

<u>destea</u>

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

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File Reference Number: Application Number: Date Received:

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

# Kindly note that:

- 1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
- 2. This report format is current as of **08 December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
- 3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
- 4. Where applicable **tick** the boxes that are applicable in the report.
- 5. An incomplete report may be returned to the applicant for revision.
- 6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
- 7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
- 8. No faxed or e-mailed reports will be accepted.
- 9. The signature of the EAP on the report must be an original signature.
- 10. The report must be compiled by an independent environmental assessment practitioner.
- 11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
- 12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
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- 13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
- 14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
- 15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

# SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section? YES NO If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

# 1. PROJECT DESCRIPTION

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

# **Construction Phase:**

- Transformation of undeveloped land to agri-industrial use;
- Construction of 2 new chicken houses for the concentration of chickens exceeding 5 000 chickens per facility for the production of eggs;
- Establishment of storm water management measures; and
- Establishment and installation of all associated services (e.g. electricity and water supply).

# **Operational Phase:**

- Total water consumption of 810 000 l/year/house (15 000 chickens). The water will be abstracted from existing boreholes on the farm.
- Disposal of general waste (e.g. paper, plastic, glass bottles, etc.) at the authorised landfill site in the region (i.e. Brandfort) on a regular basis;
- Storm water management such as diversion of clean storm water around the site to enter the natural drainage patterns;
- Upgrading of the existing access roads when necessary;

# Decommissioning Phase:

No Decommissioning Phase is foreseen for the proposed project. However, should the chicken houses be decommissioned in future and dependant on the end land use at the time, this phase will entail the demolishing of infrastructure and rehabilitation of the site.

# Rehabilitation:

A rehabilitation plan will be developed should the houses be decommissioned and rehabilitation be implemented.

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

Listed activity as described in GN 327	Description of project activity
Example: GN 983 Item xx xx): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a	• •

watercourse, excluding where such construction will occur behind the development setback line.	
<ul> <li>GN. 327 of the 2014 EIA regulations as amended in 2017 – Activity 5: The development and related operation of facilities or infrastructure for the concentration of – <ol> <li>More than 1000 poultry per facility in situated within an urban area, excluding chicks younger than 20 days;</li> </ol> </li> <li>More than 5000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days;</li> <li>More than 5000 chicks younger than 20 days per facility situated within an urban area; or</li> <li>More than 25 000 chicks younger than 20 days per facility situated outside an urban area.</li> </ul>	Two chicken layer houses of 15 000 chickens each will be constructed with each chicken layer house being approximately 960m <sup>2</sup> in size. The proposed site is situated outside an urban area.
<ul> <li>GN. 327 of the 2014 EIA regulations as amended in 2017 – Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for – <ul> <li>(i) The undertaking of a linear activity; or</li> <li>(ii) Maintenance purposes undertaken in accordance with a maintenance management plan.</li> </ul> </li> </ul>	An area of approximately 2 ha of transformed but partly indigenous vegetation will be cleared to construct the chicken layer houses and associated infrastructure.

# 2. FEASIBLE AND REASONABLE ALTERNATIVES

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

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

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h) of GN 982, Regulation 2014. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific

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instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

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

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

# a) Site alternatives

# Note:

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There is no feasible alternative for this project that will be assessed due to the following reasons:

**Technology:** It could be suggested that the condemned carcasses should be transported to a rendering plant. However, due to the type of egg production facilities to be used, it is not anticipated that more than two carcasses would have to be transported to a rendering plant on a weekly basis. As a medium sized rendering plant could process 12 tons per hour, it is evident that it is not economically viable to transport the carcasses to a rendering plant due to the predicted small number of mortalities. It should also be mentioned that a farmer agreed to use the carcasses to feed the lions on his farm should the number of carcasses become significant.

**Locality:** The preferred site for the establishment of the chicken layer houses is situated close to the existing electrical and water services that are present on Farm Tochgeluk 37. Due to the fact that the applicant already owns the property no other sites were considered as alternatives. In addition there will be no environmental advantage in establishing the proposed chicken layer houses on a different site on the farm as the proposed site is already degraded.

**Type**: The applicant does not intend to apply for any other activity other than the chicken layer houses on the specific site. Refer to Appendix A attached hereto for the preliminary site layout.

**Layout:** The layout of the site will be planned in such a manner to allow for proper management of storm water, minimum environmental impact and optimum use of the site.

**No-go alternative** alternative: The "no-go" alternative will be considered throughout the assessment of the proposed project.

Alternative 1 (preferred alternative)				
Description Lat (DDMMSS) Long (DDMMSS)				
Farm Tochgeluk 37, Brandfort, Free State	28° 46' 25.76"	26° 22' 02.64"		

ich will reduce the ed site on the farm structures that will acilities.		
n the proposed site s heavily degraded. e no protected or velopment can go ation measures are ted close to any ive areas.		
ternative site as no er impact on the dition the proposed shgeluk 37 which is		
Iternative 2		
	Lat (DDMMSS)	Long (DDMMSS)
e abovementioned		
Iternative 3		
	Lat (DDMMSS)	Long (DDMMSS)
Latitude (S):	Longitu	ude (E):
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	ed site on the farm structures that will acilities. In the proposed site s heavily degraded. The protected or velopment can go tion measures are ted close to any ve areas. Ternative site as no er impact on the lition the proposed hgeluk 37 which is Iternative 2 e abovementioned	ed site on the farm structures that will acilities. In the proposed site s heavily degraded. The no protected or velopment can go tion measures are ted close to any ve areas. ternative site as no er impact on the lition the proposed hgeluk 37 which is Iternative 2 Lat (DDMMSS) e abovementioned Iternative 3

• End point of the activity

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

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

# b) Lay-out alternatives

Alternative 1 (preferred alternative)				
Description	Lat (DDMMSS)	Long (DDMMSS)		
The preferred layout alternative will be as indicated in the Maps	28° 46' 25.76"	26° 22' 02.64"		
in appendix A. The area on the farm that was chosen for the				
proposed development is situated close to existing electrical and				
water facilities on the farm which will reduce costs. The				
proposed layout is situated on a flat area will little variation in				
topography which reduces the risk of runoff and subsequent				
contamination. This also makes the management and handling				
of storm water easier.				
Alternative 2				
Description	Lat (DDMMSS)	Long (DDMMSS)		
No alternative was considered				
Alternative 3				
Description	Lat (DDMMSS)	Long (DDMMSS)		
No alternative was considered				

# c) Technology alternatives:

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# Alternative 1 (preferred alternative)

The preferred technology alternative includes the connection of services with existing municipal services in the area. These include sewage and electricity. Water is obtained from existing boreholes on the farm of which the applicant has a Water Right to extract water from. All of these services are available in the area.

# Alternative 2

The alternative to the preferred technology alternative is to construct specific services infrastructure on the site for the following:

- 1. Sewage: the construction and use of septic tanks will be assessed in this report.
- 2. Electricity: the implementation of solar/renewable energy sources will be assessed in this report.
- 3. Water supply: an alternative to using groundwater will be assessed in this report.

Alternative 3

# d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives): NONE

Alternative 1 (preferred alternative)				
Alternative 2				

# Alternative 3

# e) No-go alternative

If the no-go alternative is decided on no construction will occur on the property and no environmental impacts will occur.

However, if the no-go alternative is decided on the opportunity will be lost to create temporary jobs and a positive impact on the socio-economic during the construction phase as the proposed project will provide people with direct jobs and also indirect jobs and economic gain through providing the applicant with building material and services.

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

# 3. PHYSICAL SIZE OF THE ACTIVITY

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

## Alternative:

Alternative A1<sup>1</sup> (preferred activity alternative)

## Size of the activity:

Physical footprint Of a house: 960 m<sup>2</sup>. Total site size: 2 ha to be transformed. 2 new houses will be constructed during the construction phase of the mentioned project. Please note that the proposed site has been disturbed by agricultural activities.

Alternative A2 (if any) Alternative A3 (if any)

or, for linear activities:

# Alternative:

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Alternative A1 (preferred activity alternative) Alternative A2 (if any) Alternative A3 (if any)

Length	of	the	activity:

m
m
m

<sup>&</sup>lt;sup>1</sup> "Alternative A.." refer to activity, process, technology or other alternatives.

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

# Alternative:

Alternative A1 (preferred activity alternative) Alternative A2 (if any) Alternative A3 (if any)

# 4. SITE ACCESS

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

VES	NO

Size of the site/servitude:

42.83 ha

m<sup>2</sup>

m<sup>2</sup>

m

Describe the type of access road planned:

The farm Tochgeluk 37 can be accessed from the R30 road that connects Bloemfontein and Brandfort by turning west from the R30 onto a farm road. The turnoff point is approximately 9km from Brandfort along the R30. One proceeds along the farm road for approximately 3km before reaching farm Tochgeluk 37 where the proposed development will take place. The coordinates for the site is Lat: 28°46′21.20″ S; Long: 26°22′01.34″ E.

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

# 5. LOCALITY MAP

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

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

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

The site or route plans must indicate the following:

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

# 7. SENSITIVITY MAP

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

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

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

# 8. SITE PHOTOGRAPHS

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

# 9. FACILITY ILLUSTRATION

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

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# 10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES	NO	Please explain
The area is zoned for agricultural use.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
The Free State PSDF is based upon, and promotes, an integrated and holistic approach to spatial planning and land-use management which implies that the interrelationships between economic activities and other developmental dimensions (e.g. social, financial, demographic, institutional, and infrastructural aspects), and environmental constraints and opportunities are carefully considered in accordance with a standard framework and at all applicable spheres of planning, ranging from the international to the local level.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The site is located outside the urban edge			
<ul> <li>(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).</li> </ul>	YES	NO	Please explain
The activity will not compromise the integrity of the existing IDP and SDF of the Maslionyana Local Municipality or Lejweleputswa District Municipality as it is privately operated and privately owned. Furthermore, the land is zoned for agricultural use.			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
N/A			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
The project will not compromise the Environmental Management Frame the zoning of the area is agricultural and the land is currently being used			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
N/A			

3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The zoning of the area is agricultural and the land is currently being use	d for agri	cultura	l purposes.
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
The project is not a priority to the community but could provide additional surrounding area. The proposed project will also create direct and indire residents during the construction and operational phases of the project.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
The proposed project is located outside the urban area and adequate se available for the proposed project.	ervices a	nd cap	acity are
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
The Municipalities comments will be attached in the Final Basic Assessment	ment Rep	port in a	appendix I.
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
The project is not of national concern and involves the construction of tw in the Free State Province.	vo small (	chicker	n layer houses
8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES	NO	Please explain
The current zoning of the area is agricultural and the land is currently be purposes. Therefore the location of the proposed site does favour the pr	•	•	

9. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
The site is currently empty, and the field is in a degraded condition. The	vegetatio	on has	largely been
transformed.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain
The site has a low ecological value, thus the impact on environment in the	ne area w	vill be l	imited.
The proposed project will benefit the community as it will create jobs dur operational phases.	ing the co	onstru	ction and
In addition there will be an increase in the supply of eggs to the surround	ding comr	nunitie	es which may
result in further employment opportunities.	-		
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
The area is situated outside of the urban area and is zoned for agricultur areas are already being used for similar purposes,	ral use. T	he sur	rounding
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
The proposed site is currently empty. A Public Participation Process has continued) to ensure that all the surrounding landowners are informed of any concerns regarding the project.	• ·		
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
The proposed activity is not located within the urban edge and therefore urban edge.	will not c	ompro	mise the
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain
N/A			
15. What will the benefits be to society in general and to communities?	o the lo	ocal	Please explain
The proposed project will benefit the community as it will create jobs dur	ing the co	onstru	ction and
operational phases.			
In addition there will be an increase in the supply of eggs to the surround	ding comr	nunitie	es which may
result in further employment opportunities.			
	e propos	sed	
16. Any other need and desirability considerations related to th activity?			Please explain

<ul> <li>mitigation measures to lower the impacts on the environment, social conditions and cultural herita which may arise as a result of the development. A public participation was undertaken in terms the 2014 EIA Regulations as amended in 2017.</li> <li>Consideration of environmental attributes in management and decision-making which may have significant effect on the environment will be ensured; and</li> <li>The modes of environmental management best suited to ensuring that a particular activity is pursu in accordance with the principles of environmental management set out in section 2 of the NEMA to be identified and employed.</li> <li>19. Please describe how the principles of environmental management as set out in sectior of NEMA have been taken into account.</li> <li>That pollution and degradation of the environment are avoided, or, where they cannot altogether avoided, are minimized and remedied;</li> <li>That the disturbance of landscapes and sites that constitute the nation's cultural heritage avoided, or where it cannot be altogether avoided, is minimized and re-used recycled where possible and otherwise disposed of in a responsible manner;</li> <li>That the use and exploitation of non-renewable natural resources is responsible a equitable, and takes into account the consequences of the depletion of the resource;</li> <li>That the development, use and exploitation of renewable resources and the ecosystems which they are part do not exceed the level beyond which their integrity is jeopardized;</li> <li>That a risk-averse and cautious approach is applied, which takes into account the consequences of decisions and actions;</li> <li>That negative impacts on the environment and on people's environmental rights anticipated and prevented, and where they cannot be altogether prevented, are minimized;</li> </ul>	7. How does the project fit into the National Development Plan for 2030?	Please explair
<ul> <li>set out in section 23 of NEMA have been taken into account.</li> <li>An assessment has been undertaken to evaluate potential impacts and to propose possil mitigation measures to lower the impacts on the environment, social conditions and cultural herita which may arise as a result of the development. A public participation was undertaken in terms the 2014 EIA Regulations as amended in 2017.</li> <li>Consideration of environmental attributes in management and decision-making which may have significant effect on the environment will be ensured; and</li> <li>The modes of environmental management best suited to ensuring that a particular activity is pursu in accordance with the principles of environmental management set out in section 2 of the NEMA to be identified and employed.</li> <li>19. Please describe how the principles of environmental management as set out in section of NEMA have been taken into account.</li> <li>The following principles have been taken into account:</li> <li>Avoiding or minimizing the disturbance to ecosystems;</li> <li>That pollution and degradation of the environment are avoided, or, where they cannot altogether avoided, are minimized and remedied;</li> <li>That the disturbance of landscapes and sites that constitute the nation's cultural heritage avoided, or where it cannot be altogether avoided, minimized and re-used recycled where possible and otherwise disposed of in a responsible manner;</li> <li>That the use and exploitation of non-renewable natural resources is responsible a equitable, and takes into account the consequences of the depletion of the resource;</li> <li>That the development, use and exploitation of renewable resources and the ecosystems which they are part do not exceed the level beyond which their integrity is jeopardized;</li> <li>That negative impacts on the environment and on people's environmental rights anticipated and prevented, and where they cannot be altogether prevented, are minimized and renewable resources in the consequences of decisions and ac</li></ul>	N/A – The project has no significance on the National Development Plan for 2030.	
<ul> <li>significant effect on the environment will be ensured; and</li> <li>The modes of environmental management best suited to ensuring that a particular activity is pursu in accordance with the principles of environmental management set out in section 2 of the NEMA to be identified and employed.</li> <li>19. Please describe how the principles of environmental management as set out in section of NEMA have been taken into account.</li> <li>The following principles have been taken into account:</li> <li>Avoiding or minimizing the disturbance to ecosystems;</li> <li>That pollution and degradation of the environment are avoided, or, where they cannot altogether avoided, are minimized and remedied;</li> <li>That the disturbance of landscapes and sites that constitute the nation's cultural heritage avoided, or where it cannot be altogether avoided, is minimized and remedied;</li> <li>That waste is avoided, or where it cannot be altogether avoided, minimized and re-used recycled where possible and otherwise disposed of in a responsible manner;</li> <li>That the use and exploitation of non-renewable natural resources is responsible a equitable, and takes into account the consequences of the depletion of the resource;</li> <li>That the development, use and exploitation of renewable resources and the ecosystems which they are part do not exceed the level beyond which their integrity is jeopardized;</li> <li>That a risk-averse and cautious approach is applied, which takes into account the limits current knowledge about the consequences of decisions and actions;</li> <li>That negative impacts on the environment and on people's environmental rights anticipated and prevented, and where they cannot be altogether prevented, are minimized anticipated and prevented, and where they cannot be altogether prevented, are minimized</li> </ul>		Management as
<ul> <li>The following principles have been taken into account:</li> <li>Avoiding or minimizing the disturbance to ecosystems;</li> <li>That pollution and degradation of the environment are avoided, or, where they cannot altogether avoided, are minimized and remedied;</li> <li>That the disturbance of landscapes and sites that constitute the nation's cultural heritage avoided, or where it cannot be altogether avoided, is minimized and remedied;</li> <li>That waste is avoided, or where it cannot be altogether avoided, minimized and re-used recycled where possible and otherwise disposed of in a responsible manner;</li> <li>That the use and exploitation of non-renewable natural resources is responsible a equitable, and takes into account the consequences of the depletion of the resource;</li> <li>That the development, use and exploitation of renewable resources and the ecosystems which they are part do not exceed the level beyond which their integrity is jeopardized;</li> <li>That a risk-averse and cautious approach is applied, which takes into account the limits current knowledge about the consequences of decisions and actions;</li> <li>That negative impacts on the environment and on people's environmental rights anticipated and prevented, and where they cannot be altogether prevented, are minimized and prevented, and where they cannot be altogether prevented, are minimized and prevented, and where they cannot be altogether prevented, are minimized and prevented, and where they cannot be altogether prevented, are minimized and prevented.</li> </ul>	nitigation measures to lower the impacts on the environment, social conditions an vhich may arise as a result of the development. A public participation was unde	d cultural heritage
<ul> <li>in accordance with the principles of environmental management set out in section 2 of the NEMA visco identified and employed.</li> <li>19. Please describe how the principles of environmental management as set out in section of NEMA have been taken into account.</li> <li>The following principles have been taken into account: <ul> <li>Avoiding or minimizing the disturbance to ecosystems;</li> <li>That pollution and degradation of the environment are avoided, or, where they cannot altogether avoided, are minimized and remedied;</li> <li>That the disturbance of landscapes and sites that constitute the nation's cultural heritage avoided, or where it cannot be altogether avoided, is minimized and remedied;</li> <li>That waste is avoided, or where it cannot be altogether avoided, minimized and re-used recycled where possible and otherwise disposed of in a responsible manner;</li> <li>That the use and exploitation of non-renewable natural resources is responsible a equitable, and takes into account the consequences of the depletion of the resource;</li> <li>That the development, use and exploitation of renewable resources and the ecosystems which they are part do not exceed the level beyond which their integrity is jeopardized;</li> <li>That a risk-averse and cautious approach is applied, which takes into account the limits current knowledge about the consequences of decisions and actions;</li> <li>That negative impacts on the environment and on people's environmental rights anticipated and prevented, and where they cannot be altogether prevented, are minimized and resource is anticipated and prevented, and where they cannot be altogether prevented, are minimized;</li> </ul></li></ul>		hich may have a
<ul> <li>of NEMA have been taken into account.</li> <li>The following principles have been taken into account: <ul> <li>Avoiding or minimizing the disturbance to ecosystems;</li> <li>That pollution and degradation of the environment are avoided, or, where they cannot altogether avoided, are minimized and remedied;</li> <li>That the disturbance of landscapes and sites that constitute the nation's cultural heritage avoided, or where it cannot be altogether avoided, is minimized and remedied;</li> <li>That waste is avoided, or where it cannot be altogether avoided, minimized and re-used recycled where possible and otherwise disposed of in a responsible manner;</li> <li>That the use and exploitation of non-renewable natural resources is responsible a equitable, and takes into account the consequences of the depletion of the resource;</li> <li>That the development, use and exploitation of renewable resources and the ecosystems which they are part do not exceed the level beyond which their integrity is jeopardized;</li> <li>That a risk-averse and cautious approach is applied, which takes into account the limits current knowledge about the consequences of decisions and actions;</li> <li>That negative impacts on the environment and on people's environmental rights anticipated and prevented, and where they cannot be altogether prevented, are minimized and prevented, and where they cannot be altogether prevented, are minimized and prevented, and where they cannot be altogether prevented, are minimized and prevented, and where they cannot be altogether prevented, are minimized and prevented.</li> </ul> </li> </ul>	n accordance with the principles of environmental management set out in section 2	• •
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<ul> <li>Promotion of community participation through an extensive and open public participati process with I&amp;APs</li> <li>Delivery of high quality information to government and other decision-makers in order to enable the</li> </ul>	<ul> <li>That pollution and degradation of the environment are avoided, or, when altogether avoided, are minimized and remedied;</li> <li>That the disturbance of landscapes and sites that constitute the nation's of avoided, or where it cannot be altogether avoided, is minimized and remedie</li> <li>That waste is avoided, or where it cannot be altogether avoided, minimized and remedie</li> <li>That waste is avoided, or where it cannot be altogether avoided, minimized and remedie</li> <li>That the use and exploitation of non-renewable natural resources is equitable, and takes into account the consequences of the depletion of the</li> <li>That the development, use and exploitation of renewable resources and the which they are part do not exceed the level beyond which their integrity is je</li> <li>That a risk-averse and cautious approach is applied, which takes into accurrent knowledge about the consequences of decisions and actions;</li> <li>That negative impacts on the environment and on people's environ anticipated and prevented, and where they cannot be altogether prevent and remedied.</li> <li>Promotion of community participation through an extensive and open process with I&amp;APs</li> </ul>	cultural heritage is ed; ed and re-used o r; responsible and resource; he ecosystems o copardized; count the limits o mental rights be ed, are minimized ublic participatior

# 11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act 107 of 1998	Competent authority on the project. Consultation with DESTEA regarding the project.	Department of Economic Small business development, Tourism and Environmental Affairs	1998
Occupational Health and Safety Act 85 of 1993	Comply to OHSA during construction phase	Department of Labor	1993
National Heritage Resources Act 25 of 1999	A Phase 1 Heritage and Paleontological Impact Assessment will be done and submitted to SAHRA as an area larger than 500m <sup>2</sup> will be cleared for the proposed project.	South-African Heritage Resources Agency (SAHRA)	1999
National Water Act 36 of 1998	The area will be assessed to determine the impact (if any) on water resources. DWS is included in the PPP.	Department of Water and Sanitation	1998
National Building Regulations and Building Standards Act 103 of 1977	The developer must comply with building regulations during the construction phase of the project.	National Regulator for Compulsory Specifications	1977
Conservation of Agricultural Resources Act 43 of 1983	The land is an agricultural plot which is currently used for agricultural purposes.	Department of Agriculture, Forestry and Fisheries	1983

# 12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

# a) Solid waste management

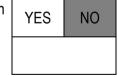
Will the activity produce solid construction waste during the construction/initiation phase?

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

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

No solid construction waste such as construction rubble will be generated during the Construction Phase of the project as there is no existing infrastructure that will be demolished. However, if any construction waste is generated, the waste will be collected and transported to an authorised landfill site in Brandfort or it will be used as filling material.

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

Will the activity produce solid waste during its operational phase? YES NO If YES, what estimated quantity will be produced per month? Each chicken layer house of 15 000 chickens will produce 11m<sup>3</sup> approximately of chicken manure/week or approximately 100m<sup>3</sup> for both chicken houses on a monthly basis.

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

# Mortalities

- Mortalities left in the chicken facilities will pose a bio-security risk and need to be removed from the facilities. Normal daily mortalities will be collected on a regular basis and sold or given to a lion farmer in the nearby vicinity.
- Mass mortalities due to disease outbreaks are usually state controlled diseases (such as Newcastle (NCDV) or Avian Influenza (HPAI)). Mass mortalities will be investigated promptly and a regional state veterinarian will be informed immediately. The farm will be placed under quarantine if a state controlled disease is diagnosed. The carcasses will be removed under a permit to a location indicated by the state veterinarian.
- Cracked eggs will be frozen and sold to local individuals who will use it.

# General waste:

- Chicken manure will be collected and used as fertilizer on the farm or surrounding farms.
- Should it be decided upon not to utilize the manure on the fields of the applicant, the applicant will sell the manure as fertilizer.
- Any non-biodegradable waste will be collected and disposed of at the landfill site in Bloemfontein.

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

# N/A

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)? Please refer to above paragraph.

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

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA? YES NO If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility? YES NO If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

# b) Liquid effluent

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

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

YES	NO
	m <sup>3</sup>
YES	NO

Will the activity produce any effluent that will be treated and/or disposed of onsite? YES NO If YES, the applicant should consult with the competent authority to determine whether it is necessary

to change to an application for scoping and EIA.

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

YES NO

If YES, provide the particulars of the facility:

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

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

The construction of the chicken houses will incorporate new designs and technology that reduces the amount of water used in the operational phase, thereby decreasing the amount of wastewater generated.

# c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions YES and dust associated with construction phase activities?

YES NO

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

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

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

The only emission will be construction related i.e. exhaust emissions and dust during the construction phase.

# d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms YES NO

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# of the NEM:WA?

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

#### Generation of noise e)

Will the activity generate noise?

If YES. is it controlled by any legislation of any sphere of government?

Describe the noise in terms of type and level:

Noise generated at the chicken layer houses will be limited to construction noise during the construction phase of the project. During the operational phase, noise will be limited to that arising from the chickens and associated with agriculture.

### 13. WATER USE

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

If water is to be extracted from groundwater, river, stream, dam, lake or any other 135 000 litres natural feature, please indicate the volume that will be extracted per month:

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?

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

### 14. ENERGY EFFICIENCY

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

- 1) The chicken layer houses were designed and will be constructed in such a manner not to require a boiler system to heat the house. Therefore, no fuel will be burned in order to heat the facility.
- 2) The applicant will make use of hatching rooms located within the primary building. The temperature, moisture and air quality are regulated within the hatching rooms in order to reduce energy consumption and increase efficiency.

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

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YES

NO

YES	NO
YES	NO

Refer to the above.

A technology alternative is to make use of renewable energy sources for the generation of electricity. This will consist of solar panels. However, the development will require large amounts of panels to generate enough electricity for the proposed chicken layer houses as they make use of relatively high amounts of electricity. This would then involve the construction of these solar panels on other open spaces which will result in the loss and/or degradation of further vegetation. In addition, the cost of implementing solar panels and the maintenance of such a large system will be very high. This will require the appointment of a specialist to constantly maintain the system which will incur further costs. Lastly the chicken layer houses require strict temperature, moisture and air quality regulation which requires a constant energy-supply which solar panels often fail to do.

# SECTION B: SITE/AREA/PROPERTY DESCRIPTION

# Important notes:

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

Section B Copy No. (e.g. A):



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

3. Has a specialist been consulted to assist with the completion of this section? YES NO If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property	Province	Free State					
description/physi	District	Lejweleputswa District Municipality					
cal address:	Municipality						
	Local Municipality	Masilonyana Metro Municipality					
	Ward Number(s)	47					
	Farm name and	Reminder of Farm Tochgeluk 37					
	number						
	Portion number 0 (Remaining Extent)						
	<b>SG Code</b> F006000000003700000						
Where a large number of properties are involved (e.g. linear activities), p attach a full list to this application including the same information as indi above.							
Current land-use zoning as per local municipality IDP/records:	Agricultural use						

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

Is a change of land-use or a consent use application required?

YES NO

# 1. GRADIENT OF THE SITE

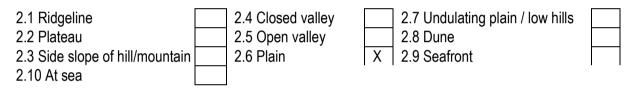
Indicate the general gradient of the site.

# Alternative S1:

•					
1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
					than 1:5
(if any):					
1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
					than 1:5
(if any):			•		
1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
					than 1:5
	1:50 – 1:20 (if any): 1:50 – 1:20 (if any):	1:50 – 1:20       1:20 – 1:15         (if any):       1:20 – 1:15         (if any):       1:20 – 1:15	1:50 - 1:20       1:20 - 1:15       1:15 - 1:10         (if any):       1:50 - 1:20       1:20 - 1:15       1:15 - 1:10         (if any):       1:50 - 1:20       1:20 - 1:15       1:15 - 1:10	1:50 - 1:20 $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ (if any): $1:50 - 1:20$ $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ (if any):	1:50 - 1:20 $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ $1:7,5 - 1:5$ (if any): $1:50 - 1:20$ $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ $1:7,5 - 1:5$ (if any):

# 2. LOCATION IN LANDSCAPE

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



# 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the

project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

# 4. GROUNDCOVER

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

Natural veld - good condition <sup>E</sup>	Natural veld with scattered aliens <sup>E</sup>	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup>	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

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

Note:

Please refer to the ecological assessment in Appendix D

# 5. SURFACE WATER

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

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

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

# 6. LAND USE CHARACTER OF SURROUNDING AREA

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

The area is zoned for agricultural use with the nearest town being Brandfort approximately 12km from the proposed site along the road.

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

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

N/A

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

N/A

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

N/A

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

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO
Core area of a protected area?	YES	NO
Buffer area of a protected area?	YES	NO
Planned expansion area of an existing protected area?	YES	NO

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Existing offset area associated with a previous Environmental Authorisation?	YES	NO
Buffer area of the SKA?	YES	NO

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

# 7. CULTURAL/HISTORICAL FEATURES

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

N/A

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

Dr. Lloyd Rossouw recommended that the site be exempted from a Phase 1 Heritage Impact Assessment as the potential archaeological impact at the site is considered to be non-existent. According to Dr. Rossouw the likelihood of palaeontological impact on bedrock sediments underneath the agricultural overburden is considered to be extremely low. The exemption letter is attached in Appendix D.

Will any building or structure older than 60 years be affected in any way? Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES	NO
YES	NO

NO

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

# 8. SOCIO-ECONOMIC CHARACTER

# a) Local Municipality

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

Level of unemployment:

Level of unemployment is 38.8% in Masilonyana Local Municipality with youth unemployment being 49.8% (Stats SA 2011)

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Economic profile of local municipality:

Masilonyana Local municipality, according to Cenusus 2011, has a total population of 63 334. Of this total population, a total of 11 406 people are employed while 2 763 are discouraged work-seekers. According to Census 2011, 7 227 people are unemployed; making the unemployment rate stand at 37%. Of the 9 661 economic active youth aged 15–34, 4841 are employed and 4820 are unemployed.

Level of education:

0.6% of the population have a higher education, 10% completed secondary school and 32.1% have some secondary schooling. 7% have completed primary school while 42.6% have some primary school experience. 4% have no schooling experience (Stats SA 2011).

# b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R ± 5 Million			
What is the expected yearly income that will be generated by or				
as a result of the activity? Note: Employees at the ch				
	houses is also employed	on the		
	farm and will be paid for w	/ork		
	done on the farm too.			
Will the activity contribute to service infrastructure?	YES	NO		
Is the activity a public amenity?	YES	NO		
How many new employment opportunities will be created in the	Outside contractors is unk	known.		
development and construction phase of the activity/ies?	Some local people will be			
	employed during construc	tion		
What is the expected value of the employment opportunities	Unknown:			
during the development and construction phase?	The outside contractor wil	l be		
	responsible to pay his wor	rkers.		
What percentage of this will accrue to previously disadvantaged	95%			
individuals?				
How many permanent new employment opportunities will be	± 4			
created during the operational phase of the activity?				
What is the expected current value of the employment	± R1.5 miliion			
opportunities during the first 10 years?				
What percentage of this will accrue to previously disadvantaged	95%			
individuals?				

# 9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS

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Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

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

Systemati	c Biodiversi	ty Planning	Category	If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	

# b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	5%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	5%	
Degraded (includes areas heavily invaded by alien plants)	40%	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	%50	The land where the proposed development will take place has been largely transformed and was used by the applicant for grazing or cultivating. Therefore the vegetation is no longer representative of the indigenous vegetation in the area

# c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems							
Ecosystem threat	Critical		· ·	ling rivers,					
status as per the National	Endangered	depressi	Estuary		Coastline				
Environmental	Vulnerable	unchanneled wetlands, flats, seeps pans, and artificial			⊏ຣແ	Jary	Cuas	Coastime	
Management:	Least								
Biodiversity Act (Act No. 10 of 2004)	Threatened	YES	NO	UNSURE	YES	NO	YES	NO	

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

The site is dominated by scattered- to slightly undulating plains and hills and is mainly covered by low-tussock grasslands with an abundant karroid element. Also found within these plains is the dominance of Themeda triandra (Red grass). The occurrence of this vegetation type can be attributed to the erratic rainfall pattern in the area. This rainfall pattern, together with heavy grazing, also increases the occurrence of Elionurus muticus (Lemon Grass), Cymbopogon pospischilii (Bitter Turpentine Grass) and Aristida congesta (Aapstertsteekgras) in the area.

The site is in a degraded condition and the vegetation has been largely transformed due to previous land use activities. The natural vegetation on the site has been transformed to a large degree and is no longer considered a representative example of this vegetation type. The site is not located near any watercourse or other water body.

The site does not contain any wetlands, drainage lines or any other water related systems. The nearest significant watercourse is the Bloemspruit which is located approximately 1.2 km north of the site. According to the National Freshwater Ecosystems Priority Areas (NFEPA) there are also no wetlands, rivers or other water bodies near the site.

The site does not form part of an Important Bird Area (IBA) or a Strategic Water Source Area (SWSA). There are also no National Protected Areas Expansion Strategy (NPAES) Focus Areas near the site. The area around the site does not contain any formal or informal protected areas (Van Rensburg, 2018).

Please refer to the Ecological Assessment in Appendix D.

# SECTION B: SITE/AREA/PROPERTY DESCRIPTION

# Important notes:

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

Section B Copy No. (e.g. A):

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

3. Has a specialist been consulted to assist with the completion of this section? YES NO If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property	Province	
description/physi	District	
cal address:	Municipality	
	Local Municipality	
	Ward Number(s)	
	Farm name and number	
	Portion number	
	SG Code	
	•	of properties are involved (e.g. linear activities), please

attach a full list to this application including the same information as indicated above.

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

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

Is a change of land-use or a consent use application required?

YES	<b>0</b>
-----	----------

# 1. GRADIENT OF THE SITE

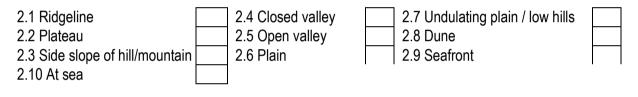
Indicate the general gradient of the site.

# Alternative S1:

•					
1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
					than 1:5
(if any):					
1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
					than 1:5
(if any):			•		
1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
					than 1:5
	1:50 – 1:20 (if any): 1:50 – 1:20 (if any):	1:50 – 1:20       1:20 – 1:15         (if any):       1:20 – 1:15         (if any):       1:20 – 1:15	1:50 - 1:20       1:20 - 1:15       1:15 - 1:10         (if any):       1:50 - 1:20       1:20 - 1:15       1:15 - 1:10         (if any):       1:50 - 1:20       1:20 - 1:15       1:15 - 1:10	1:50 - 1:20 $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ (if any): $1:50 - 1:20$ $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ (if any):	1:50 - 1:20 $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ $1:7,5 - 1:5$ (if any): $1:50 - 1:20$ $1:20 - 1:15$ $1:15 - 1:10$ $1:10 - 1:7,5$ $1:7,5 - 1:5$ (if any):

# 2. LOCATION IN LANDSCAPE

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



# 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the

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project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

# 4. GROUNDCOVER

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

Natural veld - good condition <sup>E</sup>	Natural veld with scattered aliens <sup>E</sup>	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup>	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

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

# 5. SURFACE WATER

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

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

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



# 6. LAND USE CHARACTER OF SURROUNDING AREA

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

The area is zoned as Agricultural plots.

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

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

N/A

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

N/A

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

N/A

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

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

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

# 7. CULTURAL/HISTORICAL FEATURES

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

YES NO

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

Will any building or structure older than 60 years be affected in any way?YEIs it necessary to apply for a permit in terms of the National Heritage ResourcesYEAct, 1999 (Act 25 of 1999)?YE

YES	NO
YES	NO

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

# 8. SOCIO-ECONOMIC CHARACTER

# a) Local Municipality

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

Level of unemployment:

Economic profile of local municipality:

Level of education:

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# b) Socio-economic value of the activity

What is the expected capital value of the activity on completion? What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development and construction phase of the activity/ies?

What is the expected value of the employment opportunities during the development and construction phase?

What percentage of this will accrue to previously disadvantaged individuals?

How many permanent new employment opportunities will be created during the operational phase of the activity?

What is the expected current value of the employment opportunities during the first 10 years?

What percentage of this will accrue to previously disadvantaged individuals?

r		
	YES YES	NO NO
	YES	NO
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# 9. BIODIVERSITY

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

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

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

# b) Indicate and describe the habitat condition on site

Habitat Condition Percentage of	Description and additional Comments and
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	habitat condition class (adding up to 100%)	Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural		
Near Natural (includes areas with low to moderate level of alien invasive plants)		
Degraded (includes areas heavily invaded by alien plants)		
Transformed (includes cultivation, dams, urban, plantation, roads, etc)		

# c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

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

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

# SECTION B: SITE/AREA/PROPERTY DESCRIPTION

# Important notes:

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

Section B Copy No. (e.g. A):

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

3. Has a specialist been consulted to assist with the completion of this section?	YES	NO
If YES, please complete the form entitled "Details of specialist and declaration of i	nterest" f	or each
specialist thus appointed and attach it in Appendix I. All specialist reports must	be conta	ained in
Appendix D.		

Property	Province
description/physi	District
cal address:	Municipality
	Local Municipality
	Ward Number(s)
	Farm name and
	number
	Portion number
	SG Code
	Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.
Current land-use zoning as per local municipality IDP/records:	
	In instances where there is more than one current land-use zoning, please

attach a list of current land use zonings that also indicate which portions each

Is a change of land-use or a consent use application required?

use pertains to, to this application.

YES NO

# 10. GRADIENT OF THE SITE

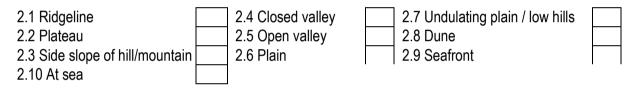
Indicate the general gradient of the site.

# Alternative S1:

Alternative OI	•										
Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper					
						than 1:5					
Alternative S2 (if any):											
Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper					
						than 1:5					
Alternative S3 (if any):											
Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper					
						than 1:5					

# 11. LOCATION IN LANDSCAPE

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



# 12. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the

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project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

### 13. GROUNDCOVER

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

Natural veld - good condition <sup>E</sup>	Natural veld with scattered aliens <sup>E</sup>	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup>	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

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

Note:

As indicated earlier in the report this property is not owned by the applicant and therefore will not be assessed and specialist studies will not be conducted on the property. Due to costs associated with the proposed development occurring on this property this alternative will not be considered by the applicant.

#### 14. SURFACE WATER

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

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

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

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# 15. LAND USE CHARACTER OF SURROUNDING AREA

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

The area is zoned as Agricultural plots.

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

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

The site is located 450m away from the railway line. The construction and operational phases and related activities will not have any significant impacts, if any on the railway line.

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

N/A

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

N/A

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

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO
Core area of a protected area?	YES	NO
Buffer area of a protected area?	YES	NO

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Planned expansion area of an existing protected area?		NO
Existing offset area associated with a previous Environmental Authorisation?	YES	NO
Buffer area of the SKA?	YES	NO

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

#### 16. CULTURAL/HISTORICAL FEATURES

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

Although a specialist has not been appointed to assess the site it is assumed that some of the structures on the site is older than 60 years and will require a permit to be demolished.

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

A specialist investigation will not be conducted as this property is not owned by the applicant. Please refer to the above discussion.

YES

YES

NO

NO

Will any building or structure older than 60 years be affected in any way? Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

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

#### 17. SOCIO-ECONOMIC CHARACTER

#### a) Local Municipality

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

Level of unemployment:

Economic profile of local municipality:

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Level of education:

#### b) Socio-economic value of the activity

What is the expected capital value of the activity on completion? What is the expected yearly income that will be generated by or as a result of the activity? Will the activity contribute to service infrastructure? Is the activity a public amenity? How many new employment opportunities will be created in the development and construction phase of the activity/ies? What is the expected value of the employment opportunities during the development and construction phase? What percentage of this will accrue to previously disadvantaged individuals? How many permanent new employment opportunities will be created during the operational phase of the activity? What is the expected current value of the employment opportunities during the first 10 years? What percentage of this will accrue to previously disadvantaged

individuals?

	NO
YES YES	NO NO
YES	NO
•	

#### 18. BIODIVERSITY

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

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

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

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Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural		
Near Natural (includes areas with low to moderate level of alien invasive plants)		
Degraded (includes areas heavily invaded by alien plants)		
Transformed (includes cultivation, dams, urban, plantation, roads, etc)		

#### b) Indicate and describe the habitat condition on site

#### c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems						
Ecosystem threat	Critical		· ·	ding rivers,				
status as per the National	Endangered		depressions, channelled and		Estuary		Coastline	
Environmental	Vulnerable	<ul> <li>unchanneled wetlands, flats,</li> <li>seeps pans, and artificial wetlands)</li> </ul>						
Management:	Least							
Biodiversity Act (Act No. 10 of 2004)	Threatened	YES	NO	UNSURE	YES	NO	YES	NO

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

# **SECTION C: PUBLIC PARTICIPATION**

#### 1. ADVERTISEMENT AND NOTICE

Publication name	Courant and Bloemnuus		
Date published	2 <sup>nd</sup> August 2018		
Site notice position	Latitude	Longitude	
-	28° 46'21.29"S	26°22'01.34"E	
	28° 46'28.14"S	26°22'01.32"E	
Date placed	31 July 2018		

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

#### 2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 982

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 982

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Mr HansWilli Wiplinger	Adjacent Landowner	083 303 0297
	Farm Jakkalsdraai 325	
	Farm Bosjesvlakte 548	
Mr Gert Coetzee	Adjacent Landowner	082 414 5177
	Farm Scotland 93	info@netauctions.co.za
Mr Williem Michiel Maas	Adjacent Landowner	083 440 01191
Snr	Farm Skaapweiding 556	nfo@tri-hunt.co.za

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

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

#### 3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
No Issues were raised for the first commenting	No comments were received
period.	

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#### 4. COMMENTS AND RESPONSE REPORT

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

#### 5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Orga n of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Free State Department of Economic Small Business Development, Tourism and Environmental Affairs	Mrs. Grace Mkhosana	051 400 4843	051 400 4842	Mkhosana@detea.fs.g ov.za	Private Bag X20801 Bloemfontein 9300
Department of agriculture, forestry & fisheries	Mr. Jack Morton	051 861 8369	086 234 6758	jack@fs.agric.za	P/Bag X01 Glen 9360
Department of Water Affairs	Dr Ntili	051 405 9265	051 447 1901	MdhluliS2@dwa.gov.z a	PO Box 528 Bloemfontein 9300
SAHRA	Mr. Andrew Salomon	021 462 4502	021 462 4549	asalomon@sahra.org. za	P.O. Box 4637 Cape Town 8001
Mr Puletsekedi (Municipal Manager)	Masilonyana Local Municipality	073 930 3643		pitso@masilonyana.co .za	PO Box 8 Theunissen 9410
Ward Councillor, Ward 2 Ms. Boniswa Mokwena	Masilonyana Local Municipality	073 999 2254		tshediso@masilonyan a.co.za / tshedisomolete@web mail.co.za	PO Box 8 Theunissen 9410
Mr. Dewald Kirsten (Manager Environmental Health Services)	Lejweleputswa District Municipaility	057 391 8959		dewad@lejwe.co.za	PO Box 2163 Welkom 9460

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

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

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#### 6. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

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

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

# SECTION D: IMPACT ASSESSMENT

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

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

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

Activity	Impact summary	Significance	Proposed mitigation	
Alternative 1 (	preferred alternative)			
Construction Phase				
Clearance of vegetation and removal and stockpiling of topsoil	<ul> <li>Direct impacts: <ul> <li>Vegetation clearance and loss</li> <li>Removal of topsoil and potential loss thereof</li> <li>Possible change in the natural storm water drainage pattern</li> <li>Noise elevation due to construction activities</li> <li>Nuisance due to dust generation</li> </ul> </li> <li>Indirect impacts: <ul> <li>Potential erosion of exposed soil</li> <li>Possible dumping of construction rubble and general waste on site</li> <li>Petrochemical spills may take place that may lead to contamination of surface and groundwater</li> <li>Deterioration of the access road as a result of an increase of construction vehicles to the site.</li> <li>Loss of archaeological significant artefacts.</li> </ul> </li> </ul>	Low - Negative - Negative -	<ul> <li>Clearance of Vegetation will be limited to the site under construction.</li> <li>The surface of the site will be levelled to ensure free-draining to prevent ponding of surface water.</li> <li>Storm water measures such as channels, diversion berms, etc will be constructed around the site in order to limit and/or prevent erosion.</li> <li>A speed limit will be enforced on construction vehicles.</li> <li>Construction will be limited to daytime to limit any disturbance to neighbouring landowners.</li> <li>Dust control measurements will be investigated if nuisance dust generation proofs to be problematic</li> <li>SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> <li>All building rubble will be removed by the contractor on</li> </ul>	

Activity	Impact summary	Significance	Proposed mitigation
			<ul> <li>a regular basis and disposed of at an authorised landfill site in the area or used as filling material.</li> <li>Receptacles should be placed on site for the collection of general waste. These receptacles should be emptied on a regular basis and waste be disposed of at the authorised landfill site in the area.</li> </ul>
	<i>Cumulative impacts:</i> None	Low - Negative	It is imperative that topsoil be stockpiled correctly and protected and returned to the site after construction to be used in gardens.
Construction of infrastructure and buildings	<ul> <li>Direct impacts:</li> <li>Possible change in the natural storm water drainage pattern</li> <li>Noise elevation due to construction activities</li> <li>Nuisance due to dust generation</li> <li>Unearthing of significant heritage artefacts</li> </ul>	Low - Negative	<ul> <li>The site will be levelled in such a manner to allow storm water to be diverted around the site and drain into the surrounding storm water channels.</li> <li>Storm water measures such as channels, diversion berms, etc will be constructed on the site in order to limit and/or prevent erosion.</li> <li>A speed limit will be enforced on construction vehicles.</li> <li>Construction will be limited to daytime to limit any disturbance to neighbouring landowners.</li> <li>Dust control measurements will be investigated if nuisance dust generation proofs to be problematic</li> <li>SAHRA will be notified should traces of any paleontological heritage be found during construction.</li> <li>All building rubble will be removed by the contractor on a regular basis and disposed of at an authorised landfill site in the area or used as filling material.</li> <li>Receptacles should be emptied</li> </ul>

Activity	Impact summary	Significance	Proposed mitigation
			on a regular basis and waste be disposed of at the authorised landfill site in the area
Operational Phase	<ul> <li>Direct impacts: <ul> <li>Potential pollution to storm water if proper storm water management measures are not implemented.</li> <li>Potential water pollution may occur if manure from the operation is not managed appropriately.</li> <li>Mortalities left in the chicken facilities will pose a bio-security risk and need to be removed from the facilities.</li> <li>Possible dumping of damaged eggs on site may result in health risks and bad odours.</li> <li>Possible dumping of condemned carcasses on site may result in health risks and bad smelling odours.</li> <li>Possible dumping of general waste on site.</li> <li>Potential pollution to the surrounding environment due to raw sewage spills.</li> <li>Pests (i.e. rats and flies) may become problematic at the chicken houses.</li> </ul> </li> </ul>	Low - Negative	<ul> <li>area.</li> <li>The storm water management measures that will be constructed and implemented during construction will be maintained and repaired when necessary.</li> <li>The effluent (wash water) from the process will be insignificant as it is in very small quantities.</li> <li>Damaged eggs will be frozen and sold to local bakeries or people. This will ensure that less material is wasted, and limit odours produced during the operational phase of the proposed activities.</li> <li>Mortalities left in the chicken facilities will pose a biosecurity risk and need to be removed from the facilities. Normal daily mortalities will be collected on a regular basis and given to a lion farmer in the nearby vicinity.</li> <li>Mass mortalities due to disease outbreaks are usually state controlled diseases (such as Newcastle (NCDV) or Avian Influenza (HPAI)). Mass mortalities will be investigated promptly and a regional state veterinarian will be informed immediately. The farm will be placed under quarantine if a state controlled disease is diagnosed. The carcasses will be removed under a permit to a location indicated by the state veterinarian.</li> <li>The chicken manure will be recycled and used as fertilizer.</li> <li>General waste (i.e. paper, plastic, glass bottles, etc.) will be collected in receptacles on site. These receptacles will be emptied and the waste</li> </ul>
	<ul> <li>Indirect impacts:</li> <li>Possible generation of bad smelling odour if proper waste management is not implemented.</li> <li>Deterioration of the access road as a result of increased traffic to the site.</li> </ul>	Low - Negative	

Activity	Impact summary	Significance	Proposed mitigation
			<ul> <li>disposed of at an authorised landfill site on at least a weekly basis (or when necessary).</li> <li>The access road will have to be upgraded when necessary.</li> <li>Toilets will be supplied to employees to be used.</li> </ul>
	<i>Cumulative impacts:</i> None		
Decommission ing and Closure Phase	<b>Direct Impacts</b> No Decommissioning Phase is foreseen for the proposed project.		- Should the houses be decommissioned in future, a Rehabilitation Plan dependant on the end land use will be developed and be submitted to the Department for approval.
Technology alternet	ernatives native – Connecting of services (i.e. elect	trical, sewage) t	o municipal lines
<b>Construction P</b>		· • •	•
Activities will be the same as the site alternatives	<i>Impacts:</i> Potential impacts will be the same as indicated in the site alternative as the activities will occur simultaneously.		Refer to site alternative mitigation.
Alternative 2 –	Solar energy and septic tanks	1	
Activities will be the same as the site alternatives	<ul> <li>Direct impacts: Impacts associated will be the same as indicated at the site alternatives with the addition of the following impacts:</li> <li>Septic tanks will require very high levels of maintenance and will result in contamination of soil and groundwater as a result of leakage.</li> <li>The site does not have capacity to construct and manage a septic tank system. This will require the pumping out of sewage on a daily basis and may result in overfilling and overflowing of the system which will result in contamination of soil and groundwater.</li> <li>Solar panels will result in a negative aesthetic impact on surrounding residents as a result of the industrial look thereof.</li> </ul>	Moderate negative	<ul> <li>Regular monitoring of septic tanks and sewer system to prevent any contamination of groundwater and soil.</li> <li>Implementation of a ground and surface water monitoring programme to monitor if there are any contamination of the sources.</li> </ul>
	Indirect impacts: - The use of renewable energy will	Moderate Negative	

Activity	Impact summary	Significance	Proposed mitigation
	<ul> <li>reduce the carbon footprint of the development.</li> <li>Solar panels are very expensive and will result in the units being sold for a much higher price. The housing planned for this area is not high cost housing.</li> <li><i>Cumulative impacts:</i></li> <li>The use of renewable energy will reduce the carbon footprint of the development.</li> </ul>		
No-go option			
	Direct impacts: None Indirect impacts: Although no environmental impacts will occur if the no-go alternative is decided on, the opportunity to provide fresh eggs to the area and create a drop in the cost of eggs, which will have a positive influence in the society, will be lost. The opportunity to provide people from the local community with job opportunities in the operational phase will also be lost.		
	<i>Cumulative impacts:</i> None		

A complete impact assessment in terms of Regulation 19(3) of GN 982 must be included as Appendix F.

# 2. ENVIRONMENTAL IMPACT STATEMENT

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

# Alternative A (preferred alternative)

The likelihood of the expected impacts actually occurring will be small and limited if all the recommended mitigation measures are implemented throughout all the phases of the project. Impacts that will be associated with the Construction Phase will be temporary of nature. Although the activities that will be associated with the Operational Phase will be permanent, the potential impacts expected to be associated with this phase will be temporary and local in nature if the recommended mitigation measures are implemented. If proper management of any waste (including general and

animal waste) and pests (e.g. flies and rats) is implemented, the likelihood of the potential impacts actually occurring will be low.

In conclusion, if all the recommended measures are implemented, the significance of the impacts expected to be associated with the proposed houses will be low.

#### Alternative B

N/A

Alternative C

N/A

#### No-go alternative (compulsory)

No environmental impact will occur as a result of the no-go alternative. However, the opportunity to create an opportunity for chicken egg farmers in the area to lower costs and provide people from the local community with job opportunities that will be associated with the Operational Phase will be lost.

# SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES	NO
YES	NO

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

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

In addition to the recommended mitigation and management measures described in Part 2 of Section D, the following conditions are recommended:

Specific

• No operation will commence without the necessary Environmental Authorisation.

#### General

- Measures to manage storm water and waste (general and condemned carcasses) will be implemented and maintained to limit and/or prevent erosion, pollution and disease.
- Receptacles should be placed on site for the collection of general waste. These
  receptacles should be emptied on a regular basis and waste be disposed of at an
  authorised landfill site in Bloemfontein.
- All condemned carcasses will be placed in leak proof freezers and managed appropriately until removed from site.
- No construction and / or any other waste will be dumped in the veld or on site.
- SAHRA will be notified should traces of any paleontological heritage be found during construction.
- Temporary toilets will be placed on site during the construction phase and any sewage should be managed appropriately and should not be disposed of on site or the surrounding environment.

Is an EMPr attached?

YES NO

The EMPr must be attached as Appendix G.

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

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

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

"JWALE KE NAKO YA KOTULO, RE A KUBELETSA"

www.edtea.fs.gov.za

Richard Deneys Williamson

NAME OF EAP

SIGNATURE OF EAP

DATE

#### **SECTION F: APPENDIXES**

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

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