Impact of potential soil erosion;
- Impact of odour nuisance from the proposed development;
- Job creation; and
- Impact of increased revenue to the local economy.

The proposed development will result in no unacceptable biophysical and socio-economic impacts, after mitigation. No (post mitigation) impacts of high negative significance will occur as a result of the implementation of the proposed activity during either the construction or operational phase.

Negative impacts on the socio-economic environment are mainly limited to the construction phase and will be of low to very low negative significance with mitigation measures. The proposed development has positive socio-economic impacts of low

significance in the construction phase, in terms of job creation, and positive impacts of very low significance in terms of increased revenue into the local economy as well as to the national fiscus during the operational phase.

The implementation of the "No-Go" alternative would have a negative impact in terms of the opportunity cost of lost increased revenue to local economy and a low negative impact of job losses.

3.9. Way Forward

The impacts identified and assessed by way of risk ratings, have been extensively reported herein. The report at hand [i.e. dBAR] together with a comprehensive issues trail, the draft of the EMPr, and all Annexures as referred to will now be submitted to the KZN EDTEA, for comment. The fBAR report will be a culmination of scientific specialist studies' findings, public contribution via formal comment, comment made at meetings held, and the drawing of conclusions by the EAP as the environmental specialist.

4. SECTION A: PROJECT INFORMATION

4.1. Project Description

(a) Is the project a new development? If "NO", explain:

Yes. This proposed project is a new layer chicken farm development.

(b) Provide a detailed description of the scope of the proposed development (project).

The Lizohamba (Pty) Ltd proposes the development of Emacusini layer farm, a poultry farm located in Biva, falling under Ward 6 of the Jozini Local Municipality. The project entails the construction of 11 buildings each measuring 100m long by 10m wide, housing a total of 439,232 chickens in a one-year cycle. The construction of an administration Block with parking bays, egg collection and grading room, and ablution facilities with 2 septic tanks, guard house and generator room as supporting infrastructure.

Two specialist studies have been commissioned for this proposed development:

- Ecological Impact Assessment
- Wetland Delineation and Impact Assessment – to show the proximity of freshwater resources to the project.

(c) List all the listed activities triggered and being applied for.

TABLE 4: LISTED ACTIVITIES OF THE EIA REGULATIONS [2014 AS AMENDED IN 2017]

Relevant notice	Activity No[s]	Description [Verbatim and as per applicability to proposed development]
GNR 327 – Listing Notice 1	*Activity 5(ii)*	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;

Relevant notice	Activity No[s]	Description [Verbatim and as per applicability to proposed development]
		The project entails the development of infrastructure for 479 232 at Jozini Local Municipality under uMkhanyakude District
GNR 327 - Listing Notice 1	*27*	The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan. **The poultry project will entail removal of vegetation exceeding 1 hectare for the development of poultry infrastructure.**
Government Notice Regulation No. [GNR] 325 of 2017	*No relevant activities*	
GNR 324: Listing Notice 3		

(d) Details of all components including associated structures and infrastructure

The construction of an administration Block with parking bays, egg collection and grading room, and ablution facilities with 2 septic tanks, guard house and generator room as supporting infrastructure.

Water Supply Infrastructure

Water Source- 2 boreholes are proposed on site (Appendix C)

4.2. Physical size of the Proposed Development

Land Use	Number	Area m²
Layer Hen House	11	11,000
Guard House	1	100
Administration Block	1	400
Staff Ablution Facilities	1	400
Borehole with Water tank storage	2	300
Septic Tank	2	200
Generator Room	1	250
Parking Bays and driveway	10	600
Feeder Tanks	22	450

4.3. Site Access

From Jozini BP Garage, travel east towards the dam wall for 700m, then turn right onto P449 towards Jozini Mall and travel 5.1km. Turn left onto D9 road, and travel 9.6km, then turn right onto D21 Road and travel 3.3km. after the bridge over the Balamhlanga wetland, turn right and travel 2.3km towards Biva Combined School, the Emacusini Layer Farm will be across the Biva combined school.

5. SECTION B: DESCRIPTION OF THE PROPERTY (IES) ON WHICH THE LISTED ACTIVITY (IES) ARE TO BE UNDERTAKEN AND THE LOCATION OF THE LISTED ACTIVITY (IES) ON THE PROPERTY

The proposed Emacusini Layer Farm is located within the Biva area of Jozini, in the Makhathini Flats which is a rural area that is inhabited by permanent residents, migrant workers, subsistence and emerging commercial farmers. The broader project footprint has been the subject of varying degrees of impact in terms of

habitation/dwellings, subsistence farming; including growing of crops and keeping of livestock, as well as the harvesting of natural resources. There are no alternate properties associated with the proposed development.

Coordinates

Coordinates of all the proposed activities on the property or properties (sites):

Point	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec.)		
North-west Corner	27	25	45.84	32	12	48.96
South West Corner	27	25	52.68	32	12	55.08
South East Corner 1	27	25	47.28	32	13	0.48
South East Corner 2	27	25	45.12	32	13	0.84
South East Corner 3	27	25	46.20	32	13	4.08
South East Corner 4	27	25	45.50	32	13	5.15
North East Corner	27	25	39.36	32	13	0.12

Provide a location map (see below) as Appendix A to this report that shows the location of the proposed development and associated structures and infrastructure on the property; as well as a detailed site development plan / site map (see below) as Appendix B to this report; and if applicable, all alternative properties and locations. The GIS shape files (.shp) for maps / site development plans must be included in the electronic copy of the report submitted to the competent authority.

Locality Map:	The scale of the locality map must be at least 1:50 000. For linear development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s)

	• a north arrow; • a legend; • a linear scale; • Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system. PLEASE SEE APPENDIX A FOR LOCALITY MAP

Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:
	• The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale.
	• The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan.
	• The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan.
	• The position of each element of the application as well as any other structures on the site must be indicated on the site plan.
	• Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan.
	• Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.
	• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to):
	  • Watercourses / Rivers / Wetlands - including the 32-meter set back line from the edge of the bank of a river/stream/wetland;
	  • Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable;

	• Ridges; • Cultural and historical features; • Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas. PLEASE SEE APPENDIX B FOR SITE DEVELOPMENT PLAN.

6. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as Appendix B to this report. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

PLEASE SEE APPENDIX B FOR SITE PHOTOGRAPHS

6.1. Gradient of the Site

Indicate the general gradient of the sites

The slope analysis study indicates that the majority of the the proposed project area is dominated by a topography that is extremely flat. The north eastern – south western axis has a gradient of 0.35% dropping from an altitude of 70 mamsl in the south to 62 in the north; while the south eastern – north western axis has a gradient of 0.42% dropping from an altitude of 68 mamsl on the eastern boundary.

6.2. Provide a description of the location in the landscape.

The site is situated in Biva, Jozini in KwaZulu Natal. The site is bordered to the noeth by the Biva combined school, and to the east by a rural burial ground and undeveloped grassland and rural residences.

6.3. Groundwater, Soil and Geological Stability of the Site

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

Shallow water table (less than 1.5m deep)	**Yes**	✓ **No**	**Unsure**
Seasonally wet soils (often close to water bodies)	✓ **Yes**	**No**	**Unsure**
Unstable rocky slopes or steep slopes with loose soil	**Yes**	✓ **No**	**Unsure**
Dispersive soils (soils that dissolve in water)	**Yes**	✓ **No**	**Unsure**
Soils with high clay content	**Yes**	**No**	✓ **Unsure**
Any other unstable soil or geological feature	**Yes**	✓ **No**	**Unsure**
An area sensitive to erosion	**Yes**	✓ **No**	**Unsure**
An area adjacent to or above an aquifer.	**Yes**	✓ **No**	**Unsure**
An area within 100m of a source of surface water	**Yes**	✓ **No**	**Unsure**
An area within 500m of a wetland	✓ **Yes**	**No**	**Unsure**
An area within the 1:50 year flood zone	**Yes**	✓ **No**	**Unsure**

A water source subject to tidal influence	**Yes**	✓ **No**	**Unsure**

6.4. Provide a description of the type of geological formation underlying the site.

The Maputaland plain, within which the Phongola floodplain is located, consists of geologically
recent late Pleistocene and Holocene beach sand deposits overlying much older marine sediments (Mid to late Cretaceous and Mio-Pliocene; Botha & Porat, 2007). Fluctuations in sea level and periods of uplift resulted in the sea retreating eastwards from the foot of the Lubombo mountains to its current position with the formation of the Maputaland plain from coastal and later beach sand deposits and a series of ridges parallel to the coast formed from fossilized sand dune deposits (Botha and Porat, 2007; Heeg & Breen, 1994). The sediments of marine origin that underlie this beach sand cause elevated levels of salinity in much of the groundwater. The dune ridges influenced the flow of the Phongola River by forming a barrier to its previous eastward flow, deflecting it north to where it now enters the Indian Ocean south of Maputo in Mozambique (Basson et al., 2006). Alluvial soils located on river terraces resulting from fluctuating sea levels during the Pleistocene and Holocene glacial cycles now form much of the irrigable soils found on the Makhathini Flats (Heeg & Breen, 1994). The Phongola floodplain consists of deep deposits of alluvial soils resulting from infilling of the deeply incised river valley resulting from sea level fluctuations (Heeg & Breen, 1982).

Heeg & Breen (1979) describe the soils of the Pongola floodplain and surrounding Makhathini flats as originating from four key sources:

- Weathering of the acid volcanic rocks of the Lubombo and Ubombo ranges;
- Weathering of the cretaceous deposits at the base of these mountains;
- Windblown sands; and
- Alluvium deposited by the river.

Mixtures of these materials have resulted in the formation of soils with differing structure, drainage characteristics and chemical compositions. Soils suitable for irrigable agriculture comprise three main categories (Heeg & Breen, 1979):

• Clayey slowly permeable soils (e.g. Oakleaf, Shortlands and Bonheim forms);

• Loamy, medium textured soils (e.g. Hutton, Dundee, Oakleaf and Shortlands forms); and

• Sandy, coarse textured soils (e.g. Clovelly, Oakleaf, Hutton and Kroonstad forms).

The above description is similar to and is thus supported by that captured in the Baseline Ecological Assessment of the INR (2010).

6.5. Surface Water

Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

Perennial River	**Yes**	✓ **No**	**Unsure**
Non-perennial river	**Yes**	✓ **No**	**Unsure**
Permanent Wetland	**Yes**	✓ **No**	**Unsure**
Seasonal Wetland	✓ **Yes**	**No**	**Unsure**
Artificial Wetland	**Yes**	✓ **No**	**Unsure**
Estuarine/ Lagoon	**Yes**	✓ **No**	**Unsure**

6.6. Biodiversity

Highlight the applicable biodiversity planning categories of all areas on preferred and alternative sites

Vegetation cover is mostly secondary and disturbed, and is dominated by opportunistic, pioneer species such as Sclerocarya birrea (common Marula Tree), and supports a high alien invasive plant component including Chomolaena oderata,

Ageratina adenophorum, Parthenium hysterophorus and Riccinus communis among others. Some large trees (Vachellia xanthophloea, Trichillia, acacia, Acacia concurrens etc) are present, and may have been planted previously.

In the northern half of the study area, there is more grassy vegetation, with small shrubs, but this too is fairly degraded. Images below illustrate aspects of the current status of the vegetation and faunal habitats present on site.

Notwithstanding the significant habitat degradation and transformation within the project site and the generalist nature (diet and habitat) of the recorded species, the proposed layer farm development will likely not have a significant impact on avian species within the study site. Moreover, the project is not likely to have a negative impact on biodiversity conservation targets since it is not considered critical for meeting biodiversity targets.

6.7. Land use of the site

✓ Untransformed area	Low density residential	Medium density residential	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism and Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes and more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge		Museum		

Provide a description.

Farming activities have predominantly resulted in the transformation of the project site. The vegetation onsite has been altered from its historic benchmark conditions. However, some indigenous vegetation was encountered along in the form of acacia trees on sections of the site.

6.8. Land use character of the surrounding area

Untransformed area	Low density residential	Medium density residential	High density residential	✓ Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism and Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	✓ School	Tertiary education facility	✓ Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes and more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	✓ Agriculture	✓ River, stream or wetland	Nature conservation area
Mountain, koppie or ridge		Museum		

Provide a description

The proposed site is located within the rural area of Biva, Jozini.

6.9. Socio-Economic Aspects

Describe the existing social and economic characteristics of the community in the vicinity of the proposed site, in order to provide baseline information (for example, population characteristics/demographics, level of education, the level of employment and unemployment in the area, available work force, seasonal migration patterns, major economic activities in the local municipality, gender aspects that might be of relevance to this project, etc.).

The municipality has a fairly low average population density with the expected high density areas of the primary node and the traditional authority areas. This pattern has a positive effect on service delivery as the higher the density the more economical can service delivery be done.

Approximately 6,990 is the total population of the Biva Area in Ward 6 of Jozini Local Municipality

Economic aspects

Summary observations regarding the economic characteristics of the local municipality shows an unemployment rate of 45% of the labour force.

Population composition			
Young (0-14)	41%	82 344	StatsSA
Working age (15-64)	55%	75 967	StatsSA
Elderly (65+)	4%	6 824	StatsSA
Sex ratio (women/100 men)	85.8%		StatsSA
Dependency ratio	82.4%		StatsSA
Disabled (%)			

6.10. Historical and Cultural Aspects

(a) Please be advised that if Section 38 of the NHRA is applicable to your proposed development, you are requested to furnish this Department with written comment from Amafa aKwaZulu-Natali as part of your public participation process. Amafa aKwaZulu-Natali must be given an

opportunity, together with the rest of the I&APs, to comment on any Pre-application BAR, a Draft BAR, and Revised BAR.

Section 38 of the NHRA states the following:

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

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

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

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

(i) exceeding 5 000m2 in extent; or

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

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

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

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

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development".

(a) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:

"*3(2) Without limiting the generality of subsection (1), the national estate may include—*

(a) places, buildings, structures and equipment of cultural significance;

(b) places to which oral traditions are attached or which are associated with living heritage;

(c) historical settlements and townscapes;

(d) landscapes and natural features of cultural significance;

(e) geological sites of scientific or cultural importance;

(f) archaeological and palaeontological sites;

(g) graves and burial grounds, including—

(i) ancestral graves;

(ii) royal graves and graves of traditional leaders;

(iii) graves of victims of conflict;

(iv) graves of individuals designated by the Minister by notice in the Gazette;

(v) historical graves and cemeteries; and

(vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);

(h) sites of significance relating to the history of slavery in South Africa;

(i) movable objects, including—

(i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;

(ii) objects to which oral traditions are attached or which are associated with living heritage;

(iii) ethnographic art and objects;

(iv) military objects;

(v) objects of decorative or fine art;

(vi) objects of scientific or technological interest; and

(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)".

Is Section 38 of the NHRA applicable to the proposed development?	✓ **Yes**	**No**	**Uncertain**
The layer farm project exceeds the threshold specified in terms of S38 of the National Heritage Resources Act. A NID Application (a)) was sent to Amafa aKwaZulu-Natali.			

Impacts on the NHRA Sections

Act	Section	Description	Possible Impact	Action
National Heritage Resources Act (NHRA)	34	Preservation of buildings older than 60 years	No Impact	None
	35	Archaeological, Paleontological and meteor sites	No Impact	None

	36	Graves and Burial Sites	No Impact	None
	37	Protection of Public Monuments	No Impact	None
	38	Does activity trigger a HIA?	No	None

Action Trigger	Yes/No	Description
Construction of a road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length.	No	N/A
Construction of a bridge or similar structure exceeding 50m in length.	No	N/A
Development exceeding 5000 m²	Yes	Proposed Emacusini Layer Farm
Development involving more than 3 erven or sub divisions	No	N/A
Development involving more than 3 erven or sub divisions that have been consolidated in the past 5 years	No	N/A
Re-zoning of site exceeding 10 000 m2	No	N/A
Any other development category, public open space, squares, parks or recreational grounds	No	N/A

NHRA Triggers

7. APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES

(a) Identify all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the development proposal and associated listed activity(ies) being applied for and that have been considered in the preparation of the BAR.

LEGISLATION, POLICIES,	ADMINISTERING AUTHORITY	TYPE	DATE

PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	and how it is relevant to this application	Permit/license/authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.)	(if already obtained):
National Environmental Management Act, 1998 (Act No. 107 1998) EIA regulations, 2014, as amended (GN No. R. 326) and Listing Notices 1, 2 and 3.	Department of Economic Development Tourism and Environmental Affairs The proposed development triggers listed activities in listing Notice 1 and 3, which requires environmental authorisation.	Environmental Authorisation via a Basic Assessment Process	Application in progress
National Environmental Management: Biodiversity Act (Act No. 10 of 2004) list of ecosystems that are threatened and in need of protection	Ezemvelo KZN Wildlife The ecosystem status of the affected vegetation type was gained using the List of Threatened Terrestrial Ecosystems (Government Gazette, 2011). The gazette listings are crucial to commenting on the level of sensitivity in relation to natural vegetation quantity and quality, and hence in the assessment of the significance of the potential	Comment	Application in progress

	impact of the proposed project on vegetation. A specialist botanical assessment has been undertaken (by Bergwind Botanical Surveys and Tours cc) to assess the potential impacts of the proposed project on vegetation.		
The Conservation of Agricultural Resources	Department of Agriculture, Forestry and Fisheries	Comment	Comment will be obtained through the comment period of the BAR.
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	Amafa aKwaZulu-Natali In terms of Section 38(1) of the NHRA, any person who intends to undertake "any development … which will change the character of a site exceeding 5 000 m^2 in extent", must at the very earliest stages of initiating the development notify the responsible heritage resources authority, viz. the South African Heritage Resources Agency ("SAHRA") or the relevant provincial heritage agency, viz Amafa aKwaZulu-Natali	Comment	A NID Application was lodged to Amafa aKwaZulu-Natali on 5 April 2021

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY

NEMA Environmental Impact Assessment Regulations Guidelines and Information Document Series (March 2013) on: • Appeals • Alternatives • Exemptions • Needs and Desirability • Public participation • Transitional Arrangements	EDTEA
Jozini Local Municipality Final Integrated Development Plan Review (2020/2021).	Jozini Local Municipality
Jozini Local Municipal Spatial Development Framework,	Jozini Local Municipality
Umkhanyakude District Integrated Development Plan	Umkhanyakude District Municipality
Umkhanyakude District Spatial Development Framework	

Describe how the proposed development complies with and responds to the legislation and policy context, plans, guidelines, spatial tools, municipal development planning frameworks and instruments.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	**Describe how the proposed development complies with and responds:**
National Environmental Management Act, 1998 (Act No. 107 1998) EIA Regulations, 2014, as amended (GN No. R. 982, R. 983, R.984 and R.985).	The NEMA, as amended, and EIA Regulations (2014) were consulted to determine the applicable activities triggered in Listing Notices 1, 2, and/or 3 for the proposed project. It was thereafter determined that the proposed project will require an Environmental Authorisation from EDTEA via the Basic Assessment process outlined in GN. 326.
National Environmental Management: Biodiversity Act (Act No. 10 of 2004) list of ecosystems that are threatened	The ecosystem status of the affected vegetation type was gained using the List of Threatened Terrestrial Ecosystems (Government Gazette, 2011). The gazette listings are crucial to commenting on the level of sensitivity in relation

and in need of protection, (G 34809, GN 1002), 9 December 2011	to natural vegetation quantity and quality, and hence in the assessment of the significance of the potential impact of the proposed project on vegetation. A specialist botanical assessment has been undertaken to assess the potential impacts of the proposed project on vegetation.
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	In terms of Section 38(1) of the NHRA, any person who intends to undertake "any development … which will change the character of a site exceeding 5 000 m^2 in extent", must at the very earliest stages of initiating the development notify the responsible heritage resources authority, viz. the South African Heritage Resources Agency ("SAHRA") or the relevant provincial heritage agency, viz Amafa aKwaZulu-Natali.
NEMA Environmental Impact Assessment Regulations Guidelines and Information Document Series	The applicable guidelines (outlined above) were reviewed in conjunction with the applicable sections of the EIA Regulation R.326 to ensure that all legal requirements were adequately met and that principles of best practice were applied, where applicable.
KwaZulu-Natal Provincial Spatial Development Framework	The PSDF was reviewed to determine whether the proposed project is in line with the principles and action plans of the PSDF. Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
Jozini Local Municipal Spatial Development Framework	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
Jozini Local Municipal Final Integrated Development Plan	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.

Umkhanyakude District Integrated Development Plan	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
Umkhanyakude District Spatial Development Framework	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
Guideline for Environmental Management Plans, June 2006	Refer to **Appendix F**: Environmental Management Plan

8. SECTION C: PUBLIC PARTICIPATION

The PPP must fulfil the requirements outlined in the NEMA, the EIA Regulations, 2014 (as amended) and if applicable any other legislation, and guidelines must also be taken into account.

1. Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was an exemption applied for.

In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) -			
(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -			
	YES	**EXEMPTION**	**N/A**
(i) the site where the activity to which the application relates, is or is to be undertaken; and	YES		
(ii) any alternative site			N/A
(b) giving written notice, in any manner provided for in Section 47D of the NEMA, to –			
(i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;			N/A
(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES		

(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES		
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES		
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES		
(vi) any other party as required by the Department;	YES		
(c) placing an advertisement in -			
(i) one local newspaper; or	YES		
(ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;			N/A
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken			N/A
(e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	YES		
If you have indicated that "EXEMPTION" is applicable to any of the above, proof of the exemption decision must be appended to this report. NOT APPLICABLE, NO EXEMPTIONS FOR THIS APPLICATION			

Provide a list of all the State Departments and Organs of State that were consulted:
The following departments will be contacted as part of the Basic Assessment process. These state departments and organs of state will be provided with an opportunity to comment, along with all registered interested and affected parties on the proposed development. Their comments will be included as part of the final basic assessment report and included in the comments and response report.

State Department / Organ of State
Department of Agriculture, Forestry & Fisheries
Department of Economic Development, Tourism Environmental Affairs
Amafa aKwaZulu-Natal
Ezemvelo KZN Wildlife
Umkhanyakude District Municipality
Department of Water and Sanitation

Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.

(The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as Appendix E).

- Employment opportunities for the residents of Biva
- Duration of time before construction begins

Provide a summary of any conditional aspects identified / highlighted by any Organs of State, which have jurisdiction in respect of any aspect of the relevant activity.

- None at this stage

A list of all the potential I&APs, including the Organs of State, notified and a list of all the registered I&APs must be submitted with the BAR. The list of registered I&APs must be opened, maintained and made available to any person requesting access to the register in writing.

The BAR must be submitted to the Department when being made available to I&APs, including the relevant Organs of State and State Departments which have jurisdiction with regard to any aspect of the activity, for a commenting period of at least 30 days. Unless agreement to the contrary has been reached between the Competent Authority and the EAP, the EAP will be responsible for the consultation with the relevant State Departments in terms of Section 240 and Regulation 7(2) – which consultation must happen simultaneously with the consultation with the I&APs and other Organs of State.

All the comments received from I&APs on the BAR must be recorded, responded to and included in the Comments and Responses Report included as **Appendix E** of the BAR. If necessary, any amendments made in response to comments received must be effected in the BAR itself. The Comments and Responses Report must also include a description of the PPP followed.

The minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded, must also be submitted as part of the public participation information to be attached to the final BAR as **Appendix E.**

Proof of all the notices given as indicated, as well as notice to I&APs of the availability of the Pre-Application BAR (if applicable), Draft BAR, and Revised BAR (if applicable) must be submitted as part of the public participation information to be attached to the BAR as **Appendix E**. In terms of the required "proof" the following must be submitted to the Department:

- a site map showing where the site notice was displayed, a dated photograph showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
    - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
    - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
    - if a facsimile was sent, a copy of the facsimile report;
    - if an electronic mail was sent, a copy of the electronic mail sent; and
    - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

9. SECTION D: NEED AND DESIRABILITY

The *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: http://www.gov.za/sites/www.gov.za/files/38108_891.pdf) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

1. Is the development permitted in terms of the property's existing land use rights?	Yes		**Please Explain**
The is currently zoned agriculture however, as far as the specific site of the proposed Emacusini Layer Farm is concerned there is no evidence of habitation but it appears that almost the entire area has been disturbed by subsistence agriculture of varying types. The cultivation of crops reliant on seasonal floods and rainfall is evident in patches along the lower terrace and the north eastern corner, both of which bear testimony to the fact that these portions of the area are subject to			

frequent flooding. The areas that are not currently under cultivation show evidence of previous disturbance and are most probably old lands that may be cultivated again in the future and/or are used to support livestock grazing.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("PSDF").	Yes		**Please Explain**
One of the guiding principles of the PSDF is sustainability and resilience. Land development should be spatially compact, resource-frugal, compatible with cultural and scenic landscapes, and should not involve the conversion of high potential agricultural land or compromise ecosystems. Resilience is about the capacity to withstand shocks and disturbances such as climate change or economic crises, and to use such events to catalyse renewal, novelty and innovation. The focus should be on creating complex, diverse and resilient spatial systems that are sustainable in all contexts. Development should be contained within a limited footprint, preferably adjacent to existing settlements, and the required ecological buffers and setbacks must be adhered to. The specialist studies undertaken as part of this Basic Assessment process will ensure that the proposed development is in line with the PSDF and that the project design, construction and operation of any aspects of the project (if the BAR is approved), are appropriate to ensuring that ecological integrity is maintained at an acceptable level.			
(b) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g., would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).		**No**	**Please explain**
One of the visions of the Jozini Spatial Development Framework is to sustainably exploit the municipality's wide variety of agricultural, tourist and cultural resources. The main economic resources of the Jozini town include agriculture and tourism. The proposed development (through providing employment) will therefore not compromise the integrity of the existing IDP and SDF, but should benefit the municipality via contributions into the local town economy.			
Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g., development is a National Priority, but within a specific local context it could be inappropriate.)	**YES**		**Please explain**

The surrounding community would benefit from the development in terms of a number of temporary employment opportunities during the construction, as well as permanent positions once the project is operational.			
Is this project part of a national programme to address an issue of national concern or importance?		**NO**	**Please explain**
The proposed project addresses a local need. "The need and desirability for the layer farm development is of high priority due to the lack of employment opportunities and overreliance on the SASSA social grant.			
Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)	YES		Please explain
Yes, the site is ideal for a layer farm development.			
Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?		NO	Please explain
Since the proposed development is in accordance with the existing surrounding land use, no significant impact on the environment is anticipated. Some minor impacts are anticipated during the construction phase of the project; however, these can readily be mitigated through the implementation of the Environmental Management Program (EMPr) for the development (Refer to Appendix F). There are no heritage or archaeological sensitives on the proposed development site. A specialist's botanical survey was also completed for the site and found no areas of natural sensitivity. The botanical report can be found in Appendix D			
Will the development impact on people's health and well-being (e.g., in terms of noise, odours, visual character and 'sense of place', etc.)?		NO	Please explain
Since the proposed development is designed in accordance with the existing surrounding residential land use, no significant negative impacts on health and wellbeing are anticipated. Some minor impacts are anticipated during the construction phase of the project; however, these can readily be mitigated through the implementation of the Environmental Management Program (EMPr) for the development (Refer to Appendix F).			
Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?		NO	Please explain

The development is within the existing development rights of the property, and does not conflict with the relevant planning regulations and zoning scheme. In addition, the proposal would not cumulatively have a significant negative impact on either the bio-physical or socio-economic environment.
What will the cumulative impacts (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?
The proposed development site is in line with the surrounding developments. The proposed project addresses a local need. "The need and desirability for the layer farm development is of high priority due to the lack of employment opportunities and overreliance on the SASSA social grant.

Is the development the best practicable environmental option for this land/site?	**Yes**		**Please explain**
The site is in line with the surrounding residential land use.			

What will the benefits be to society in general and to the local communities?	**Please explain**
The surrounding community would benefit from the development in terms of a number of temporary employment opportunities during the construction, as well as possible permanent positions during the operational phase of the project. The proposed project addresses a local need. "The need and desirability for the layer farm development is of high priority due to the lack of employment opportunities and overreliance on the SASSA social grant. Jobs will be created with the proposed development in the area of Biva, and Jozini during the construction phase, thus unlocking the potential for economic growth and development".	
Describe how the general objectives of Integrated Environmental Management as set out in Section 23 of the NEMA have been taken into account:	
The general objective of Integrated Environmental Management (Section 23, NEMA 1998) as amended, is listed below with a description of how the proposed project and associated Basic Assessment process has taken these objectives into account: **Promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment:** The BAR, through its identification and assessment of positive and negative impacts on the environment and the incorporation of mitigation measures to manage these impacts, will facilitate responsible decision making by the relevant authorities. **Identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2 of NEMA:**	

In terms of the Basic Assessment process for the proposed activity, all potential impacts associated with the proposed development were identified and adequately assessed. Suitable mitigation measures were recommended to reduce the significance of the impacts.

Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them:
Through inputs from the EAP and specialists during the Basic Assessment process, sufficient information has been made available to ensure that all effects to the surrounding environment have been adequately considered and incorporated into this report for decision making. Three specialist studies have been undertaken for the proposed development, Wetland Delineation, and Ecological. Recommendations of these reports have been included in this BAR and in the EMPr.

Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment:

All public participation requirements in terms of the EIA Regulation Government Notice: R326 will be met during the course of the Basic Assessment process. A comment and response report will be compiled and included as part of the Final BAR. Section C of the report highlight the public participation undertaken during thus far in the basic assessment process.

Ensure the consideration of environmental attributes in management and decision making which may have a significant effect on the environment:

All environmental attributes have been adequately considered. Mitigation measures to manage impacts on sensitive environmental attributes have been included in the report to ensure that impacts on the environment are kept to a minimum.

Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2 of NEMA.

An EMPr has been compiled and attached as **Appendix F**. The mitigation measures suggested (for the construction and operational phases) ensure that potential impacts can be effectively mitigated. The suggested measures outlined in the EMPr are consistent with principles outlined in Section 2 of NEMA.

Describe how the principles of environmental management as set out in Section 2 of the NEMA have been taken into account:

Mitigation measures to manage impacts have been included in the report to ensure that impacts on the environment are kept to acceptable levels. An EMP has been compiled which incorporates the mitigation measures put forward in the BAR. The implementation of the EMP will ensure that environmental management continues throughout the life cycle of the project. The appropriateness of the development in

the broader context has received attention. All of the above aspects contribute to the sustainability of the development.

10. SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

The EIA Regulations, 2014 (as amended) defines "*alternatives*" as " *in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—*
(a) property on which or location where the activity is proposed to be undertaken;
(b) type of activity to be undertaken;
(c) design or layout of the activity;
(d) technology to be used in the activity; or
(e) operational aspects of the activity;
(f) and includes the option of not implementing the activity;"
The NEMA (section 24(4)(a) and (b) of the NEMA, refers) prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

- ensure that the general objectives of integrated environmental management laid down in the NEMA and the National Environmental Management Principles set out in the NEMA are taken into account; and
- include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management (section 23 of NEMA, refers) is, *inter alia*, to "*identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management*" set out in the NEMA.
The identification, evaluation, consideration and comparative assessment of alternatives directly relate to the management of impacts. Related to every identified impact, alternatives, modifications or changes to the activity must be identified, evaluated, considered and comparatively considered to:

- in terms of negative impacts, firstly avoid a negative impact altogether, or if avoidance is not possible alternatives to better mitigate, manage and remediate a negative impact and to compensate for/offset any impacts that remain after mitigation and remediation; and
- in terms of positive impacts, maximise impacts.

10.1. Details of the Identified and Considered Alternatives and Indicate those Alternatives that were Found to be Feasible and Reasonable

Note: A full description of the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exists.

(a) Property and location/site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No site alternatives have been proposed for this project as the purpose of this application is for the development of a layer farm and supporting infrastructure including an administration Block with parking bays, egg collection and grading room, and ablution facilities with 2 septic tanks, guard house and generator room as supporting infrastructure. There are no location alternatives as the land is owned by the applicant.

Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Design / layout alternatives were considered for Emacusini layer Farm Development. The initial proposal was for construction of 12 buildings each measuring 100m long by 12m wide.

This has been changed to 11 buildings, each measuring 100m long by 10m wide, to allow for 20m wide spaces for better air circulation and ultimate reduction in any odour nuisance which might have been an issue with more buildings situated close together. The layout Conceptual Site Development Plan attached as Appendix C.

Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Technology alternatives are not considered applicable to the general purpose of this Application.

Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Operational alternatives are not considered applicable to the general purpose of this Application.

The option of not implementing the activity (the 'No-Go' Option):

The "No Go" alternative is the "no-development alternative". This option of retaining the status quo, and not proceeding with the proposed layer farm development is not reasonable considering the fact that the municipality acknowledges a large unemployment rate which can be directly addressed by this development.

Preferred Alternative

(a) Provide a concluding statement indicating the preferred alternative(s), including preferred location, site, activity and technology for the development.

The proposed development of a chicken egg-layer facility and its associated infrastructure will have some impact on the environment. The findings of the Impact Assessment will see some loss of fauna and flora. Other impacts are the potential air emissions, visual and noise impacts from the construction and operations. Furthermore, many of the impacts are medium to low in the current environment and with the recommended mitigation measures the proposed development will have overall low-impacts of the environment.

The Ecological study found that Conservation Important habitats and species were not found, but if any occur aund the site they would only be only mildly threatened by the proposed development, if it adheres by the guidelines outlined in the EMPr. However, the presence of a pan/seasonal wetland 81metres south west of the project boundary fence will need to be protected from any kind of pollution and disturbance.

Since no other freshwater features were identified within the 500m zone of regulation according to Regulation GN1199 (draft regulation GN1180) of the proposed infrastructure, either a Water Use Licence (WUL) or a General Authorisation in terms of Section 21 (c) and (i) may be required, depending on the exact locality and nature of the proposed activities. However, this should be clarified with the relevant DWS officials.

The proposed chicken egg-layer facility also has a positive impact in the region's economy. The proposed development can potentially have a strong impact on local communities if they provide eggs and other related products locally. The proposed development further has the opportunity for skills development and economic opportunities for its employees during its operations.

No substantial negative impacts have been identified that, in the opinion of the Environmental Practitioner, should be considered as "fatal flaws" from the environmental perspective, and thereby necessitate substantial re-design or termination of the project. Based on the findings of this Basic Assessment, it is the opinion of the EAP that the project benefits outweigh the negative environmental impacts, and that the project will make a positive contribution to steering the area of Biva forward. Provided that the specific mitigation measures are applied effectively, it is proposed that the project receive environmental authorisation in terms of the EIA Regulations promulgated under the National Environmental Management Act (NEMA), (2014).

Furthermore, in order to avoid and/or manage the potential negative impacts, and enhance the benefits, an Environmental Management Programme (EMPr) has been compiled. The EMPr is a dynamic document that should be updated regularly and provide clear and implementable measures for the establishment and operation of the chicken egg-layer facility.

11. SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

Describe the Environmental Aspects Associated with the Proposed Development and its Alternatives, focusing on the following:

(a) Geographical, geological and physical aspects:

The study area is in Biva, north east of Jozini town, the climate of the Makhathini Flats is described as being sub-tropical. The mean annual maximum temperature is 28.6°C, with the maximum mean average occurring in January at 32.4°C. The mean annual minimum is 15.9°C with the mean minimum of 8.6°C occurring in June/July. The climate is characterised by high humidity.

The rainfall recording station at the Mzinyeni Pan is regarded as the most representative of the broader study area and was used to determine the average irrigation requirement value for the different crops in the previous application process. The 30 year mean annual rainfall at Mzinyeni Pan is 584 mm. The rainfall pattern can typically be of heavy downpours followed by long dry spells.

The only long term evaporation data available is that for Makhathini Agricultural Research Station where the average annual recorded evaporation is 1,983 mm.

The area falls within the Savanna Biome, and is broadly defined as Southern Lebombo Bushveld (Mucina & Rutherford, 2006), although it is close (ca. 500m) to the transition to Western Maputaland Clay Bushveld (Figure 2). This vegetation type's conservation status is Vulnerable. Maputaland region immediately east of the Lebombo Mountains, eastwards to the western edge of the Tembe Sandy Bushveld. From the Ndumo Game Reserve on the Mozambique border, through the Makatini Flats south to Mkhuze Game

Reserve, with a narrower extension to just east of the town Hluhluwe. It occurs primarily between altitude 20–200 m. It typically comprises a mixed but mainly compound leaved short (5 – 10 m) woodlands and wooded grasslands. It occurs on the crests, upper and mid-slopes of gently undulating terrain. This vegetation unit is dissected by two large alluvial floodplains associated with the Mkuze and Phongolo Rivers. Lowveld Riverine Forest and woodland dominate these alluvial soils and numerous small floodplains associated with smaller streams.

(b) Ecological aspects:

Will the proposed development and its alternatives have an impact on CBAs or ESAs? **If yes, please explain:** **Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.**		No	**Please Explain**
1. There are no Ecological Support Areas or Critical Biodiversity Areas within the project site.			
Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)? If yes, please explain:		No	**Please Explain**
This assessment determined that much of the proposed footprint areas are currently of fairly – very low value for biodiversity. There are areas of higher biodiversity value within the southern portion of the study area. These areas potentially support some sensitive species and ecological communities. However, these are largely out of the footprint areas, and appropriate planning can ensure that they are avoided. Overall, If those areas are adequately protected, biodiversity is unlikely to be substantially negatively affected by this development.			
Will the proposed development and its alternatives have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species? If yes, please explain:		**No**	**Please Explain**
Two Red Data reptile species are known from the area (Bates et al. 2014; IUCN 2018) (Table 6). The KwaZulu-Natal Hinge-backed Tortoise may occur within the study area, but is likely absent from most of the footprint area. Nile Crocodiles occur in the Phongola River, but are likely absent or irregular below the Phongolapoort Dam wall. Two other species in the region are localised endemics to the Lebombo Mountains. These species may occur in very rocky portions in the south of the study site, but will be absent elsewhere, including the main footprint area.			
The likely socio-economic impact if the listed activity is authorised or is not authorised;			
If authorised, the proposed development will have a positive socio-economic impact of very high significance in the construction phase, and a positive socio-economic of medium significance in the operational phase in terms of job creation. The only negative socio-economic impacts anticipated			

in the operation phase is a visual impact of low significance. The development will have a positive impact of high significance in the operational phase, in terms of increased revenue to the local economy. The implementation of the "No-Go" alternative would have a negative impact of high significance in terms of the opportunity cost of lost increased revenue to local economy, as well as a low negative impact of job losses.

(c) Social and Economic aspects:

What is the expected capital value of the project on completion?	Approx. R25 million	
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	Approx. R2.5 million	
Will the project contribute to service infrastructure?		No
Is the project a public amenity?		No
How many new employment opportunities will be created during the development phase?	Approximately 150	
What is the expected value of the employment opportunities during the development phase?	Approx. R10million	
What percentage of this will accrue to previously disadvantaged individuals?	Approximately 50%	
How will this be ensured and monitored (please explain):		
By the correct choice of the contractors and their agreement prior to the contract being awarded. In addition, non-compliance will be monitored with the issuing of penalties if applicable.		
How many permanent new employment opportunities will be created during the operational phase of the project?	Approximately 40	
How will this be ensured and monitored (please explain):		
Through prioritising employment opportunities being given to qualifying unemployed local residents		
Any other information related to the manner in which the socio-economic aspects will be impacted:		

The surrounding community would gain a marginal benefit from the development in terms of a number of temporary employment opportunities during the construction, as well as possible permanent positions once the project is developed.

Waste and Emissions

(a) Waste (including effluent) management

Will the development proposal produce waste (including rubble) during the development phase?	**YES**	
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not)?	Site clearance Construction Rubble	
During site clearance, the expected volume from clear and grub items. During the construction phase of the development, rubble would arise as a result of general breakages, off-cuts, batching of materials such as concrete and cement and the accumulation of refuse. The Construction Phase EMPr **(Appendix F)** provides a detailed description of the manner in which rubble, refuse and material handling would be managed during the construction process. As noted in the Construction phase EMP, a site camp would be located at the property frontage. A skip would be installed in the site camp to allow for the effective management of rubble and debris from the site. The site camp and skip would be hoarded off, screened and maintained in good order. All rubble and refuse arising from the site would be offloaded into the skip which would be emptied at a municipal-approved landfill site. The adequate implementation by the contractor of waste management on site, as determined by the Construction phase EMP, would be monitored by an independent Environmental Control Officer (ECO), appointed by the owner prior to works commencing. Volumes of waste generated from residential buildings after development (i.e. during the operational phase) is yet to be determined by the municipality.		
Will the development proposal produce waste during its operational phase?	YES	
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not)		
Domestic refuse and chicken manure mixed with biodegradable sawdust/hay.		

Will the development proposal require waste to be treated / disposed of on-site?		NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?		
The proposed development will not require waste to be treated or disposed of on site.		
If no, where and how will the waste be treated / disposed of? Please explain. Indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) from the proposed development to be disposed of?	Operational Phase	
4 tonnes per month of waste will be stored in 12kgs bags, waste will be a mixture of saw dust and chicken faeces, which will be stored on an onsite waste storage facility and will be sold to local farmers as crop fertilizer.		
Describe the measures that will be taken to reduce, reuse or recycle waste:		
Toolbox talks to construction staff regarding the reduction, reuse and recycling of waste. Contractors to use / source recycled material if possible. Select energy efficient appliances. Plan for waste separation and sorting on site during construction. Separate waste for recycling wherever possible. Provide recycling skips. Use offcuts where possible. Carry useful sized offcuts to the next job.		

(b) Emissions into the atmosphere

Will the development proposal produce emissions that will be released into the atmosphere?**.**		NO
If yes, does this require approval in terms of relevant legislation?		NO
If yes, what is the approximate volume(s) of emissions released into the atmosphere?		

Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:
Atmospheric emissions associated with the construction of the proposed development would be negligible odour nuisance during the operational phase of the project. Lastly, the proposed activity would result in the generation of some minor construction related dust. All construction related activities and associated equipment will be compliant with relevant emission legislation and managed in terms of the EMP attached as Appendix F.

WATER USE

(a) Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).

Municipal	Water board	✓ Groundwater	River, Stream, Dam or Lake	Other

(a) If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	200	m^3

(b) Does the development proposal require a water use permit / license from DWS?		NO
If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.		

(c) Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:
The project will be constructed with the following in mind: • Water-efficient plumbing fixtures (ultra-low flow toilets, low-flow and sensored sinks, low-flow showerheads) • Water recycling or reuse measures (Gray water and process recycling systems).

All contractors to educate workers on water usage, and ensure that there is no water wastage. No leaking taps on site.

POWER SUPPLY

(a) Describe the source of power e.g. municipality / Eskom / renewable energy source.

Municipality

TRANSPORT, TRAFFIC AND ACCESS

Describe the impacts in terms of transport, traffic and access.

Potential increase in terms of traffic during the construction of the layer farm, as well as during the operational phase. This increase traffic will also increase the noise in the surrounding area during construction of the layer farm.

NUISANCE FACTOR (NOISE, ODOUR, etc.)

Describe the potential nuisance factor or impacts in terms of noise and odours.

Potential noise impact during the construction of the proposed developments. Potential noise impact during the construction due to increase traffic and transporting of material to site. Potential increase in noise from workers and machinery during the construction of the proposed developments. Potential odour emissions from manure waste during the construction of the proposed development.

12. SECTION G: IMPACT ASSESSMENT, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION AND MONITORING MEASURES

METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES

(a) Describe the methodology used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.

The assessment methodology that will be used will be in accordance with the recent revised 2014 EIA Regulations (as amended). The significance of environmental impacts is a function of the environmental aspects that are present and to be impacted on, the probability of an impact occurring and the consequence of such an impact occurring before and after implementation of proposed mitigation measures.

Impact assessment must take into account the nature, scale and duration of effects on the environment, whether such effects are positive [beneficial] or negative [detrimental]. It is also imperative that each issue / impact is also assessed according to the project stages from planning, through construction and operation to the decommissioning phase. Where necessary, the proposal for mitigation or optimisation of an impact is noted.

The environmental impact assessment is focused on the following phases of the project namely: **Pre-Construction, Construction, and Operational Phases** only. The impacts associated with decommissioning phase are not applicable to this project, however, responsible methods of post-construction clean-up are provided in the EMPr.
As the project entails rehabilitation of existing infrastructure which will be permanent, decommissioning is not applicable to this project, however, impacts associated with post construction clean-up are considered.

The potential environmental impacts associated with the project are evaluated according to it nature, extent, duration, intensity, probability and significance of the impacts, whereby:

- ***Nature***: A brief written statement of the environmental aspect being impacted upon by a particular action or activity;
- ***Extent***: The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact. For example, high at a local scale, but low at a regional scale;
- ***Duration***: Indicates what the lifetime of the impact will be;
- ***Intensity***: Describes whether an impact is destructive or benign;

- ***Probability***: Describes the likelihood of an impact actually occurring; and
- ***Cumulative***: In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Criteria	Description			
EXTENT	**National (4)** The whole of South Africa	**Regional (3)** Provincial and parts of neighbouring provinces	**Local (2)** Within a radius of 2 km of the construction site	**Site (1)** Within the construction site
DURATION	**Permanent (4)** Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	**Long-term (3)** The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter. The only class of impact which will be non-transitory	**Medium-term (2)** The impact will last for the period of the construction phase, where after it will be entirely negated	**Short-term (1)** The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
INTENSITY	**Very High (4)** Natural, cultural and social functions and processes are altered to extent that they permanently cease	**High (3)** Natural, cultural and social functions and processes are altered to extent that they temporarily cease	**Moderate (2)** Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	**Low (1)** Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
PROBABILITY OF OCCURRENCE	**Definite (4)** Impact will certainly occur	**Highly Probable (3)** Most likely that the impact will occur	**Possible (2)** The impact may occur	**Improbable (1)** Likelihood of the impact materialising is very low

Significance is determined through a synthesis of impact characteristics. Significance is also an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

	Class	Description
+	**Any value**	Any positive / beneficial 'impact', i.e. where no harm will occur due to the activity being undertaken.
–	**Low impact (4 -6 points)**	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
	Medium impact (7 -9 points)	Mitigation is possible with additional design and construction inputs.
	High impact (10 -12 points)	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
	Very high impact (12 - 14 points)	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a "very high impact" is likely to be a fatal flaw.
Status		Denotes the perceived effect of the impact on the affected area.
Positive (+)		Beneficial impact.
Negative (-)		Deleterious or adverse impact.
Neutral (/)		Impact is neither beneficial nor adverse.
It is important to note that the status of an impact is assigned based on the *status quo* – i.e. should the project not proceed. Therefore, not all negative impacts are equally significant.		

Furthermore, the following must be considered:

- Impacts should be described both before and after the proposed mitigation and management measures have been implemented.
- All impacts should be evaluated for the construction, operation and decommissioning phases of the project, where relevant.
- The impact evaluation should take into consideration the cumulative effects associated with this and other facilities which are either developed or in the process of being developed in the region, if relevant.

- Management Actions:
- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set. This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

Monitoring:

Specialists should recommend monitoring requirements to assess the effectiveness of mitigation actions, indicating what actions are required, by whom, and the timing and frequency thereof.

Cumulative Impact:

Consideration is given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts are evaluated with an assessment of similar developments already in the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

Mitigation:

The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximise re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested. All impacts are assessed without mitigation and with the mitigation measures as suggested.

(b) Please describe the underlying assumptions.

The following assumptions and limitations are applicable to this study:

- It is assumed that the proposed development site investigated and assessed for the proposed layer farm development is technically suitable for such development.

- Site alternatives were not investigated due to the fact that this application is project specific for this specific land portion.
- The assumption is made that the information on which this report is based (specialist studies and project information, as well as existing information) is accurate and correct at the time of writing this report.
- It is assumed that the recommendations derived from this study would be included in all tender documentation and the EMP for implementation.

(c) Please describe the uncertainties.

The following assumptions and limitations are applicable to this study:

- It is assumed that the proposed development site investigated and assessed for the proposed layer farm development is technically suitable for such development.
- It is assumed that all municipal infrastructure and capacity to support the proposed layer farm is technically adequate, feasible and viable.
- Site alternatives were not investigated due to the fact that this application is project specific for this specific land portion.
- The assumption is made that the information on which this report is based (specialist studies and project information, as well as existing information) is accurate and correct at the time of writing this report.
- It is assumed that the recommendations derived from this study would be included in all tender documentation and the EMP for implementation.

Describe adequacy of the assessment methods used.

The assessment methodology that will be used will be in accordance with the recent revised 2014 EIA Regulations (as amended). The significance of environmental impacts is a function of the environmental aspects that are present and to be impacted on, the probability of an impact occurring and the consequence of such an impact occurring before and after implementation of proposed mitigation measures.

Identification, assessment and ranking of impacts to reach the proposed alternatives including the preferred alternative within the site

List the identified impacts and risks for each alternative

The preferred layout was chosen by the client as it was the closest to the original layout but reducing the impact of odour nuisance by increasing the space between buildings and reducing the number of buildings originally proposed to accommodate this increase in space. The impact assessment below will be on the preferred alternative, which is the proposed development.

During the **Design and Planning Phase** of the proposed development the following potential impacts must be mitigated for:

- Visual – ensure that the building style, and land use is in line with the surrounding land uses.

During the **construction** of the proposed development the following potential impacts are likely to occur:

- Archaeological and or heritage material could be found during the construction
- Noise from construction vehicles and construction work force
- Dust from clearing of vegetation and general construction activities
- Increased traffic during the construction phase due to construction vehicles and transportation of materials and staff to site.
- Potential positive impact on the temporary employment for local community members during construction
- Waste and litter from construction activities, which if not dealt with could cause visual impacts
- Stormwater impacts
- Erosion and loss of indigenous vegetation
- Contamination of the environment, through chemical / oil spills from construction activities and vehicles.

During the **operational phas**e of the proposed development the following potential impacts are likely to occur:

- Visual impact of the constructed layer farm
- Increased traffic due to occupancy of residents
- Odour nuisance
- Job creation for local community

No-go Alternative:	The "No Go" Alternative is considered unreasonable due to the fact that the property belongs to the Lizohamba (Pty) Ltd and has been earmarked for the purpose of agriculture in the form of a layer farm to address a unemployment in the area. With the "no go" alternative none of the impacts listed above would occur. There would however still be the potential for the loss of indigenous vegetation, as the community relies on wood fuel and could cut down trees for firewood on the property which is unfenced. If the proposed project does not proceed, increased income and economic spin-off activities will not be realised.

(a) Describe 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 can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.

Impact Phase: Planning, Design and Development							
Potential impact description: potential loss of indigenous vegetation							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	Low	High	Medium	Negative	Medium	High	High
With Mitigation	Low	High	Low	Neutral	Low	Low	High
Can the impact be reversed?			Yes - with the implementation of the mitigation measures.				
Will impact cause irreplaceable loss or resources?			No – with the implementation of the mitigation measures, the indigenous vegetation will not be lost.				

Can impact be avoided, managed or mitigated?	Yes – mitigation measures can reduce impacts.
Mitigation measures	
Cumulative Impact	

Construction Phase Impact Assessment

Impact Phase: Construction							
Potential impact description: increase in dust and erosion from clearing vegetation, earth moving activities and increase vehicle traffic.							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Can the impact be reversed?			Yes - with the implementation of the mitigation measures.				
Will impact cause irreplaceable loss or resources?			No				
Can impact be avoided, managed or mitigated?			Yes – with the implementation of mitigation measures				
Mitigation measures • Make use of existing access roads where possible. • Ensure that dust suppression techniques are implemented on all access roads							
Cumulative Impact			**No cumulative impacts are anticipated.**				

Impact Phase: Construction							
Potential impact description: Increase in noise levels during the day. These noises may be intrusive and increase annoyance with the project.							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	Medium	Low	Medium	Negative	Negative	Medium	High
With Mitigation	Medium	Low	Medium	Negative	Low	Low	High

Can the impact be reversed?	Yes – the impact will stop once construction activities stop
Will impact cause irreplaceable loss or resources?	No. The increase in noise levels can increase annoyance levels with the project but will not result in the loss of any resource or an irreplaceable loss.
Can impact be avoided, managed or mitigated?	Yes – with the implementation of mitigation measures

Mitigation measures

- Information that should be provided to the potential sensitive receptor(s) include:
  - Proposed working times;
  - How long the activity is anticipated to take place;
  - What is being done, or why the activity is taking place;
  - Contact details of a responsible person where any complaints can be lodged should there be any issue of concern.
  - When working near to potentially sensitive receptors, coordinate the working time with periods when the receptors are not at home where possible.

Technical solutions to reduce the noise impact during the construction phase include:

- Using the smallest/quietest equipment for the particular purpose. The use of smaller equipment therefore would have a significantly lower noise impact;
- Ensuring that equipment is well-maintained and fitted with the correct and appropriate noise abatement measures.
- No night time construction or construction related activities to take place.
- Construction personnel must wear proper hearing protection.
- Ensure construction personnel are provided with adequate Personal Protective Equipment (PPE), where appropriate.

Cumulative Impact	No cumulative impacts are anticipated.

Impact Phase: Construction

Potential impact description: Contamination of the environment from building rubble, chemical / oil spills, litter, portable toilets etc.							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	Low	Medium	Medium	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Can the impact be reversed?			Yes				
Will impact cause irreplaceable loss or resources?			No.				
Can impact be avoided, managed or mitigated?			Yes				
Mitigation measures ▪ Ensure all vehicles and machinery are in good working order. Drip trays should be placed under all stationary construction vehicles. ▪ Spills on soils must be cleaned up immediately and contained using oil absorbents. This should be place in hazardous waste containers. ▪ No disposal of spilled products into sewers or drains. ▪ PPE must be worn during clean-up of hazardous spills ▪ A chemical toilet must be provided for every 15 workers on site. This toilet must be secured to the ground on a level surface that is sheltered from the elements in order to prevent it from toppling over. A maintenance schedule for the removal and cleaning of these toilets must be established in order to ensure that sufficient ablution facilities for the construction staff are maintained at all times.							
Cumulative Impact			No cumulative impacts are anticipated.				

Impact Phase: Construction							
Potential impact description: Large construction vehicles and equipment will alter the character of the area, exposing visual receptors to visual impacts associated with construction. The construction activities may be perceived as an unwelcome visual intrusion.							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**

Without Mitigation	Medium	Low	Medium	Negative	Medium	High	High
With Mitigation	Medium	Low	Medium	Negative	Low	Low	High
Can the impact be reversed?	Yes – after construction activities stop						
Will impact cause irreplaceable loss or resources?	No.						
Can impact be avoided, managed or mitigated?	Yes - Partially						
Mitigation measures ▪ Avoid litter and minimise waste. Adequate waste bins to be provided on site. ▪ Ensure all waste bins have lids on them and are emptied at a registered landfill at least once a week. ▪ Demarcate and limit construction area. ▪ Workforce training to reuse, recycle and minimise waste.							
Cumulative Impact	No cumulative impacts are anticipated.						

Impact Phase: Construction							
Potential impact description: Temporary employment opportunities may be created and afforded to local people							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	High	Low	Low	Positive	High	High	High
With Mitigation	High	Low	Medium	Positive	**High**	High	High
Can the impact be reversed?	Yes – after construction activities stop						
Will impact cause irreplaceable loss or resources?	No.						
Can impact be avoided, managed or mitigated?	Yes - Partially						
Mitigation measures • Preference must be given to local people / contractors. • Maximise job creation opportunities during the construction phase.							

• Where the required skills do not occur locally, and where appropriate and applicable, ensure that relevant local individuals are trained. • Ensure that an equitable percentage allocation is provided for local labour employment as well as specify the use of small-to-medium enterprises and training specifications in the Contractors contract. • Ensure that goods and services are sourced from the local and regional economy as far as possible.	
Cumulative Impact	No cumulative impacts are anticipated.

Impact Phase: Construction							
Potential impact description: Impacts on heritage							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	Low	Low	Low	Negative	Medium	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Can the impact be reversed?			No. Impact to archaeological material is low as there are no aspects of heritage or cultural significance occurring on site.				
Will impact cause irreplaceable loss or resources?			No. Impacts to settings are non-existent or too small to have significant effect.				
Can impact be avoided, managed or mitigated?			Yes				
Mitigation measures • No aspects of heritage or cultural significance occur on site, however, should any archaeological materials or heritage resources be found during construction, all work is to be stopped immediately, area is to be cordoned off and an archaeologist contacted immediately to assess the area.							
Cumulative Impact			No cumulative impacts are anticipated.				

Impact Phase: Construction							
Potential impact description: Increased Traffic and congestion							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	Low	High	Medium	Neutral	Medium	High	High

With Mitigation	Low	High	Low	Neutral	Low	Low	High
Can the impact be reversed?	Yes – when construction ends						
Will impact cause irreplaceable loss or resources?	No.						
Can impact be avoided, managed or mitigated?	Yes- with the implementation of mitigation measures.						
Mitigation measures • During the construction phase, suitable parking areas should be created and designated for construction trucks and vehicles. • A construction supervisor should be appointed to co-ordinate construction traffic during the construction phase (by drawing up a traffic plan prior to construction). • Road barricading should be undertaken where required and road safety signs should be adequately installed at strategic points within the construction site.							
Cumulative Impact	Slight increase in traffic and congestion during the construction phase. During the operational phase, traffic will increase slightly as landowners take up occupancy of the houses.						

Operational Phase Impact Assessment

Impact Phase: Operational							
Potential impact description: Visual impact of the constructed layer farm developments							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	Medium	Medium	Medium	Negative	Medium	Medium	Medium
With Mitigation	Medium	Medium	Medium	Negative	Low	Low	Medium
Can the impact be reversed?	Yes, if the Layer farm development are decommissioned						
Will impact cause irreplaceable loss or resources?	No.						
Can impact be avoided, managed or mitigated?	Partially						

Mitigation measures • The development should not contrast with the existing architecture and style.	
Cumulative Impact	No cumulative impacts anticipated.

Impact Phase: Operational							
Potential impact description: Socio Economic In the form of job creation and increased business for the local economy.							
	Extent	**Duration**	**Severity**	**Status**	**Significance**	**Probability**	**Confidence**
Without Mitigation	High	High	Medium	Positive	High	Medium	Medium
With Mitigation	High	High	Medium	Positive	High	Medium	Medium
Can the impact be reversed?			Yes				
Will impact cause irreplaceable loss or resources?			No.				
Can impact be avoided, managed or mitigated?			Yes				
Mitigation measures • Use and support of local businesses / suppliers / contractors							
Cumulative Impact			Positive cumulative effect on the local economy				

12.1. Specialist inputs/studies, Findings and Recommendations

Provide a summary of the findings and impact management measures identified in any specialist report and an indication of how these findings and recommendations have been included in the BAR.

Ecological Impact Assessment This assessment determined that much of the proposed footprint areas are currently of fairly – very low value for biodiversity. There are areas of higher biodiversity value within the southern portion of the study area. These areas potentially support some sensitive species and ecological communities. However, these are largely out of the footprint areas, and appropriate planning can

ensure that they are avoided. Overall, if those areas are adequately protected, biodiversity is unlikely to be substantially negatively affected by this development. The following recommendations are made:

- Avoid impacting on rocky and less disturbed, well-wooded areas in the southern portion of the study area. Maximise use of existing infrastructure and highly disturbed areas.
- Areas away from the infrastructure footprints should be managed appropriately and not disturbed in order to maintain the biodiversity they support.
- During construction and operation, all efforts must be made to minimise sediment input, pollution and disturbance to areas away from the infrastructure footprint area - no waste or materials of any kind must be allowed to enter the surrounding areas during construction or operation.
- Any Nationally Protected Trees on site must be left undisturbed, or will require a permit application to Department of Fisheries and Forestry for their removal.
- The site already supports areas of alien plant infestation, and construction is likely to exacerbate this situation. An alien plant control programme (including monitoring) should be implemented for the property

Without mitigation, the proposed layer farm project will likely have a high to very high impacts on the ecological habitats. However, should the prescribed mitigation measures be implemented for the project, the associated risks are expected to reduce from High to low impact significance.

Wetland Impact Assessment

In consideration of the proposed development within the project area in relation to the receiving environment from watercourse point of view, the following can be concluded:

There are no watercourses found occurring within the project area. The proposed development will not encroach on the pan/depression wetland as per proposed plan provided by the client. The proposed development will encroach into 500m GN509 Zone of Regulation of the pan/depression wetland located on the western portion of the investigation area.

As such, activities, as stipulated in Section 21 (c) and (i) of the National Water Act, 1998 (Act No.36 of 1998), are not triggered and therefore the Risk Assessment as promulgated in

Government Notice 509 if 2016 as it relates to the National Water Act, 1998 (Act No.36 of 1998) is not applicable.

It is therefore the opinion of the freshwater ecologist that the proposed development and associated activities pose a minimal quantum of risk to the ecological integrity of the pan/depression wetland. However, it must be noted that Department of Human Settlement, Water and Sanitation (DHSWS) is the competent authority, and this opinion must be confirmed by the DHSWS.

ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

The proposed development of a chicken egg-layer facility and its associated infrastructure will have some impact on the environment. The findings of the Impact Assessment will see some loss of flora, however minimal. Other impacts are the potential air emissions, visual and noise impacts from the construction and operations of the project. Furthermore, many of the impacts are medium to low in the current environment and with the recommended mitigation measures the proposed development will have overall low-impacts of the environment.

The Biodiversity Assessment found that Conservation Important habitats and species are absent from the site of the proposed development.

The proposed development will encroach into 500m GN509 Zone of Regulation of the pan/depression wetland located on the western portion of the investigation area. As such, activities, as stipulated in Section 21 (c) and (i) of the National Water Act, 1998 (Act No.36 of 1998), are not triggered and therefore the Risk Assessment as promulgated in Government Notice 509 if 2016 as it relates to the National Water Act, 1998 (Act No.36 of 1998) is not applicable.

The proposed chicken egg-layer facility also has a positive impact in the region's economy. The proposed development can potentially have a strong impact on local industries if they provide eggs and other related products locally. The proposed development further has the opportunity for skills development and economic opportunities for its employees during its operations.

No substantial negative impacts have been identified that, in the opinion of the Environmental Practitioner, should be considered as "fatal flaws" from the environmental perspective, and thereby necessitate substantial re-design or termination of the project. Based on the findings of this Basic Assessment, it is the opinion of the EAP that the project benefits outweigh the negative environmental impacts, and that the project will make a positive contribution to the local economy. Provided that the specific mitigation measures are applied effectively, it is proposed that the project receive environmental authorisation in terms of the EIA Regulations promulgated under the National Environmental Management Act (NEMA), (2014).

Furthermore, in order to avoid and/or manage the potential negative impacts, and enhance the benefits, an Environmental Management Programme (EMPr) has been compiled. The EMPr is a dynamic document that should be updated regularly and provide clear and implementable measures for the establishment and operation of the chicken egg-layer facility.

IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr. The EMPr must be attached to this report as Appendix F.

The EMPr addresses the environmental impacts identified in this report, associated with the proposed development. The objectives of the EMPr is to provide detailed information that will advise the planning of the proposed development in order to avoid and reduce potential impacts during construction. The following management objectives are recommended:

1. Restrict all habitat loss and disturbances from construction activities to within the proposed and agreed upon site layout.
2. Adhere to law and best practice guidelines regarding the displacement of CI and medicinally important floral species.
3. Limit indiscriminate killing, persecution or hunting of fauna.
4. Regulate / limit access by potential vectors of alien plants.
5. By law, remove and dispose of Category 1b alien species on site. All Category 2 species that remain on site must require a permit.

6. Ensure that excrement, carcasses, feed, and other operational waste and hazardous materials are appropriately and effectively contained and disposed of without detriment to the environment.
7. Detect and control pest infestations before they become a problem through frequent and careful cleaning, monitoring and control.
8. Harvesting of indigenous flora for medicine, fire wood, building materials, and other purposes must be prohibited.
9. Ensure that flammable materials are stored in an appropriate safe house. Ensure that there are appropriate control measures in place for any accidental fires. If artificial burning is considered necessary to reduce risks to human and infrastructure safety from wild fires, a fire management plan should be compiled with input from an appropriate floral specialist, and diligently implemented. Annual wild fires should be strictly prohibited.
10. Limit the effects of noise associated disturbances from chickens and operational activities on sensitive fauna such as owls and medium-large mammals (especially carnivores), potentially occurring hedgehogs and large terrestrial birds.
11. A site specific Stormwater Management Plan must be designed and implemented which includes appropriate attenuation facilities on site.
12. Erosion control measures must be implemented (Including appropriate attenuation facilities).
13. Conservation orientated clauses should be built into contracts for construction personnel, complete with penalty clauses for non-compliance.
14. During the construction phase there will be increased surface water runoff and a decreased water quality (with increased silt load and pollution). Completing construction during the winter months would help mitigate the environmental impact.
16. The monitoring of the construction site must be carried out by a qualified Environmental Compliance Officer (ECO) with proven expertise in the field so as to ensure compliance to the Environmental Management Programme (EMPr)
17. All mitigation measures listed in the BAR as well as the EMPr must be implemented and adhered to.
18. Mitigation measures and strict waste management should ensure the prevention of contamination on site.

19. The Use of a borehole for water supply must be registered with the Department Human Settlements and Water and Sanitation. 20. Limit dust and ensure use of dust suppression.

- **Describe any assumptions, uncertainties, and gaps in knowledge which relate to the impact management, mitigation and monitoring measures proposed.**

Uncertainties form part of any proposed development with regards to the actual degree of impact that the development will have. Any actual and/or site-specific results will only be determined once construction of the development has commenced and the effectiveness of the measures and realised.

13. SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.	**Yes**	
If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	**Yes**	
Provide reasons for your opinion		
The proposed development will result in no unacceptable biophysical and socio-economic impacts, after mitigation. The proposed development through providing temporary and permanent employment will be beneficial and has a very high significance if authorised. The proposed project addresses a local need, as the need and desirability for the layer farm development is of high		

priority due to the lack of employment opportunities and overreliance on the SASSA social grant, thus unlocking the potential for economic growth and development.
If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.
All mitigation measures and management actions as contained in the EMPr must be implemented during the construction of the proposed development.

14. SECTION I: APPENDICES

APPENDIX		Confirm that Appendix is attached
Appendix A:	Locality map Sensitivity Maps	✓
Appendix B:	Photographs	✓
Appendix C:	Site development plan(s)	✓
Appendix D:	Specialist Reports	✓
Appendix E:	Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required	✓
Appendix F:	EMPr	✓
Appendix G:	Qualifications of EAP	✓

15. SECTION J: DECLARATIONS

I ……**Kudakwashe M Zhandire** ……., as the appointed EAP hereby declare/affirm:

- the correctness of the information provided as part of this Report;
- that all the comments and inputs from stakeholders and I&APs have been included in this Report;
- that all the inputs and recommendations from the specialist reports, if specialist reports were produced, have been included in this Report;
- any information provided by me to I&APs and any responses by me to the comments or inputs made by I&APs;
- that I have maintained my independence throughout this EIA process, or if not independent, that the review EAP has reviewed my work (Note: a declaration by the review EAP must be submitted);
- that I have throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
- I have throughout this EIA process disclosed to the applicant, the specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application;
- have ensured that information containing all relevant facts in respect of the application was distributed or was made available to I&APs and that participation by I&APs was facilitated in such a manner that all I&APs were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all I&APs were considered, recorded and submitted to the Department in respect of the application;
- have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, if specialist inputs and recommendations were produced;
- have kept a register of all I&APs that participated during the PPP; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the EAP:

Name of Company:

Baboloki Geohub and Project Managers

Date: 2021/04/05