



Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

List of all organs of state and State Departments where the draft report has been submitted, their full contact details and contact person

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
 2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
 3. **A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**
 4. 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.
 5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
 6. An incomplete report shall be rejected.
 7. 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.
 8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
 9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
 10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
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DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

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

Yes

Is a list of State Departments referred to above been attached to this report?

1. Gauteng Department of Agriculture and Rural Development (GDARD)
2. Department of Environmental Affairs and Tourism (DEAT)
3. Department of Water Affairs (DWA)
4. Department of Health (DoH)

if no, state reasons for not attaching the list.

N/A

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

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

Application for a Basic Assessment for a Proposed Poultry Farm on Walkers Fruit Farm.

Select the appropriate box

The application is for an upgrade of an existing development

☐

The application is for a new development

☒

Other, specify

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

YES NO

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

The National Water Act (Act of 1998)

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

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

YES	NO
YES	NO

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:

Administering authority:

Promulgation Date:

National Environmental Management Act No. 107 of 1998 as amended.	National & Provincial	27 November 1998
National Water Act (Act No. of 1998) as amended.	National & Provincial	20 August 1998
GNR. 544, Activity No. 5, 8 & 23	National & Provincial	18 June 2010

3. ALTERNATIVES

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

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

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

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
1	Proposal	The application is for the construction of chicken broilers and a housing unit with a combined footprint of less than 6 hectors of the property. The rest of the property will be left in its natural state. The provisional layout of the proposed development is provided in Figure 1 in Appendix A.
2	Alternative 1	N/A
3	Alternative 2	N/A

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

This is not applicable as the receiving environment is the same.
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NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

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

Proposed activity	Size of the activity: 6 hectares
Alternatives:	
Alternative 1 (if any)	6 hectares
Alternative 2 (if any)	0 hectares
	Ha/ m ²

or, for linear activities:

Proposed activity	Length of the activity: N/A
Alternatives:	
Alternative 1 (if any)	N/A
Alternative 2 (if any)	N/A
	k/km

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

Proposed activity	Size of the site/servitude: 10 hectares
Alternatives:	
Alternative 1 (if any)	10 hectares
Alternative 2 (if any)	10 hectares
	Ha/m ²

5. SITE ACCESS

Proposal

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

YES	NO
N/A m	

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Describe the type of access road planned:

N/A

Include the position of the access road on the site plan.

Alternative 1

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

YES	NO
N/A m	

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

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan.

Alternative 2

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

YES	NO
N/A m	

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

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan.

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

Section A 6-8 has been duplicated

0

Number of times

(only complete when applicable)

6. SITE OR ROUTE PLAN

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

- the scale of the plan, which must be at least a scale of 1:2000 (scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

7. SITE PHOTOGRAPHS

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

8. FACILITY ILLUSTRATION

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

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

Further:

Instructions for completion of Section B for linear activities

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

Section B has been duplicated for sections of the route N/A times

Instructions for completion of Section B for location/route alternatives

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

Section B has been duplicated for location/route alternatives 0 times
(complete only when appropriate)

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

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

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

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

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

1. PROPERTY DESCRIPTION

Property description:

Erf 255 of the Walkers Fruit Farms Small Holdings of Portion A of Portion of the Farm Varkensfontein No. 53

(Farm name, portion etc.)

2. ACTIVITY POSITION

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

Alternative:

Latitude (S):	Longitude (E):
26°30'39.013"S	27°57'41.89"E

In the case of linear activities:

Alternative:

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

Latitude (S):	Longitude (E):
N/A °	N/A °
N/A °	N/A °
N/A °	N/A °

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

Addendum of route alternatives attached

N/A

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

Shallow water table (less than 1.5m deep)
Dolomite, sinkhole or doline areas

Seasonally wet soils (often close to water bodies)
Unstable rocky slopes or steep slopes with loose soil
Dispersive soils (soils that dissolve in water)
Soils with high clay content (clay fraction more than 40%)
Any other unstable soil or geological feature
An area sensitive to erosion

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

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

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

YES	NO
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
N/A °	N/A °

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

YES	NO
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
N/A °	N/A °

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

YES	NO
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
N/A °	N/A °

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?

YES	NO
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Please note: The Department may request specialist input/studies in respect of the above.

7. GROUND COVER

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

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

Natural veld - good condition % = 97.70	Natural veld with scattered aliens % = 2	Natural veld with heavy alien infestation % = 0	Veld dominated by alien species % = 0	Landscaped (vegetation) % = 0
Sport field % = 0	Cultivated land % = 0	Paved surface (hard landscaping) % = 0	Building or other structure % = 0.25	Bare soil % = 0.5

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

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

YES	NO
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If YES, specify and explain:

N/A		
Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.	YES	NO

If YES, specify and explain:

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

If YES, specify and explain:

The *Hypoxis hemerocallidea* and *Ledebouria revoluta* plant species were identified on site. All the plants will be documented and recorded using photographs. Their locations (geographical coordinates) will also be documented using a GPS.

A rescue operation will be conducted to relocate the plants to a suitable alternative location. Several options will be considered and investigated. It is currently envisaged that between 0.5h to 1h of the site (property) will be reserved for the location of the two medicinal plants species. Another option would be to consider and investigate alternative sites which are in close proximity to the proposed development site to locate the plant species.

Was a specialist consulted to assist with completing this section

YES	NO
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If yes complete specialist details

Name of the specialist:	N/A		
Qualification(s) of the specialist:	N/A		
Postal address:	N/A		
Postal code:	N/A		
Telephone:	N/A	Cell:	N/A
E-mail:	N/A	Fax:	N/A

Are any further specialist studies recommended by the specialist?

YES	NO
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If YES, specify:

N/A

If YES, is such a report(s) attached?

YES	NO
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If YES list the specialist reports attached below

N/A

Signature of specialist: _____ Date: _____

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

8. LAND USE CHARACTER OF SURROUNDING AREA

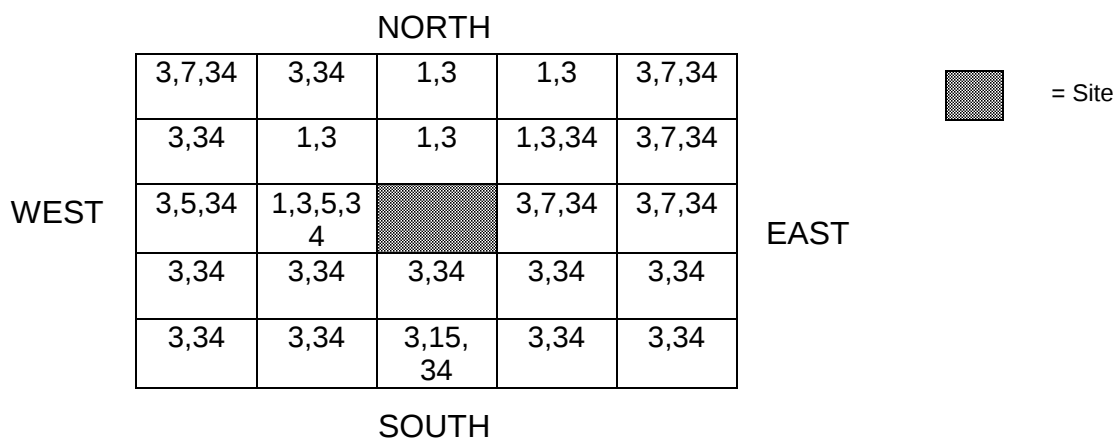
Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N

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26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X250m



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

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

Have specialist reports been attached
If yes indicate the type of reports below

YES	NO
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Heritage Impact Assessment Report: Heritage Impact Assessment for the proposed Walkers Fruit Farms poultry development.

9. SOCIO-ECONOMIC CONTEXT

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

The site is located within the Thorntree Conservancy area on Erf 255 of Walkers Fruit Farm AH (Warkensfontein 3731Q). This area house agricultural related developments as well as rural residential smallholding.

The proposed development is desirable in the area for the following reasons:

- The establishment of a Poultry Farm within this area will bring in diversity to the types of economic activities that exist in the area and accelerate the capital flow in the area.
- The proposed Poultry Farm will increase business and direct employment opportunities in the area, thus contributing to socio-economic growth. The proposed activity creates an opportunity to provide the necessary economic ambience for sustainable economic development in the area as well as job creation for local people.
- It is envisaged that the proposed development will have a positive input in the production of poultry products within the South African context and reduce the amount of white meat (poultry) that the country imports.
- The proposed development will provide apprenticeships and training. Staff employed by the broiler operations will be trained for their jobs and are thereby provided skills that may qualify them for future employment they may not otherwise have been skilled for.

Several potential significant impacts that may arise as a result of the proposed development in the area have been identified. These impacts may result from the different phases of the development which are construction and operational phases respectively. These potential impacts may also differ in size and extent. During the construction phase, the following impacts may occur: soil erosion; disposal of waste and spillages; noise, and dust or air pollution. During the operational phase of the proposed development, the following potential significant impacts may occur: solid waste; visual impacts; scavenging animals; smell, and diseases to neighbouring farms. The potential significant impacts outlined above are discussed and addressed in the Environmental Management Plan (EMP) for the proposed development that is attached (refer to Appendix ...).

However, the broiler infrastructure is semi-permanent and generates an environmental impact of low significance to the development site. This allows for the potential commercial agricultural activities in future with minimal decommissioning costs related to the broiler operation. It must be noted that broiler infrastructure will be easy to remove without significant impact on the environment.

Except for the few active farmers (both crop and stock farmers) within the vicinity of the area for the proposed project, cognizance should still be given to the residents that live in the area so that the impact on the residents is minimized. Hence, compliance with environmental legislation will lead to improved environmental management further minimize environmental risks associated with the project.

ACTIVITY INFORMATION

Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R 18 000 000.00

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

R 5 000 000.00

Will the activity contribute to service infrastructure?

YES	NO
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Will the activity contribute to a public amenity?

YES	NO
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Total number of new employment opportunities to be created in the development phase of this activity.

30

Of these opportunities how many are:

Women

50%

People with disabilities

Female

10%

Male

50%

Youth

Female

80%

Male

80%

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

R1 000 000.00

What percentage of this will accrue to previously disadvantaged individuals?

100%

Total number of new employment opportunities to be created in the operational phase of this activity.

35

Of these opportunities how many are:

Women

50%

People with disabilities

Female

10%

Male

5%

Youth

Female

5%

Male

50%

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

50%

50%

R 10 000 000.00

What percentage of this will accrue to previously disadvantaged individuals?

100%

100%

10. CULTURAL/HISTORICAL FEATURES

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

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

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

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

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

(i) exceeding 5 000 m2 in extent; or

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

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

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

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

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

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

YES	NO
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If YES, explain:

N/A

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

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

The Heritage Impact study that was conducted on the site of the proposed development revealed that although unlikely, sub-surface remains could still be encountered during the construction activities associated with the project. Such remains would therefore, offer no surface indication of their presence due to the sites high state of alteration. The following indicators of unmarked sub-surface sites could be encountered: ash deposits (unnaturally grey appearance of soil compared to the surrounding substrate); bone concentrations, animal or human; ceramic fragments such as pottery shards either historic or pre-contact, and stone concentrations of any formal nature.

The study provide appropriate recommended actions should any sub-surface remains of heritage sites be identified as indicated above:

The heritage impact study also indicated that the site shows some signs of human activities. None of these however have any cultural heritage significance at this stage. No further mitigation is needed at this stage. It is recommended that should bedrock be affected during trenching activities that a palaeontologist be appointed to compile a paleontological desktop study.

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

YES

NO

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

YES

NO

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

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place an advertisement in one local newspaper and any Gazette that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

2. LOCAL AUTHORITY PARTICIPATION

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

Has any comment been received from the local authority?

YES	NO
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If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

N/A

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

The BID was distributed to the relevant departments at the Midvaal Local Municipality. No comment was received during the Notification period. However, all the relevant authority will be notified about the availability of the draft report and they will be given an opportunity to comment during the public review period. Comments from the relevant local authority will probably follow after the review of the Draft Basic Assessment Report.

3. CONSULTATION WITH OTHER STAKEHOLDERS

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

Has any comment been received from stakeholders?

YES	NO
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If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Several issues that were raised by other stakeholders have been registered. The residents pointed out that the proposed development will be located in a Conservancy Area. In addition to that, the stakeholders had raised concerns about the following:

1. Safety impacts due to the increased economic activities in the area;
2. Impacts on roads (concerns about traffic volumes and the capacity of current roads to handle / accommodate heavy duty vehicles);
3. Distance of chicken scoops from the property borders;
4. Smell (odour) emanating from chicken broilers and potential diseases that may be associated with chicken broilers.
5. The potential for impacts on water (contamination of underground water resources and the water table); and
6. Waste disposal

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

N/A

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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

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

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

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

Appendix 6 - Comments and Responses Report

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

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

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 - Other

SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

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

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

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

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

YES	NO
	10-20m ³

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

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

All domestic waste generated on the site will be disposed of in 200l drums or skips and transported to a permitted landfill when full. All redundant infrastructure, waste and construction materials will be removed immediately from site by the contractor and disposed of in an appropriate manner. Litter bins will be placed in strategic locations around the site. Residue from cement mixing and/or the mixing of related materials must be cleared away. The mixing of cement and/or related materials will not be permitted on areas which form part of the open space system.

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

Construction waste will be disposed at an appropriate landfill site by the contractor.

Will the activity produce solid waste during its operational phase?

YES	NO
	5m ³

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

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

The proposed development will also produce waste in the form of, domestic waste, chicken droppings and carcasses. Domestic waste will be collected by the local municipality's service provider for disposal in a permitted landfill site.

A contractor will collect the chicken droppings to make compost of site.

Recommendations will be made to implement a demarcated refuse area on the proposed development site. Any animal waste (chicken carcasses) needs to be disposed of through burial within a lined and well managed burial pit, or should be collected by crocodile or lion farm owners for feeding purposes. See Executive Plan Summary in **Appendix I-7** for Management Plan regarding disposing of chickens.

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

YES	NO
-----	----

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

Solid waste will predominantly be domestic waste and will be very limited in volumes.

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

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

YES	NO
-----	----

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

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

YES	NO
-----	----

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

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

Recommendations will be made that waste be separated according to the different recyclable materials, e.g. glass, paper and plastics. Details are provided in the Environmental Management Plan attached.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Liquid effluent (other than domestic sewage)

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

YES	NO
-----	----

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

N/Am ³	
-------------------	--

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

YES	NO
-----	----

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

YES	NO
-----	----

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

N/Am ³	
-------------------	--

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

N/A

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

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

YES	NO
-----	----

If yes, provide the particulars of the facility:

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

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

N/A

Liquid effluent (domestic sewage)

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

YES	NO
-----	----

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

1m ³	
-----------------	--

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

YES	NO
-----	----

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

YES	NO
-----	----

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

N/A

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
-----	----

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

YES	NO
-----	----

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

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

N/A

2. WATER USE

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

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

±225 000 liters

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

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

YES	NO
-----	----

If yes, list the permits required

Water Use License

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

YES	NO
-----	----

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

YES	NO
-----	----

3. POWER SUPPLY

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

Eskom

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

N/A

4. ENERGY EFFICIENCY

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

None at the moment but the proposed development will be energy efficient. Energy saving equipment will be installed to keep electricity use to a minimum. Brooders will be aluminium cowl fitted with 3x250 watt infrared lamps. Cowl is reflective keeping electricity usage low. Lighting will be done by energy efficient electronic lamps.

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

N/A

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, 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. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

Several issues that were raised by other stakeholders have been registered. The residents pointed out that the proposed development will be located in a Conservancy Area. In addition to that, the stakeholders had raised concerns about the following:

- Safety impacts due to the increased economic activities in the area. Residents fear this may result in crime;
- Impacts on roads (concerns about an increase in traffic volumes and the capacity of current roads to handle / accommodate heavy duty vehicles);
- Distance of chicken scoops from the property borders;
- Smell (odour) emanating from chicken broilers;
- Potential diseases that may be associated with chicken broilers.
- The potential for impacts on water (contamination of underground water resources and the water table); and
- Waste disposal

Summary of response from the practitioner to the issues raised by the interested and affected parties

(A full response must be provided in the Comments and Response Report that must be attached to this report):

Several mitigation measures have been contemplated by the Envirokey Management Services (Environmental Practitioner for the proposed development). These responses relate directly to queries raised by stakeholders. Below are summaries of the responses contained in the Comments and Response Report (attached):

1. **Location of proposed development on a conservancy area** – several factors have been looked at regarding the proposed development. The surrounding area is predominantly agricultural with smallholdings. The site for the proposed development is a 10ha land that is currently standing as vacant land. The site for the proposed development is divided by a ridge or “koppie”. The area earmarked for the proposed development constitutes and/or cover about 65% of the area of land in the property and extent to the north-eastern side of the site towards Meyerton Road.

The proposed development does not intend to rezone the area into other uses but to keep with the agricultural theme of the local community. This, it will do with the associated economic benefits to- while taking the necessary precautions to address and adhere the conservancy theme of the local community.

The proponent of the proposed development has taken a proactive step in adhering to the relevant legislative requirement before undertaking the development. The necessary precautions have been considered and a Heritage Impact Assessment (HIA) of the area was also conducted. The proposed development will be operated in an environmentally friendly manner and in line with the EMP (attached). This document (EMP) also deals with issues related to visual impacts.

2. **Safety (crime) impacts** – the proponents of the proposed development will take the necessary precautions to minimize crime related to the proposed development in the area. The proponent of the development will hire the services of a security company that will monitor the proposed development activity on a 24-hour 7-days per week basis. No chickens will be sold on site to minimize the influx of people in the area. Most of the staff members will be housed in the property (workers accommodation facility on the property) to alleviate the movement of people to and from the site. There will be about ±20 workers living on site and ad hoc daily staff.
3. **Impacts on roads** – there are several roads that can provide access to the property. However, Plantation Road provides the best option is an access road to the proposed

development activity. Plantation Road stretches for ±4.6 kilometers from the R82 to the site of the proposed development. There are very few smallholdings along the road towards the site of the proposed development. Another option for access to the site will be the use of Meyerton Road where vehicles can turn into Walkers Road and then connecting with Boundary Road and drive towards the De Deur shopping center.

Added to that, it is anticipated that the proposed development will result in slight increase in traffic volumes in the area during construction and operational phases of the proposed project. The operation will be based on a 6-week cycle. A contractor will deliver live chicks to the facility once per six week cycle. It is envisaged that the collection of the chickens after they have reached the desired weight will be combined with deliveries at the end of the first cycle. This means that the same vehicle used to deliver chicken will be used to collect chickens from the operation at the same day, thus reducing traffic flows as a result of the proposed activity.

The Environmental Practitioner for the proposed development has made several visits to the area and made observations on the road surfaces in the area. Although there is a potential for a slight increased traffic volumes on the said access routes to the proposed development as a result of increased economic activities in the area (such as the new game farm), traffic flows to the poultry farm for delivery-collection purposes will not be significant in comparison to the expected traffic when local and external tourists are expected to visit the area for game viewing.

4. **Distance of chicken scoops from the property borders** – the position of the chicken scoops will be in line with the relevant legislative requirement and regulations guiding developmental projects of this nature.
5. **Smell (odour) and diseases** – the cages/scoops will be cleaned on a regular basis to avoid foul smell that can bother neighbours of the proposed development.

Food stocks will be kept dry and stored in airtight containers. Water used to clean structures will be diverted directly to the septic tank.

No chicken carcasses will be left astray; it will be kept in a lined and sealed container and it will be removed from the site on a daily basis. The carcasses will be collected by crocodile or lion farmers for feeding purposes (this will be investigated).

Diseases: A very strict bio security and procedural program will be in place to prevent diseases. In addition to that, a dedicated Vet will be appointed to vaccinate the chicks on a regular basis to minimize the spread of chicken diseases to the neighbours. A scheduled vaccination programme will be designed and implemented (also refer to the attached EMP). No chickens will be slaughtered on site. After the chickens' desired weight has been reached, a contractor will collect live chickens to slaughter of site.

6. **Potential impacts on water** – the broiler facilities will be lined and bunded to avoid any run off of polluted water onto unprotected soil. The water used for cleaning the broilers will be diverted to the septic tank and not be permitted to seep into the soil or run towards the non-perennial watercourse to the east of the site. Indigenous vegetation will also be used for landscaping, thereby reducing the amount of water required for irrigation of open areas which may have implications from underground water resources in the area. The disposal of chicken carcasses is identified as a significant contributor to pollution and is addressed in the EMP (also see point 5 above).

There is an existing borehole on site for water intended to be used for the proposed development. A Water Use License application is being compiled and will be submitted to the Department of Water affairs for a decision. The estimated water volumes that will be required by the proposed development are as follows:

- Week 1 to Week 6: ~7 500 litres per day (6.5m³)
- Week 7 to Week 8: ~3 000 litres per day (3m³)

Infrastructure will be installed for the intended housing unit for the family and workers hostels.

7. **Waste disposal** – all domestic waste generated on the site during the construction and operational phases will be disposed of in 200l drums or skips and transported to a permitted landfill when full. All redundant infrastructure, waste and construction materials will be removed immediately from site by the contractor and disposed of in a registered landfill site in an appropriate manner. Litter bins will be placed in strategic locations around the site. Residue from cement mixing and/or the mixing of related materials must be cleared away. The mixing of cement and/or related materials will not be permitted on areas which form part of the open space system.

All construction waste will be disposed at an appropriate landfill site by the contractor.

The proposed development will also produce waste in the form of, domestic waste, chicken droppings and carcasses (see above for disposal of chicken carcasses) during the operational phase. Domestic waste will be taken to a permitted landfill site by local municipality's service provider.

A contractor will collect the chicken droppings to make compost off site.

The carcasses resulting from mortality will be stored in a lined and sealed container in a mortality holding area. The carcasses will be kept hygienic at all times. These carcasses will be removed from the site of the proposed development to a crocodile or lion farm on a daily basis.

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

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

Impact Assessment Criteria & Rating

The impact assessment methodology proposed for this development is based on the ISO14001 principle of activities, aspects and impacts.

- Activities are the physical activities that are carried out during the project during design, construction, operations and decommissioning of the development proposed for the site;
- Environmental aspects are elements of the activities that interact with the environment and include biophysical and socio-economic elements.
- Impacts are defined as changes in the biophysical or socio-economic environment as a result of the aspects.

Each impact identified within the assessment phase of the study is given a significance rating. The significance rating is obtained by implementing this equation:

$$\text{Significance} = (\text{Consequence of impact}) \times (\text{Probability of impact})$$

The consequence of an impact is the sum of extent, duration, severity and degree of irreplaceable loss of the resource. All consequences of an impact are measured as cumulative impacts, taking into account the existing impacts on the resource. The significance of an impact can be measured as positive or negative. The impact assessment table used for calculating significance is provided below.

Table 1: Impact Assessment Table for Calculating Significance.

Category	Description	Score
Extent	Site only	1
	Local	2
	Provincial	3
	National	4

	Global	5
Duration	Immediate short-term (less than 3 months)	1
	Construction or decommissioning period	2
	For the life of the operation	3
	Permanent	5
Intensity of impact on resource	Will have an insignificant impact on the resource	1
	Will generate an impact of low intensity	2
	Will generate an impact of moderate intensity	3
	Will have a very significant impact on the resource	4
Irreplaceable loss of resources	No/minor irreplaceable loss	0
	Partial irreplaceable loss	1
	Major loss of irreplaceable resources	2
	Full loss of irreplaceable resources	5
Probability	Improbable	0.5
	Possible but unlikely	1
	Probable	2
	Highly probable	3
	Definite	4

Once the impact has been assessed using the above significance categories, a rating is calculated. The rating will indicate a specific significance of the impact as illustrated by the table below. By identifying whether the impact is positive or negative, the significance will be read from the relevant portion of the table.

Table 2: Impact Ratings and the Implied Significance

	Score	Significance
Negative Impact	>60	Fatal flaw (unacceptable impact)
	40 to 60	High significance
	20 to 39	Moderate significance
	19 to 0	Low significance
Positive Impact	0 to 25	Low significance
	26 to 45	Moderate significance
	>45	High significance

By calculating the significance rating of the impact, one can evaluate whether a negative impact can be mitigated and managed efficiently, or whether the impact is a fatal flaw, and thereby disallowing the proposed development from being approved. A positive impact could be a motivation to the proposed development and by assigning significance to the positive impact; this provides comparative information to decision-makers for approval or denial of the application.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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

Proposal (Construction Phase)

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
1) Loss of habitat and biodiversity loss The area to be affected by the proposed development is approximately 7 hectares in extent. The whole site remains natural veld. The proposed development site is surrounded by mainly agricultural smallholdings. Erf 255 is situated in a conservancy area. From the north round to the south, the area is used predominantly for small scale agricultural use and some light commercial activities. To the east of the site is vacant land and beyond that there is a new game farm. Site clearing for the proposed development will result in the removal of current vegetation (which is dominated by shrubs and grass). Furthermore, disturbance due to noise and machinery and human movement during construction will also impact on site habitat and biodiversity. The construction phase of the development is temporary and the operational phase will be long term.	Score = 16 Rating = Low to moderate	All construction activities should be confined to the project site. Mitigation measures further provide for the use of indigenous vegetation for ALL landscaping requirements. Provision is made in the Environmental Management Plan (EMP) for landscaping of the site with indigenous vegetation. Lists of suitable vegetation are also provided.	Score = 8 Rating = Low
2) Impact on Fauna The construction of the proposed development will require clearing of the 7 hectares of the 10 hectares of site. No fauna were spotted on site. However, the impact on fauna is not considered to be significant as there were no animals spotted on site.	Score = 7 Rating = Low	The use of indigenous vegetation to landscape disturbed areas within the development will provide some habitat for fauna. Planting some indigenous trees in suitable places around the property will provide additional habitat and shelter for the indigenous birds and terrestrial fauna that may frequent this area.	Score = 3 Rating = Very Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

It is not expected that the operational phase of the development will have a significant impact on fauna.		Provisions are provided in the EMP (Appendix H) indicating that no animals found on site are to be killed or harmed. They should be relocated to suitable habitats.	
3) Impact on Flora The proposed development area is located in a Conservancy. However, no Red Data Species were noted on site. Medicinal plants were noted on site. The proposed construction may result in the removal, burial, mechanical damage, or alteration to all the vegetation in the footprint area on the proposed development site.	Score = 14 Rating = Low to moderate	All construction activities should be confined to the project site. Where practical, indigenous trees present on site should be identified, removed and used for landscaping purposes after construction is completed. Mitigation measures include the use of indigenous vegetation for ALL landscaping requirements, including the use of indigenous grasses such as <i>Cynodon dactylon</i> instead of kikuyu for lawns. The site should be kept free of exotic vegetation. All the medicinal plants identified on site will be documented and recorded using photographs. Their locations (geographical coordinates) will also be documented using a GPS. A rescue operation will be conducted to relocate the plants to a suitable alternative location. Several options will be considered and investigated. It is currently envisaged that between 0.5h to 1h of the site (property) will be reserved for the location of the two medicinal plants species. Another option would be to consider and investigate alternative sites which are in close proximity to the proposed development site to locate the plant species. An Environmental Management Plan has been compiled to provide management measures for reducing the impacts to the local environment.	Score = 8 Rating = Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

4) Noise Residents in the vicinity of the proposed development site will be subjected to increased noise nuisance (noise and vibration caused by construction machinery and equipment) during the construction phase of the project. Noise nuisance may be both intermittent and continuous. Due to the size and distances between properties it is anticipated that noise will be limited to the development site The movement of heavy vehicles to and from the site during the construction phase, as well as the actual construction activity, will all be sources of noise pollution. These activities will, however, be restricted to specific operating hours. The noise generated by construction activities will be temporary and limited to the construction phase of the project. <i>However, the distance of surrounding agricultural holdings gives the potential noise impact less significance.</i>	Score 16 Rating = Low to moderate	Working hours must be limited to day light only. Noise related to the construction activities are to be scheduled to occur within prescribed normal working hours and must comply with the provisions of SABS 0400-1990 with respect to working hours (see EMP – Appendix H). In addition, construction vehicles and machinery should be fitted with the appropriate noise muffling devices and must be appropriately maintained so as to ensure that the machines and vehicles do not produce excessive noise disturbance.	Score = 5 Rating = Very Low
5) Water Pollution The proposed construction activities (including installation of services) may potentially cause pollution to underground reservoirs. The proposed abstraction of underground water at the facility is likely to have an impact on the underground water resource. In addition, litter and waste during construction must be monitored so as to ensure that no pollution will affect the surrounding environment or stormwater runoff.	Score = 10 Rating = Low	Mitigation measures to prevent water pollution include the appropriate disposal of litter and waste produced during the construction phase as outlined in the EMP (Appendix H). A Water Use License (WUL) application is being submitted to the Department of Water Affairs (DWA). The Department of Water Affairs will also review the BAR and provide comments and/or recommendations. All measures must be taken to ensure no hydrocarbon spillages occur on site. These	Score = 5 Rating = Very Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

		mitigation measures will ensure that no pollution will affect the surrounding environment and storm water runoff.	
6) Soil Pollution During the construction phase, soil contamination may be caused by leakages from improper storage or poor handling of petroleum products such as oil and fuel. Spillage during dispensing, as well as improper disposal of used oils, hydraulic fluids and empty oil containers may also lead to soil pollution. The presence of machinery and vehicles on site during the construction phase may result in the occurrence of hydrocarbon spills or leakages. Improper practices when conducting maintenance on vehicles/machinery may also result in hydrocarbon spills contaminating the soil.	Score 12 Rating = Low	Storage of potential pollutants such as fuel and oil should be confined to a sealed surface to prevent soil contamination from accidental leaks or spillages. Best management practices should be applied to reduce fuel usage. The EMP includes recommendations for handling of hydrocarbons on site, as well as mitigation measures in the event of accidental leakage or spillage. Vehicles and machinery must be well-maintained to ensure they do not result in oil or fuel leaks. Should maintenance of vehicles/machinery take place on site, this should be undertaken in a designated area that is paved. In addition, spill trays should be used when servicing vehicles to reduce the likelihood of oil or fuel spillage on the ground.	Score = 4 Rating = Very Low
7) Air Pollution The proposed construction phase activities will affect air quality as a result of emissions caused by exhaust fumes and dust generation. The effect on air quality is expected to be very localised and minor. This impact is not expected to be significant.	Score = 14 Rating = Low to moderate	Emissions into the air can be minimised by ensuring regular maintenance of construction vehicles and equipment in order to reduce emission of exhaust fumes. The application of best management practices for dust suppression will also aid in reducing air pollution. Dust control can be achieved by means of the periodic application of water to open sandy surfaces and to temporary dirt roads. The EMP includes recommendations for dust suppression.	Score = 8 Rating = Low
8) Property Values The proposed development is expected to have a moderate negative effect on property values for the immediately surrounding area.	Score = 14 Rating = Low to Moderate	The operational phase of the site should include good housekeeping measures to ensure that the site does not contribute to area neglect.	Score = 8 Rating = Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

9) Storm Water Management Construction activities can impact on stormwater in terms of sedimentation and pollution. Litter or hydrocarbon spillages or cement can also have an impact on stormwater.	Score = 16 Rating = Moderate	In terms of SABS 0400-1990 of the National Building Regulations, on site drainage will be provided prior to construction to combat soil erosion. A storm water management plan designed and supervised by an engineer and approved by the local authority, is required before construction on the site is undertaken.	Score = 6 Rating = Low
10) Soil Erosion Exposed soil resulting from construction activities is prone to erosion by water or wind. Stripping and stockpiling of topsoil could lead to erosion and degradation of soil quality. In addition, soil compaction could result following the construction activities. Furthermore, within the construction phase, some activities involving site installation and preparation may cause soil destabilisation.	Score = 14 Rating = Low	Mitigation measures include reducing the amount of exposed soil by means of selective soil stripping. Susceptible soil surfaces can be protected with mulch. Drainage channels must be monitored to ensure erosion doesn't occur. Planting (or grassing) erodible surfaces as soon as possible will assist in soil binding and may help prevent soil erosion. Mitigation measures and stipulations in this regard are elaborated on within the EMP.	Score = 5 Rating = Very Low
11) Cultural Sites and Historical and Pre-Historical Sites or Features The impact of the proposed development on heritage sites is insignificant as there are no known heritage sites on the development site or in the vicinity of the project.	N/A	There are no cultural or historical features on site or in the near vicinity. However, the provisions of the National Heritage Resources Act will apply. If any sign of a heritage or cultural site is unearthed during excavations then all activity must cease until the Heritage Specialist has had an opportunity to investigate such finds.	N/A
12) Loss of land for farming The Agricultural Potential for the proposed development site has been classified as low according to the GDARD Conservation Plan (Version 3).	Score = 3 Rating Low	The area is small and not viable for crop farming. No relevant mitigation measures exist.	Score = 1 Rating = Very Low
13) Visual Impact Construction activities that, without mitigation, could give rise to visual impacts. The following temporary activities are included: • Presence of storage and stockpile areas, • Movements of construction machinery.	Score = 16 Rating = Low to moderate	The visual impacts of construction activities will be temporary.	Score = 8 Rating = Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

14) Traffic Construction activities will require the movement of heavy vehicles and machinery on local road networks to access the development site. The movement of vehicles related to the proposed development may impact on local traffic movements.	Score = 14 Rating = Low to Moderate	Movement of construction vehicles on the local road network should be minimised as far as possible.	Score = 6 Rating = Low
15) Safety During the construction phase heavy machinery will be employed. The potential for accidents among operators exists if machinery is not handled properly. This is likely to have a negative impact on the health of the workers. The lack of enforcement of health and safety regulations could impact negatively on construction workers.	Score = 12 Rating = Low	To limit the risk of accidents, safety procedures must be put in place and enforced by the foremen to ensure that vehicles and machinery only drive in designated places and are only driven by authorised personnel. Occupational Health and Safety Requirements as determined by the Department of Health must be enforced during the construction phase of the proposed activities. Firefighting, containment of hazardous materials and First Aid are covered in the EMP (Appendix H).	Score = 3 Rating Very Low
16) Hydrocarbon Spills Potential oil and petroleum spills from construction vehicles and equipment may occur during the construction phase of the development. Such spills will also be possible during the operational phase of the development and may pollute the soil.	Score = 8 Rating = Low	The following measures may prevent or reduce the likelihood of hydrocarbon spills: • Use of drip pans where petroleum products are dispensed. • Storage of potential pollutants such as fuel and oil should be done on sealed surfaces to prevent soil and water contamination. Petroleum storage tanks should have bund walls around and should be high enough to contain any potential spillage; • Used oil and lubricants must be collected and recycled. These measures are elaborated on within the EMP.	Score = 4 Rating = Very Low
17) Impact on Services	Score = 8 Rating= Low	All stipulations and conditions provided by the local municipality in terms of installation of	Score = 5 Rating = Very Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Sufficient capacity in terms of water, sewage and electricity must be established to accommodate the proposed development.		services should be adhered to.	
18) Socio Economic Impact The proposed broiler activities will supply employment opportunities to locals and working there would supply them with skill development.	Score = 7 Rating = Low to moderate	Development of broiler activities will require more employees thereby expanding employment opportunities and uplifting the rural community by the fact that: • It provides for the creation of employment opportunities for local people in the area. • Staff that will be employed by the broiler operation will be trained for their jobs and are thereby provided skills that may qualify them for future employment they may not otherwise have been skilled for.	Score = 4 Rating = Very Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Proposal (Operational Phase)

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
1) Loss of habitat and biodiversity loss The area to be affected by the proposed development is approximately 7 hectares in extent. The whole site remains natural veld. The proposed development site is surrounded by mainly agricultural smallholdings. Erf 255 is situated in a conservancy area. From the north round to the south, the area is used predominantly for small scale agricultural use and some light commercial activities. To the east of the site is vacant land and beyond that there is a new game farm. Site clearing for the proposed development will result in the removal of current vegetation (which is dominated by shrubs and grass). The operational phase of the development will be long term.	Score = 16 Rating = Low to moderate	All operational activities should be confined to the project site. Mitigation measures further provide for the use of indigenous vegetation for ALL landscaping requirements. Provision is made in the Environmental Management Plan (EMP) for landscaping of the site with indigenous vegetation. Lists of suitable vegetation are also provided.	Score = 6 Rating = Low
2) Impact on Fauna It is not expected that the operational phase of the development will have a significant impact on fauna.	Score = 4 Rating = Very Low	The use of indigenous vegetation to landscape disturbed areas within the development will provide some habitat for fauna. Planting some indigenous trees in suitable places around the property will provide additional habitat and shelter for the indigenous birds and terrestrial fauna that may frequent this area. Provisions are provided in the EMP (Appendix H) indicating that no animals found on site are to be killed or harmed. They should be relocated to suitable habitats.	Score = 1 Rating = Very Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

3) Impact on Flora The proposed development area is located in a Conservancy. However, no Red Data Species were noted on site. Medicinal plants were noted on site.	Score = 10 Rating = Low to moderate	All construction activities should be confined to the project site. Where practical, indigenous trees present on site should be identified, removed and used for landscaping purposes after construction is completed. Mitigation measures include the use of indigenous vegetation for ALL landscaping requirements, including the use of indigenous grasses such as <i>Cynodon dactylon</i> instead of kikuyu for lawns. The site should be kept free of exotic vegetation. A rescue operation will be conducted to relocate the plants to a suitable alternative location. Several options will be considered and investigated. It is currently envisaged that between 0.5h to 1h of the site (property) will be reserved for the location of the two medicinal plants species. Another option would be to consider and investigate alternative sites which are in close proximity to the proposed development site to locate the plant species. An Environmental Management Plan has been compiled to provide management measures for reducing the impacts to the local environment.	Score = 4 Rating = Very Low
4) Noise Residents in the vicinity of the proposed development site will be subjected to noise nuisance from the vehicles to and from the site. Noise may also come from the broilers during the operational phase of the proposed development. <i>However, the distance of surrounding agricultural holdings gives the potential noise impact less significance.</i>	Score 16 Rating = Low to moderate	No collection of chickens nor deliveries to the proposed development should occur after hours.	Score = 6 Rating = Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

5) Water Pollution Poorly managed disposal of carcasses may generate a risk of pollution to groundwater resources. The presence of vehicles on site may result in hydrocarbon spillages and pollute water.	Score = 10 Rating = Low	Disposal of dead carcasses must also be managed. A management plan has been formulated to deal with this issue, see EMP (Appendix H). In addition, all measures must be taken to ensure no hydrocarbon spillages occur on site. These mitigation measures will ensure that no pollution will affect the surrounding environment and storm water runoff.	Score = 5 Rating = Very Low
6) Soil Pollution The presence of machinery and vehicles on site during the operational phase may result in the occurrence of hydrocarbon spills or leakages. Improper practices when conducting maintenance on vehicles/machinery may also result in hydrocarbon spills contaminating the soil.	Score 12 Rating = Low	Vehicles and machinery must be well-maintained to ensure they do not result in oil or fuel leaks. Should maintenance of vehicles/machinery take place on site, this should be undertaken in a designated area that is paved. In addition, spill trays should be used when servicing vehicles to reduce the likelihood of oil or fuel spillage on the ground. Storage of potential pollutants such as fuel and oil should be confined to a sealed surface to prevent soil contamination from accidental leaks or spillages. Best management practices should be applied to reduce fuel usage. The EMP includes recommendations for handling of hydrocarbons on site, as well as mitigation measures in the event of accidental leakage or spillage.	Score = 4 Rating = Very Low
7) Air Pollution The proposed operational phase activities will affect air quality as a result of emissions caused by exhaust fumes and dust generation. The effect on air quality is expected to be very localised and minor. Vehicles and machinery used on site during the operational phase may result in minimal air pollution due to the release	Score = 14 Rating = Low to moderate	Emissions into the air can be minimised by ensuring regular maintenance of construction vehicles and equipment in order to reduce emission of exhaust fumes. The application of best management practices for dust suppression will also aid in reducing air pollution. Dust control can be achieved by means of the periodic application of water to open sandy	Score = 14 Rating = Low to moderate

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

of exhaust fumes and possible dust generation. This impact is not expected to be significant. Smell from the broiler activities has an impact on the quality of air in the neighbourhood and may affect life for neighbours down wind.		surfaces and to temporary dirt roads. The EMP includes recommendations for dust suppression. The cages/scoops will be cleaned on a regular basis to avoid foul smell that can bother neighbours of the proposed development. Food stocks will be kept dry and stored in airtight containers. Water used to clean structures will be diverted directly to the septic tank. No chicken carcasses will be left astray; it will be kept in a lined and sealed container and it will be removed from the site on a daily basis. The carcasses will be collected by crocodile or lion farmers for feeding purposes (this will be investigated).	
8) Property Values The proposed development is expected to have a moderate negative effect on property values for the immediately surrounding area.	Score = 14 Rating = Low to Moderate	The operational phase of the site should include good housekeeping measures to ensure that the site does not contribute to area neglect.	Score = 8 Rating = Low
9) Storm Water Management During the operational phase, the development will probably render a portion of the site with an impermeable surface (rooftops). This will result in increased storm water runoff post-development. If not managed properly, storm water runoff could result in soil erosion.	Score = 10 Rating = Low to Moderate	In terms of SABS 0400-1990 of the National Building Regulations, on site drainage will be provided prior to construction to combat soil erosion. A storm water management plan designed and supervised by an engineer and approved by the local authority, is required before construction on the site is undertaken. Taps on site should have a cement bowl to reduce splash impact or should have grass blocks at the tap to absorb water.	Score = 6 Rating = Low
10) Cultural Sites and Historical and Pre-Historical Sites or Features	N/A	There are no cultural or historical features on site or in the near vicinity. However, the provisions of	N/A

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

The impact of the proposed development on heritage sites is insignificant as there are no known heritage sites on the development site or in the vicinity of the project.		the National Heritage Resources Act will apply. If any sign of a heritage or cultural site is unearthed during excavations then all activity must cease until the Heritage Specialist has had an opportunity to investigate such finds.	
11) Visual Impact Coops may have an impact on the surrounding area.	Score = 16 Rating = Low to moderate	In terms of the operational phase, development controls must be imposed on the development to ensure that the proposed development is in-keeping with the surrounding built form. Furthermore, strategic landscaping using indigenous vegetation will enhance the attractiveness of the development, making it both more visually appealing and more environmentally valuable.	Score = 10 Rating = Low to moderate
12) Traffic The movement of vehicles related to the proposed development may impact on local traffic movements. The traffic impact is not expected have a significant impact in the area as it will be low.	Sore = 10 Rating = Low to Moderate	Movement of construction vehicles on the local road network should be minimised as far as possible.	Score = 5 Rating = Low
13) Safety The lack of enforcement of health and safety regulations could impact negatively on construction workers. All normal precautionary measures should be implemented during the operational phase of the development to ensure that vehicles and machinery do not pose a threat to the safety of employees and/or the public. There will be no significant impacts to the safety of the public as a result of the proposed activity.	Score = 12 Rating = Low	To limit the risk of accidents, safety procedures must be put in place and enforced by the foremen to ensure that vehicles and machinery only drive in designated places and are only driven by authorised personnel. Occupational Health and Safety Requirements as determined by the Department of Health must be enforced during the operational phase of the proposed activities. Firefighting, containment of hazardous materials and First Aid are covered in the EMP (Appendix H).	Score = 3 Rating Very Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

14) Hydrocarbon Spills Potential oil and petroleum spills from vehicles and equipment on site may occur during the operational phase of the development and may pollute the soil.	Score = 8 Rating = Low	The following measures may prevent or reduce the likelihood of hydrocarbon spills: • Use of drip pans where petroleum products are dispensed. • Storage of potential pollutants such as fuel and oil should be done on sealed surfaces to prevent soil and water contamination. Petroleum storage tanks should have bund walls around and should be high enough to contain any potential spillage; • Used oil and lubricants must be collected and recycled. These measures are also elaborated on within the EMP.	Score = 3 Rating = Very low
15) Impact on Services Sufficient capacity in terms of water, sewage and electricity exists to accommodate the proposed development.	Score = 8 Rating = Low	All stipulations and conditions provided by the local municipality in terms of installation of services should be adhered to.	Score = 4 Rating = Very Low
16) Socio Economic Impact The proposed broiler activities will have a positive impact on the local economy by supplying employment opportunities to locals and working there would supply them with skill development.	Score = 19 Rating = Moderate	Development of broiler activities will require more employees thereby expanding employment opportunities and uplifting the rural community by the fact that: • It provides for the creation of employment opportunities for local people in the area. • Staff that will be employed by the broiler operation will be trained for their jobs and are thereby provided skills that may qualify them for future employment they may not otherwise have been skilled for.	Score = 20 Rating = Moderate

Alternative 1

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
N/A			

Alternative 2

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
N/A			

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

Heritage Impact Assessment (HIA)

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

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

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
There are no potential impacts that are associated with the decommissioning and closure phase of this development. The proposed development is for the construction of broiler facilities on a farm and as such, is not likely to be decommissioned or closed. However, due to the broiler infrastructure having very shallow foundations and being of a semi-permanent nature, decommissioning and closure can be carried out within a matter of days with no significant impacts to the environment. The proponent of the proposed development is not likely to build a housing unit if the proposed activity is not given authorisation.			

Alternative 1

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Not applicable as explained previously.			

Alternative 2

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Not applicable as explained previously.			

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

N/A

4. CUMULATIVE IMPACTS

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

There is likely to be an increased pressure on services such as electricity and water resources in the area.

The proposed development will fit into the existing small scale farming in the area and contribute to employment availability due to the proposed nature of the development. It is expected that the proposed development will generate a range of job opportunities for both skilled and unskilled labourers during the construction and operational phases of development.

Additional pressure will be placed on road infrastructure in the area due to the additional traffic generated as a result of the proposed development. Traffic will be a cumulative impact if further development activities are planned for this area.

Contamination of water resources especially groundwater remains a concern. A management plan will have to be enforced through the EMP to ensure the proper way to handle dead chickens on the site. It will be preferred if carcasses are not buried, but kept in a sealed container and when full the chickens be taken to the local crocodile farm and used for feeding purposes. Cleaning of the containers should also be controlled to make sure that no water run-off ends up in any water resource.

5. ENVIRONMENTAL IMPACT STATEMENT

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

Proposal

Summary of the potential impacts after management and mitigation have been taken into account are as follows:

Loss of habitat/biodiversity and impact on fauna and flora

It is expected that all current vegetation in the proposed footprint will be lost to construction activities. However, it has been proposed that indigenous vegetation be used for all landscaping activities. A rescue operation will be conducted to relocate the medicinal plants spotted on site. Considering the initial condition of the site, the resultant significance of the impact on habitat and biodiversity loss will be **low**.

Noise

Construction activities will be responsible for noise pollution due to the presence of heavy vehicles and machinery, as well as the associated construction activity itself. The construction activity will be temporary in nature. Standard methods can be employed to ensure machinery and vehicles are not noisy. Therefore, the resultant significance of the noise impact after mitigation measures is expected to be **very low**. Noise nuisance related to the operational phase of the development will result largely from vehicle movement. Noise impacts will be **low** taking into account the nature and size of the properties in the area for the operational phase.

Water, soil and air pollution

Various construction activities, if not properly managed, may result in pollution of soil, air and water resources. Best management practices should be applied in terms of fuel usage, dust suppression and general waste management (including discarding of chicken carcasses). If such measures are implemented, the significance of impact on soil, air and water are expected to be **low**.

Property Values

The operational phase of the site should include good housekeeping measures to ensure that the site does not contribute to area neglect, and screening of the property by indigenous plants, these mitigation measures will bring the impact down to **low**.

Storm water Management/Soil erosion

The proposed development footprint will render a portion of the area of the property with an impermeable surface resulting in increased storm water runoff. Mitigation measures include the design and implementation of suitable Storm Water Management Plan. The impact after mitigation will be **low**, therefore ensuring that soil erosion probability will also be **low**.

Visual Impact

The significance of the visual impact after construction is completed is expected to be **low**, taking into account the nature of the development site (agricultural holding).

Traffic

Traffic hindrances during the construction phase of the project will be temporary. The impact on traffic during the operational phase is expected to be **low** during the operational phase. The area is characterized by a low amount of traffic volumes after and mitigation measures this impact will be remain **low**.

Impact on existing services

Civil services such as sewage, water and electricity must be established and made available at the site of the proposed development. Sufficient capacity must also be established to fully service the proposed development. Service installation must be undertaken by qualified engineers and contractors. The resultant impact of the development on services in the area is therefore expected to be **moderate**.

Socio Economic Impact

The proposed broiler activities will supply employment opportunities for locals and working there supplies them with skills development. Construction of broiler activities will require more employees thereby expanding employment opportunities and uplifting the rural community thereby contributing to a **Moderate Positive Impact**.

Alternative 1

N/A

Alternative 2

N/A

No-go (compulsory)

Should Alternative 3 be identified as the preferred alternative, then the following situations may occur:

- The property may retain its current status. This may lead to the continued degradation of the site as there is already illegal dumping of waste on the site. This option does not optimize or promote the best use of the land in this area. In addition not using the site for any economic activities does not provide opportunity for job creation within the local community.

Business activities provide entrepreneurial opportunities as well as job opportunities, while the environmental impact will be fairly insignificant.

The "No-Go" alternative is not recommended.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The preferred proposal is for Alternative 1

For alternative:

N/A

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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

The application site is not suitable for agricultural use but will sustain broiler development.
The proposed development provides for the creation of employment opportunities in close proximity to rural area.
The proposed development will not have any significant impact on the vegetation communities in the area.
Mitigation measures have been considered to reduce the effect of the development on the surrounding environment. Wherever possible, recommendations will be made to mitigate against impacts on the physical, biological and socio-economic environment. These recommendations are presented in the Environmental Management Plan.
The Environmental Management Plan includes a plan for monitoring and implementation of mitigation measures during the construction and operational phases of this project.

7. 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
-----	----

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

N/A

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

The recommendations of the Environmental Management Plan (EMP) must be adhered to.
An EMP has been compiled for responsible environmental management during the construction and operation of the proposed development. This EMP should be approved by the Gauteng Department of Agriculture and Rural Development and listed as a condition that must be adhered to in order for authorisation to be given to the proposed activities.
The recommendations presented in the following specialist studies must be adhered to: a. Heritage Impact Assessment
It is recommended that the preferred proposal (Alternative 1) be granted environmental authorisation.

N/A

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

If the EAP answers yes to Point 7 above then an EMPr is to be attached to this report as an Appendix

EMPr attached

Yes

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

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

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

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

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

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

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

Appendix A – Site Plans



Figure 1: Please note that this is a proposed sketch. A proper site layout plan will be provided with the final BAR.

Appendix B – Photographs of the Proposed Poultry Farm at Erf 255 Walkers Fruit Farm



Figure 1: The photos above portray the vacant land on Erf 255 of the Walkers Fruit Farm where the proposed development will be located. Top photograph shows the eastern site of the property while the bottom photograph show northern side of the property where the stone building is located on site. It is proposed that the chicken broilers will be located on this site of the property.



Figure 2: Area for the proposed housing compound on site at the edge of the ridge (middle-right of the property).



Figure 3: Picture of the existing borehole infrastructure on site



Figure 4: Existing tank on site at the area earmarked for development.



Figure 5: The area where the medicinal plants were spotted on site (top photograph) and the two types of medicinal plants spotted (bottom left ... and bottom right...)



Figure 6: The photographs illustrate the southern to the western sides of the property.

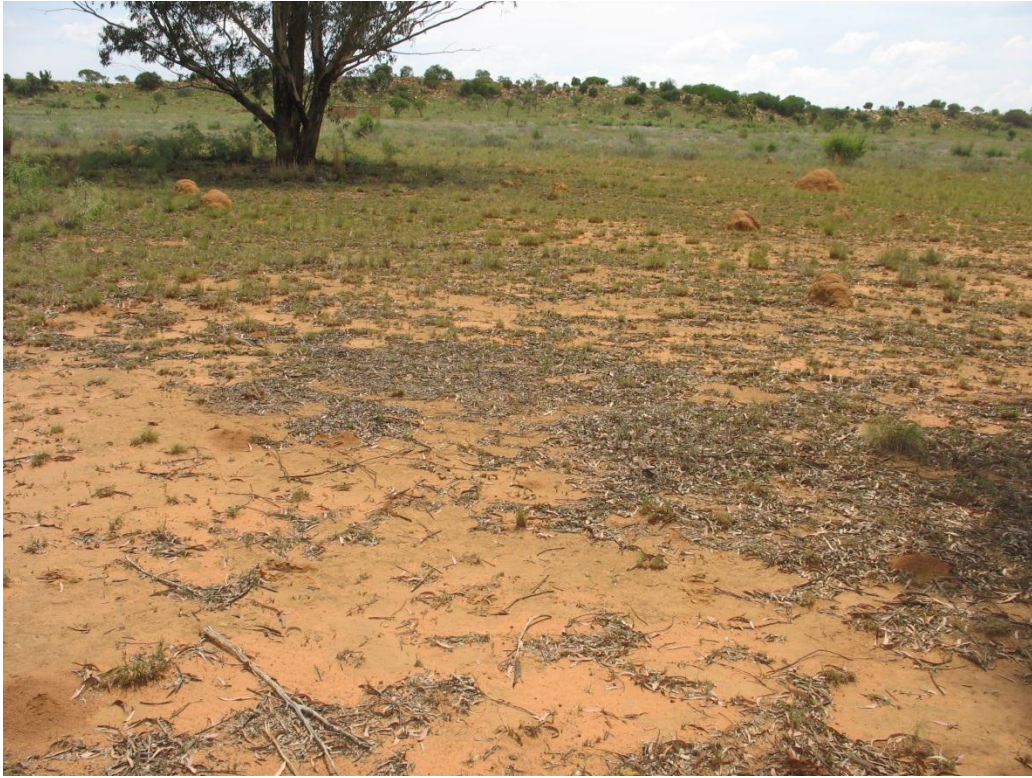


Figure 7: These photographs show the ridge that divides the property (top photograph taken from Meyerton Road while bottom photograph was taken from the top of the ridge).



Figure 8: Illegal dumping of waste (builder's rubble, glass and general waste) is dumped at the western corner of the property.



Figure 9: Available infrastructure (top photograph – Meyerton Road is the proposed access road to the Poultry Farm) and services in Walkers Fruit Farm AH.



Figure 10: The photographs show some of the available infrastructures for economic activities (operational and non-operational) in and around Walkers Fruit Farm Agricultural Holdings.

Appendix C – Facility Illustrations

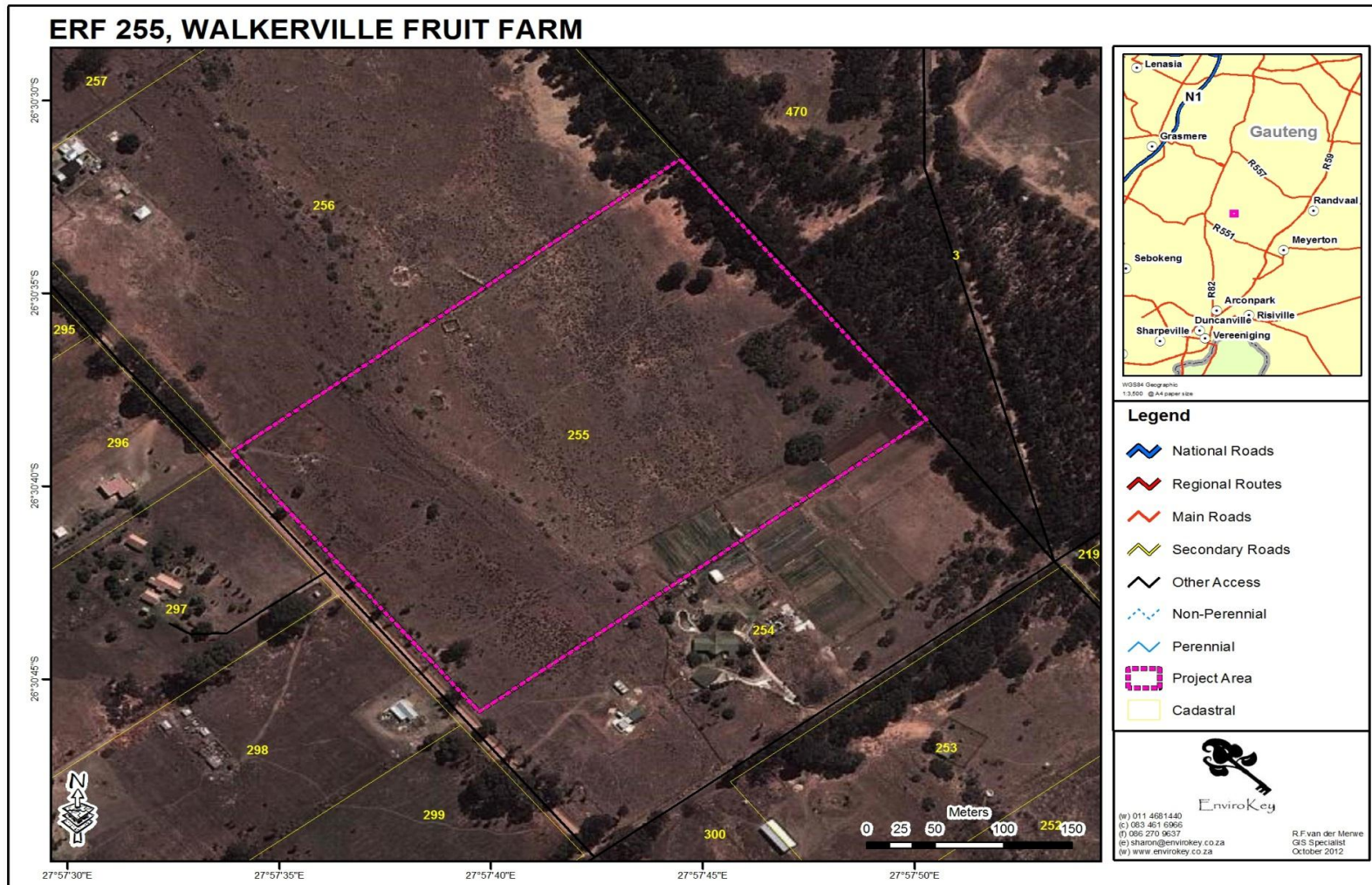


Figure 1: A Google Earth map showing the extent of the vacant land for the proposed Poultry Farm development on Erf 255 of Walkers Fruit Farm.

Appendix D – Route Position Information

Not Applicable

Appendix E – Public Participation Documents

Appendix E1 – Proof of Site Notice

Appendix E2 – Written notices issued to key stakeholders

Appendix E3 – Proof of newspaper advertisements

Appendix E4 – Communications to and from key stakeholders

Appendix E5 – Minutes of any public and/or stakeholder meetings

Appendix E6 – Comments and Response Report

Appendix E7 – Comments from I&APs on Basic Assessment Report

Appendix E8 – Comments from I&APs on amendments to the BA Report

Appendix E9 – Copy of the register of I&APs

Appendix E10 – Comments from I&APS on the application

Appendix E11 – Other

Appendix E1 – Proof of Site Notice

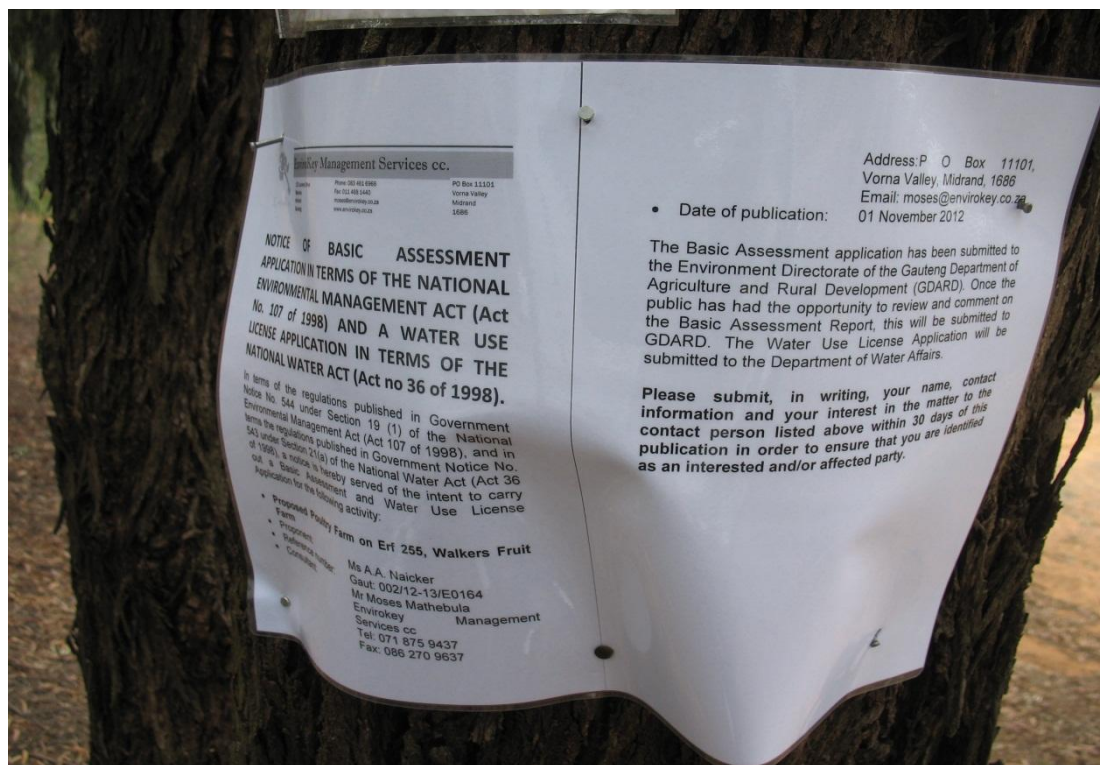


Figure 1: Site Notice at the Meyerton Road intersection near the property of the proposed Poultry Farm.

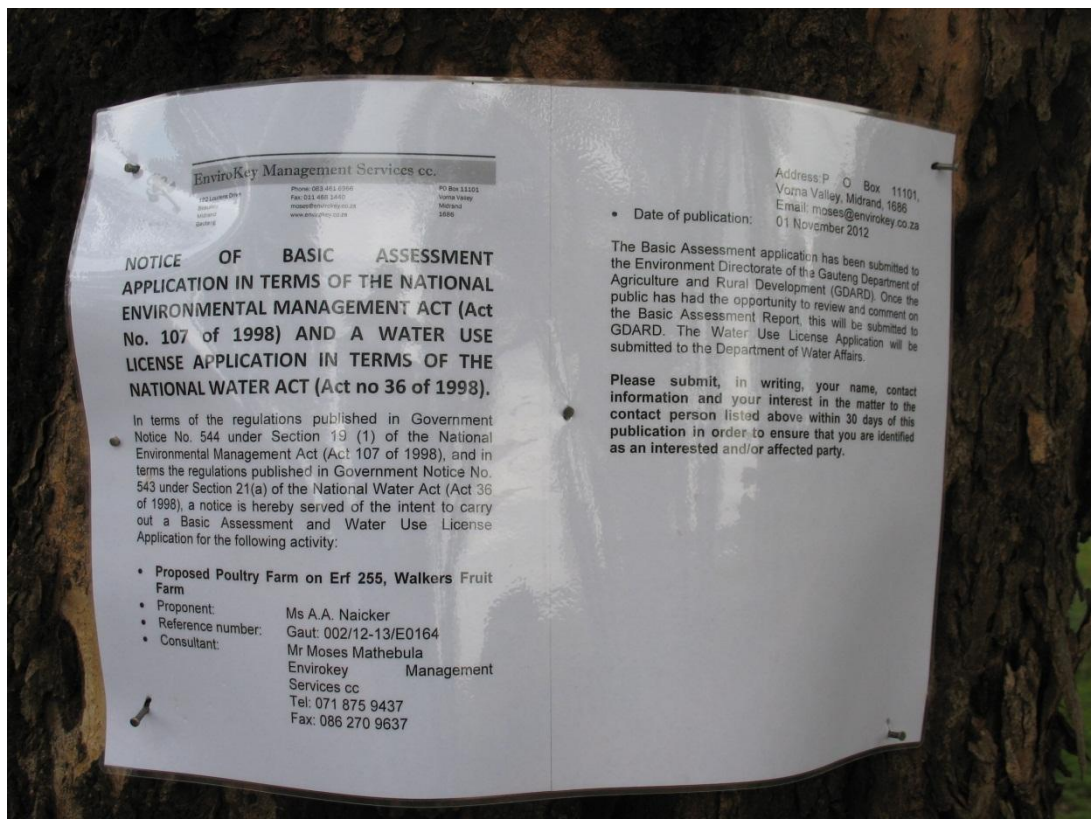


Figure 2: Environmental authorisation site notice at the T-Junction of Foothill Road near the property.

Appendix E2 – Written notices issued to key stakeholders

1. Copy of BID
2. Copy of I&AP Registration Form
3. Email sent to officials for different Departments at the Midvaal Local Municipality
4. Email Ward Councillor Rob Jones
5. Copy of email sent to the Chairperson of the Thorntree Conservancy Mr Ivan Parkes



EnviroKey Management Services cc.

Background Information Document for the authorisation of a Basic Assessment Process and a Water Use License Application for the proposed Poultry Farm at Walkersville Fruit Farm

Gauteng Department of Agriculture and Rural Development reference number:

Gaut: 0021213E0164

Introduction

In terms of the EIA regulations published in Government Notice No. 543 and 544 under Section 19 (1) of the National Environmental Management Act (Act 107 of 1998), a Basic Assessment (BA) is required for the proposed activities to be undertaken at Walkers Fruit Farm, Erf 255, Meyerton Street in Vereeniging. In addition, a Water Use License is required in accordance with the requirements of the National Water Act (Act 36 of 1998).

Legislation

The activities which trigger a Basic Assessment under GN 544 include:

- GN R.544, Activity 5 – Construction of facilities and infrastructure for the concentration of:
 - (i) more than 1 000 poultry per facility situated outside an urban area, including chicks younger than 20 days.
- NG R.544, Activity 8 – The construction of a hatchery or agri-industrial infrastructure outside industrial complexes where the development footprint covers an area of 2 000 square metres or more
- GN R.544, Activity 23 – The transformation of undeveloped, vacant and derelict land to –
 - (i) Residential, retail, commercial, industrial, or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectares but less than 20 hectares

Water Use license is required in term of Section 21(a) of the National Water Act (NWA) for the proposed abstraction of water from a borehole.

Environmental Consultants

Envirokey Management Services cc has been appointed as the environmental assessment practitioners for the Basic Assessment (BA) and Water Use License Application (WULA) required for the activities of the proposed Poultry Farm at Walkers Fruit Farm in Walkersville. Stakeholders who would like to receive updates on this process and/or register as Interested and Affected Parties (I&APs) should complete the attached registration document and submit this to Envirokey Management Services cc on the details provided.

Proposed Activities

Proposed activities on the site include:

- Construction of six fully automated scoops for the concentration of 120 000 poultry, including chicks younger than 20 days.
- The construction of a residential unit to house a family.
- The abstraction of groundwater from a borehole to utilise at the poultry farm.

The land for the proposed development is currently vacant land and will be developed into a Poultry Farm with a residential unit to house a family. The development activity proposed is a Poultry Farm and a residential unit on a 10ha land at ERF 255 of the Walkersville agricultural area near

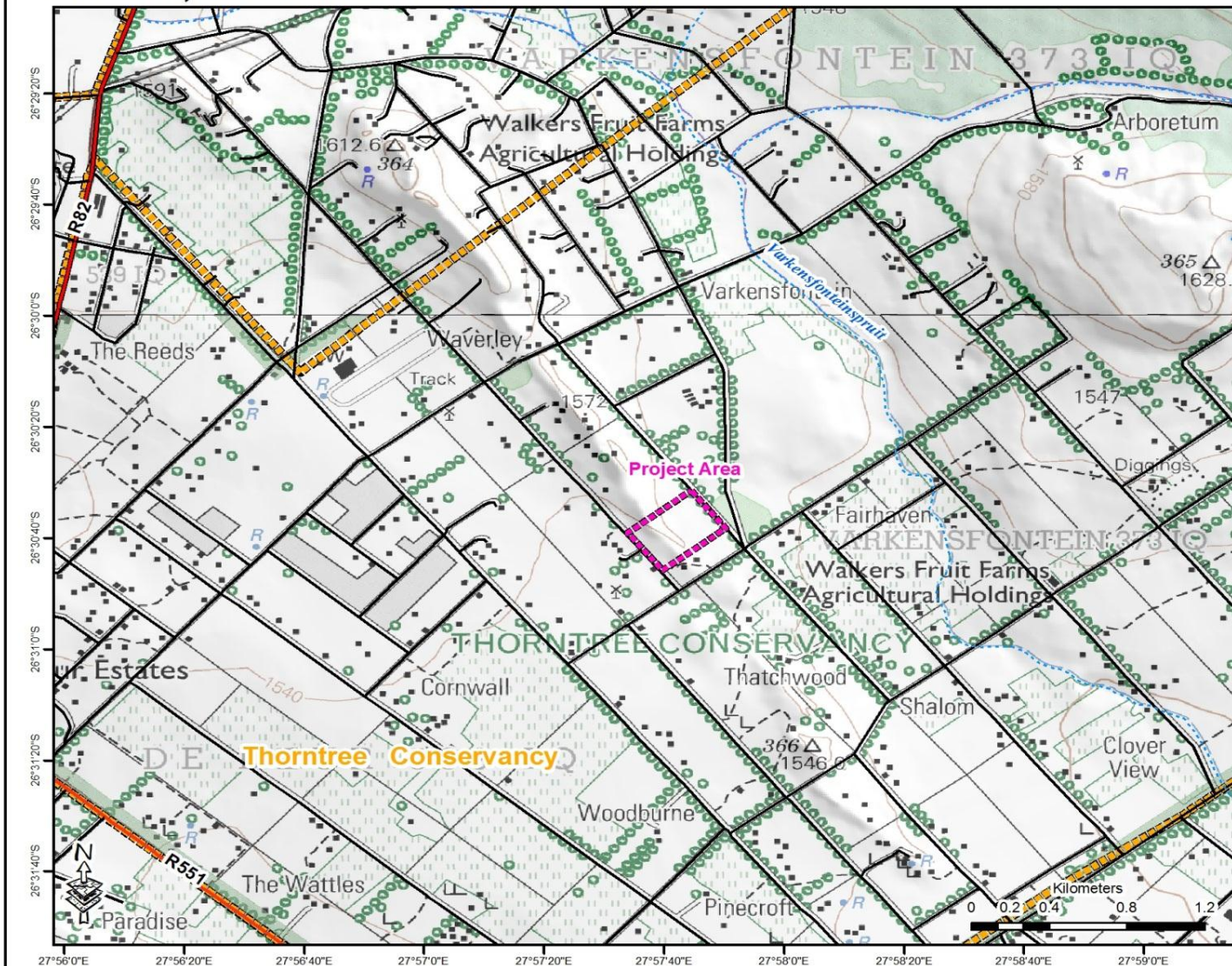
Vereeniging. The poultry facility will initially house 120 000 chickens per cycle and will gradually be built up to have the capacity to handle 360 000 chickens per cycle (six-week per cycle). The chickens will be supplied to a contractor who will be contracted to the activity.

The proposed activities on this land require Environmental Authorisation and therefore, prompt a Basic Assessment to be undertaken. The Basic Assessment Process will establish the potential impacts these activities will have on the environment and comply with environmental legislation requirements. In complying with the NEMA and EIA regulations, the proposed Poultry Farm will need to align its proposed operations with the Environmental Management Programme Report (EMPR) that will be compiled and submitted to GDARD for approval. Improved environmental management of the proposed activity minimize environmental risks associated with the poultry farm.

Location

The proposed development site is located at Erf 255, Meyerton Street, Vereeniging. The site falls within the Midvaal Local Municipality. The property is approximately 10ha in extent and is currently owned by Ms A.A. Naicker. The attached topographic map provides the locality of the site in relation to the roads of Vereeniging.

ERF 255, WALKERVILLE FRUIT FARM



WGS84 Designation
1:25,000 @ A4 paper size

Legend

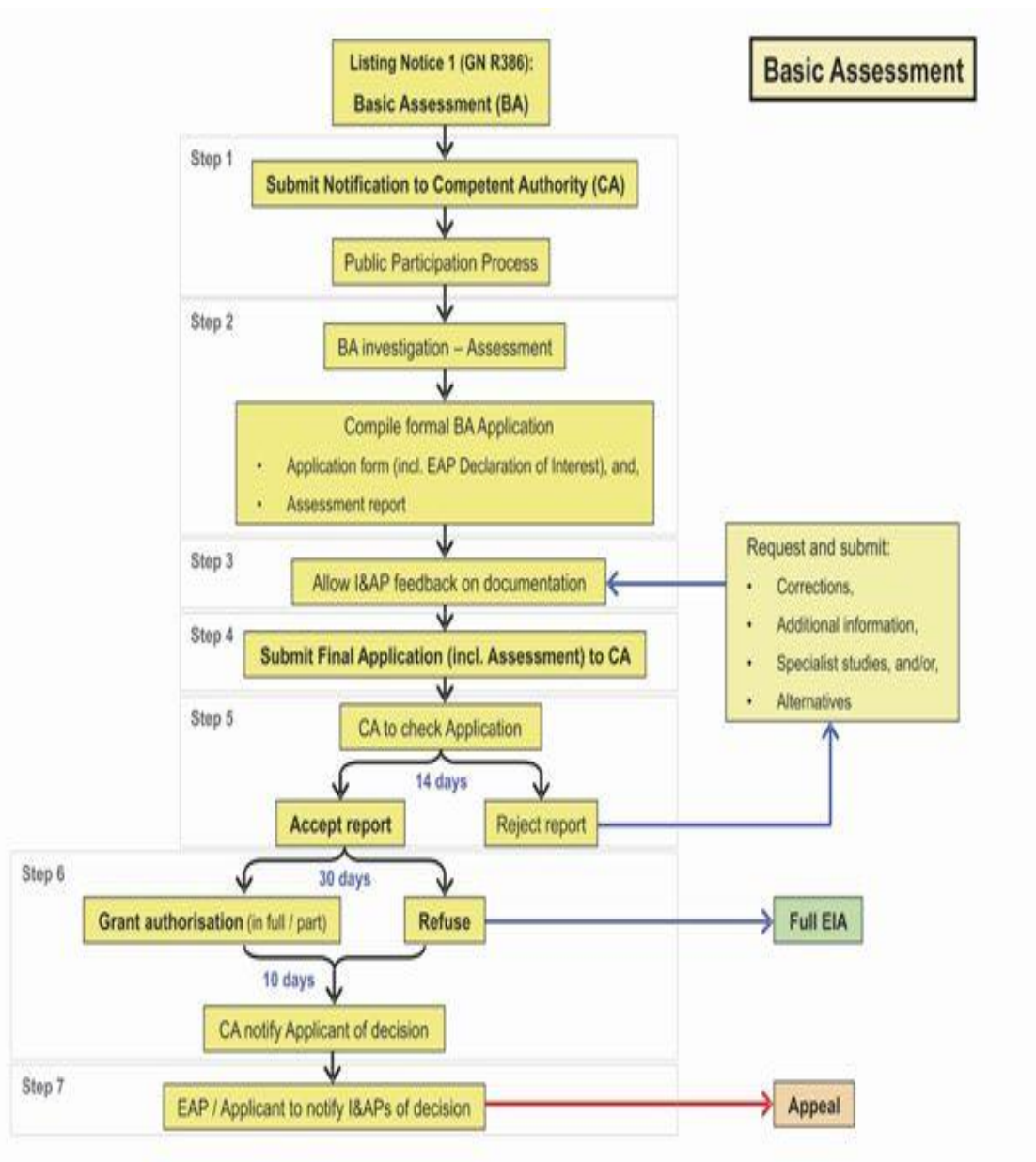
- National Roads
- Regional Routes
- Main Roads
- Secondary Roads
- Other Access
- Non-Perennial
- Perennial
- Project Area
- Conservancy



(w) 011 468 1440
(c) 083 461 6966
(f) 086 270 9637
(e) sharon@envirokey.co.za
(w) www.envirokey.co.za

R.F. van der Merwe
GIS Specialist
October 2012

Flow Chart (Basic Assessment)



**EnviroKey Management Services cc.**

122/2 Lourens Drive
Beaulieu
Kyalami
Gauteng

Phone: 011 468 1440
Cell: 071 875 9437
Fax: 086 270 9637
moses@envirokey.co.za

PO Box 11101
Vorna Valley
Midrand
1686

I&AP Registration

Name:

Address:

Contact Numbers:

Email address:

Comments or queries:

.....
.....

Envirokey Management Services cc

Please return the registration details to Envirokey Management Services cc within 30 days of the date of this notification (26 October 2012). All written comments and registrations received within 30 days will be documented within the Issues and Response Report.

Moses Mathebula

(e): moses@envirokey.co.za

(c): 071 875 9437

(w): 011 468 1440

(f): 086 270 9637

Envirokey Management Services cc will keep you up to date on progress of the environmental authorisation process. Should you wish to attend a public meeting to discuss the environmental impacts of this project, please circle the appropriate choice below and we will send you details of meetings planned for this project.

I would like to attend a public meeting for this project (Circle one):

YES

NO



Envirokey Management Services cc. (2009/204145/23)

Member: Moses Mathebula



EnviroKey Management Services cc.

122 Lourens Drive
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Midrand
Gauteng

Phone: 011 468 1440
Fax: 086 270 9637
moses@envirokey.co.za
www.envirokey.co.za

PO Box 11101
Vorna Valley
Midrand
1686

1 November 2012

Attention: Ward Councilor Rob Jones

Councilor Rob Jones
PO Box 9, Meyerton, 1960
Cell: 082 410 5633
Fax: 0866555049

RE: Basic Assessment and Water Use License Applications for the proposed Poultry Farm at Walkers Fruit Farm.

Dear Councilor Jones

Please find attached the notification of the Basic Assessment and Water Use License Applications that are currently being carried out for the proposed Poultry Farm. The proposed land for development is currently vacant land and the application is to license the proposed activity to comply with the relevant environmental legislation. The Basic Assessment will identify and assess the potential impacts that the proposed activity will have on the environment. The water use license and the incorporation of the recommendations of the Basic Assessment Report (BAR) as well as those of the Environmental Management Plan (EMP) will require that stringent environmental monitoring are carried out on site.

I will register you as a key stakeholder and keep you up to date on the progress of this application. It is anticipated that the draft documentation will be available for public review by mid-December 2012. Should you have any queries, please contact me on the details below.

Kind Regards

Moses Mathebula

Envirokey Management Services cc
Environmental Consultant
(w) 011 468 1440
(c) 071 875 9437
(e) moses@envirokey.co.za



Envirokey Management Services cc. (2009/204145/23)
Member: Moses Mathebula



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Midrand
1686

1 November 2012

Attention: Thorntree Conversation, Mr. Ivan Parkes (Chairperson)

Mr. Ivan Parkes
Meyerton, 1960
Cell: 084 590 2312
Office: 016 590 4228
Email: ivan@thorntree.co.za

RE: Basic Assessment and Water Use License Applications for the proposed Poultry Farm at Walkers Fruit Farm.

Dear Mr. Parkes

Please find attached the notification of the Basic Assessment and Water Use License Applications that are currently being carried out for the proposed Poultry Farm. The proposed land for development is currently vacant land and the application is to license the proposed activity to comply with the relevant environmental legislation. The Basic Assessment will identify and assess the potential impacts that the proposed activity will have on the environment. The water use license and the incorporation of the recommendations of the Basic Assessment Report (BAR) as well as those of the Environmental Management Plan (EMP) will require that stringent environmental monitoring are carried out on site.

I will register you as a key stakeholder and keep you up to date on the progress of this application. It is anticipated that the draft documentation will be available for public review by mid-December 2012. Should you have any queries, please contact me on the details below.

Kind Regards

Moses Mathebula

Envirokey Management Services cc
Environmental Consultant
(w) 011 468 1440
(c) 071 875 9437
(e) moses@envirokey.co.za



Envirokey Management Services cc. (2009/204145/23)
Member: Moses Mathebula

Appendix E3 – Proof of newspaper advertisements

Appendix E4 – Communications to and from key stakeholders

Appendix E5 – Minutes of any public and/or stakeholder meetings

A meeting will be scheduled with the interested and affected parties as the stakeholder who registered issues indicated that he would like to attend a public meeting.

Appendix E6 – Comments and Response Report

**EnviroKey Management Services cc.**

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Drive
Beaulieu
Midrand
Gauteng

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moses@envirokey.co.za
www.envirokey.co.za

PO Box 11101
Vorna Valley
Midrand
1686

Comments & Response Report

For

The Proposed development of a Poultry Farm on
Erf 255 of the Walkers Fruit Farms Small Holdings
of Portion A of Portion of the Farm
Varkensfontein No. 53

Submitted to the Gauteng Department of Agriculture and Rural Development

January 2013

EnviroKey

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Vorna Valley
Midrand
1686

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Fax: 086 270 9637
E-mail: sharon@envirokey.co.za.





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1. Introduction

Envirokey Management Services cc (hereafter Envirokey) has been appointed by Ms A.A. Naicker to undertake the Basic Assessment Process for the proposed development of a Poultry Farm on Erf 255 of the Walkers Fruit Farms Small Holdings of Portion A of Portion of the Farm Varkensfontein No. 53. As part of the required Basic Assessment Process, a public participation process will be carried out. The notification of residents associations, municipalities, ward councilors and local adjacent land owners took place on Thursday 01 November 2012.

The Draft Basic Assessment Report was made available for public review between 17th January and 17th February 2013 issues and concerns included in this report. A public meeting will be scheduled for February 2013.

This document serves to record correspondence between stakeholders and Envirokey as the environmental assessment practitioner.

2. Registered Stakeholders

Table 1 provides the list of registered stakeholders for the proposed developments.

Table 1: Registered stakeholders for the proposed development on Erf 255 of the Walkers Fruit Farms Small Holdings of Portion A of Portion of the Farm Varkensfontein No. 53.

Stakeholders	Contact number	Address	email
1. Ann Naicker Proponent / Developer	(c) 072 650 1177		ann.naicker@vodacom.co.za
2. Sebina Phochana Dept. of Water Affairs	(t) 012 392 1374 (c) 071 3250 2010		phochanas@dwa.gov.za
3. Jako Verster Midvaal Local Municipality	(t) 016 360 5860 (c) 082 783 0057		jakov@midvaal.gov.za
4. Councillor Rob Jones (Ward Councillor)	(c) 082 410 5633		ward5@midvaal.info

Stakeholders	Contact number	Address	email
Midvaal Local Municipality			
5. Ivan Parkes Thorntree Conservancy Group	(t) 016 590 4228 (c) 084 590 2312		ivan@thorntree.co.za
6. Charline Middleditch	(t) 011 392-4155 (c) 082 552 9558		Charline@andycab.co.za
7. Steven v/d Walt	(c) 073 170 4402	388 Plantation Road, Walkers Fruit Farms	N/A
8. Dave Ollewagen	(c) 083 682 1624	Plot 445 Plantation Road, Walkers Fruit Farms	pollyo@webmail.co.za
9. Mdu Ndawo	(c) 083 674 9994	Plot 405 and Plot 413 Versveld Road, Walkers Fruit Farms	mdu@kwandawo.co.za
10. Natasha O'Shea	(c) 082 266 8283	Plot 507 Arthur Street, Walkers Fruit Farms	natashaoshea@live.co.za
11. Gavin O'Shea	(c) 082 442 8904	Plot 507 Arthur Street, Walkers Fruit Farms	N/A
12. Ian McAusland	(c) 082 850 1171	Plot 391 Plantation Road, Walkers Fruit Farms	N/A
13. Colleen McAusland	(c) 072 151 1194	Plot 391 Plantation Road, Walkers Fruit Farms	colleen@shirazanto.co.za
14. Jacques Claassen	(t) 016 423 1650 (c) 082 372 5061	383 Grade Road, Walkers Fruit Farms	vaal@mostotpestcontrol.co.za
15. Charline Middleditch	(t) 011 392 4155 (c) 082 552 9558	Plot 295 Foothill Road, Walkers Fruit Farms	charline@andycab.co.za
16. Celeste Steyn	(c) 082 873 0829	Plot 298 Foothill Road, Walkers Fruit Farms	celeststeyn@live.co.za
17. V.H. Thompson	(c) 081 208 1236	250 Meyerton Road, Walkers Fruit Farms	vict9099@yahoo.com
18. Gerald v Jansveld	(c) 082 907 6586	Plot 422 Woodlands Road, Walkers Fruit Farms	gerald.cuctainrails@gmail.com
19. Odett v Jansveld	(c) 083 253 4718	Plot 422 Woodlands Road, Walkers Fruit Farms	odettvj@gmail.com
20. Tanya	(c) 082 469 2006	Plot 258 Foothill	tanya@telecompabx.co.za

Stakeholders	Contact number	Address	email
Lelothwane		Road, Walkers Fruit Farms	
21. William Lelothwane	N/A	Plot 258 Foothill Road, Walkers Fruit Farms	N/A
22. Shaun Cilliers	(c) 071 551 3206	Plot 391 plantation Road, Walkers Fruit Farms	N/A
23. Maxine Currie	(c) 082 772 6057	Plot 73 5 th Road, Walkers Fruit Farms	budger@alpec.co.za
24. Graham Currie	N/A	Plot 73 5 th Road, Walkers Fruit Farms	N/A
25. Mekki Shanders	(c) 082 447 0829	Cnr Boundary and Daisy Roads, Walkers Fruit Farms	N/A
26. L. Bertolletti	(c) 078 459 5118	272 Foothill Road, Walkers Fruit Farms	N/A
27. C. Bertolletti	(c) 078 800 877 (incomplete)	272 Foothill Road, Walkers Fruit Farms	pbertolletti@worldonlive.co.za
28. George Pieterse	(c) 076 698 7749 (c) 082 624 0015	Plot 269 Power Road, Walkers Fruit Farms	pietersevikigmail.com
29. J.S. Swart	(c) 083 444 7521	Plot 294 Foothill Road, Walkers Fruit Farms	
30. Rolene Swart	(c) 083 670 0449	Plot 294 Foothill Road, Walkers Fruit Farms	luluswart@yahoo.com
31. Dewald Viljoen	(c) 082 850 4974	Plot 256 Foothill Road, Walkers Fruit Farms	dewaldv@mabundaine.co.za
32. Annalize Steenkamp	(c) 083 459 2088	Plot 294 Foothill Road, Walkers Fruit Farms	annualize@boltworld.co.za
33. Mr Mlipha	(c) 083 420 4856	Plot 254 Foothill Road, Walkers Fruit Farms	mliphag@webmail.co.za
34. Mrs Mlipha	(c) 083 420 4856	Plot 254 Walkers Fruit Farms	tibusele@ovi.com

3. Comments and Response

Comments received during the initial Notification Period are listed in the table below with response from Envirokey in the adjacent column to the right.

3.1 Comments on proposed development

To summarize the issues, the main concern is related to the fact that the proposed development on Erf 255 of Walkers Fruit Farm Agricultural Holdings is located in a Conservancy Area (Thorntree Conservancy). Other issues that have been raised by stakeholders include safety impacts due to the increased economic activities in the area; impacts on roads (concerns about traffic volumes and the capacity of current roads to handle / accommodate heavy duty vehicles); distance of chicken scoops from the property borders; smell (odour) emanating from chicken broilers and potential diseases that may be associated with chicken broilers; the potential for impacts on water (contamination of underground water resources and the water table); and waste disposal.

Table 2: Comments and Responses

Stakeholder	Comment	Response from Environmental Assessment Practitioner
1. Celeste Steyn	Conservancy area	- The proposed development does not intend to rezone the area into other uses but to keep with the agricultural theme of the local community. This, it will do with the associated economic benefits to- while taking the necessary precautions to address and adhere to the conservancy theme of the local community. - The proponent of the proposed development has taken a proactive step in adhering to the relevant legislative requirement before undertaking the development. The necessary precautions have been considered and a Heritage Impact Assessment (HIA) of the area was also conducted. The proposed development will be operated in an environmentally friendly manner and in line with the EMP. This document (EMP) also deals with issues related to visual impacts.

Stakeholder	Comment	Response from Environmental Assessment Practitioner
1. Annalize Steenkamp 2. Dewald Viljoen 3. Rolene Swart 4. J.S. Swart 5. Celeste Steyn 6. Nekki Shanders 7. Tanya Lelothwane 8. William Lelothwane 9. Charline Middleditch	Impact on roads Increase in traffic	- No significant increase in traffic is expected on the roads as no chickens will be sold on the property, so the only traffic flow will be from the transportation of chickens, chicken feed and other materials needed to and from the property. - No Traffic Impact Assessment (TIA) was conducted. The only traffic to be generated by the operation of the broilers is that of trucks that deliver chickens to wholesalers no more than three times weekly, one feed truck once per week and a manure truck when needed.
1. Dewald Viljoen 2. Celeste Steyn 3. Tanya Lelothwane 4. William Lelothwane 5. J.S. Swart 6. Rolene Swart 7. Odett van Jansveld	Increase in crime in the area.	- The proponents of the proposed development will take the necessary precautions to minimize crime related to the proposed development in the area. The proponent of the development will hire the services of a security company that will monitor the proposed development activity on a 24-hour 7-days per week basis. No chickens will be sold on site to minimize the influx of people into the area. Most of the staff members will be housed in the property (workers accommodation facility on the property) to alleviate the movement of people to and from the site. There will be about 20 workers living on site and ad hoc daily staff. - However, there is nothing that the proponent of the proposed development can do to mitigate the general crime in the area.
1. Dewald Viljoen 2. Celeste Steyn 3. J.S. Swart 4. Rolene Swart	Smell (Odour)	Appropriate measures will be applied to reduce smells generated by the operation of the broiler activities. (also refer to the EMP in Appendix H).
1. Celeste Steyn 2. J.S. Swart 3. Rolene Swart 4. Nekki Shanders	Flies	Control of flies should be implemented through regularly cleaning of the sites and the use of safe chemical products.
1. L. Bertolletti 2. Maxine Currie	Diseases	A very strict bio security policy and procedural program will be put in place to

Stakeholder	Comment	Response from Environmental Assessment Practitioner
3. Graham Currie 4. Tanya Lelothwane 5. William Lelothwane		prevent disease.
1. L. Bertolletti 2. Coiseppe Bertolletti 3. Dewald Viljoen	Slaughtering of chickens on site.	No chickens will be slaughtered on site. Live chickens will be transported from the site by a contractor.
1. Celeste Steyn	Air pollution	- Various construction activities, if not properly managed, may result in pollution of soil, air and water resources. Best management practices will be applied in terms of fuel usage, dust suppression and general waste management (including discarding of chicken carcasses). If such measures are implemented, the significance of impact on soil, air and water are expected to be low. - Dust will have an impact but will be short in duration (construction phase). - The enforcement of a speed limit on site will mitigate generation of excess dust. - No excavations required. - The matter of the odour associated with poultry farms has been discussed above.
1. Annalize Steenkamp	Water usage	- There is an existing borehole on site for water intended to be used for the proposed development. The development will require about 25 000 of water per day. - It is intended that the housing unit for the family will get its water from the local authority. Connections will be made.
1. Coiseppe Bertolletti 2. Dewald Viljoen 3. Maxine Currie 4. Graham Currie 5. Rolene Swart	Water pollution	Water consumption will be kept to a minimum. To comply with health and safety measures, the chicken scoops will have to be washed and cleaned on a regular basis. (Also refer to the EMPR compiled for the proposed project in Appendix H). A Water Use License is being compiled for the proposed abstraction of water from the borehole. However, the water use on site is not anticipated to

Stakeholder	Comment	Response from Environmental Assessment Practitioner
		trigger any significant impacts on the resource. Stormwater management planning is important in ensuring that the dirty water from the site is not permitted to pollute ground or surface water resources.
1. Coiseppe Bertolletti 2. Dewald Viljoen	Waste handling	- Waste handling, separation and cleaning procedures for the operational phase must be implemented as set out in the EMP. Handling, storage and operational waste including dead carcasses on site must be implemented as per recommendations of the BA Report. - No carcasses will be left astray; it should be kept in a sealed container and when full be delivered to- or collected by crocodile and/or lion farmers for feeding purposes. <i>See Management Plan in EMP.</i> As such, the dead carcasses should not lure scavengers. - Waste generated will be disposed of in a proper manner at a registered landfill site. No waste will be burned or buried on site.
1. Coiseppe Bertolletti 2. Rolene Swart	Manure	Chicken manure will be collected from the proposed development site by a contractor for composting.
1. Dewald Viljoen	Distance of chicken scoops from the property borders.	The position of the chicken scoops will be in line with the relevant legislative requirements and regulations guiding developmental projects of this nature.
1. Geral van Jaarsveld	This stakeholder wanted to know how a poultry farm will improve the area.	The proposed broiler activities bring in positive socio-economic impacts to the area by supplying locals with employment opportunities. Skills will also be imparted to the workers. Construction of broiler activities will require more employees thereby expanding employment opportunities and uplifting the rural community thereby contributing to a moderate positive impact.
1. Mdu Ndawo	Impact on area	Both the positive and negative impacts on area have been addressed above and in the Basic Assessment Report. An EMP has been compiled providing management and mitigation measures to reduce the negative

Stakeholder	Comment	Response from Environmental Assessment Practitioner
		impacts.
1. George Pieterse	There are already many problems in area.	The comment is noted. Clarification should be provided as to the type of problems referred to in order to assess how these problems may affect the proposed development, and how the proposed development may impact on the existing problems.

This Comments and Response Report will be circulated along with the Draft Basic Assessment Report for all interested and affected parties to review. Any concerns or issues raised during the review and comment period will be addressed and incorporated within this Comments and Responses Report and the necessary amendments will be made to the Basic Assessment Report before the final submission to GDARD for decision-making.

4. Conclusion

Comments pertaining particularly to increased traffic and security were received from stakeholders and the only comments relating to the potential environmental impacts are focused on the potential impact on water and odour which have an impact on air quality.

The following specialist study was completed for this project:-

- Heritage Impact Assessment

The Gauteng Department of Agriculture and Rural Development (GDARD) Biodiversity Team was contacted to determine the requirement for any specialist biodiversity studies. The response indicated that no specialist biodiversity assessments were required based on the information from their Conservation Plan. However, they did indicate that:

- The absence of wetlands on site should be verified. Should a wetland be located, a wetland specialist study will be required.

No wetlands are present on the development site or within a 500m radius of the development footprint.

There are no streams within the borders of Erf 255 of Walkers Fruit Farm.

The issues discussed within this document are dealt with comprehensively within the Basic Assessment Report and management and mitigation measures are provided in the Environmental Management Plan. Issues which cannot be mitigated through management actions include:

1. Security; and
2. Impacts on roads around the development site.

Potential impacts that will be well mitigated through the implementation of the EMP include:

1. Smells emanating from the site;
2. Potential for pollution to water resources;
3. Attraction of scavengers to the site through poor management of chicken carcasses;
4. Stipulated Environmental Authorisation process that needs to be followed;
5. Prevention of disease on the sites. In the unlikely event that disease does occur, measures and mitigation actions should be in place to handle such occurrences and deal with it as quickly and efficiently as possible.

This Issues and Response Report will be submitted as a supporting document to the BAR and will be considered by the authorities during decision making. Issues raised by stakeholders will inform the authorities of concerns that need to be taken cognizance of during the review of this proposed development.

Appendix E7 – Comments from I&APs on Basic Assessment Report

The Draft Basic Assessment Report was provided for comment from the 15th January 2013 until the 15 February 2013. The EAP notified all registered stakeholders and reminded these parties to comment on the report.

Appendix E8 – Comments from I&APs on amendments to the BA Report

This will be added should we receive comments on any amendments made subsequent to the public review of the BA Report.

Appendix E9 – Copy of the register of I&APs

Walkersville Poultry Farm Stakeholders List

Stakeholders	Organisation	Email	Fax	Phone
1. Ann Naicker	Proponent / Developer	ann.naicker@vodacom.co.za	n/a	(c) 072 650 1177
2. Sebina Phochana	Dept. of Water Affairs	phochanas@dwa.gov.za	012 392 1359	(t) 012 392 1374 (c) 071 3250 2010
3. Jako Verster	Midvaal Local Municipality	jakov@midvaal.gov.za	016 590 1008	(t) 016 360 5860 (c) 082 783 0057
4. Cliff Hartman	Midvaal Local Municipality	cliffh@midvaal.gov.za	Not provided	Not provided
5. Bongani	Midvaal Local Municipality	bonganib@midvaal.gov.za	Not provided	Not provided
6. Ben	Midvaal Local Municipality	benV@midvaal.gov.za	Not provided	Not provided
7. Malcolm Hack	Midvaal Local Municipality	malcolmh@midvaal.gov.za	Not provided	Not provided
8. Councillor Rob Jones	Midvaal Local Municipality	ward5@midvaal.info	0866555049	(c) 082 410 5633
9. Ivan Parkes	Thorntree Conservancy Group	ivan@thorntree.co.za	n/a	(t) 016 590 4228 (c) 084 590 2312
10. Charline Middleditch	Resident	Charline@andycab.co.za	086 544 9442	(t) 011 392-4155 (c) 082 552 9558
11. Steven v/d Walt	Resident	N/A	N/A	(c) 073 170 4402
12. Dave Ollewagen	Resident	pollyo@webmail.co.za	N/A	(c) 083 682 1624
13. Mdu Ndawo	Resident	mdu@kwandawo.co.za	N/A	(c) 083 674 9994
14. Natasha O'Shea	Resident	natashaoshea@live.co.za	N/A	(c) 082 266 8283
15. Gavin O'Shea	Resident	N/A	N/A	(c) 082 442 8904
16. Ian McAusland	Resident	N/A	N/A	(c) 082 850 1171
17. Colleen McAusland	Resident	colleen@shirazanto.co.za	N/A	(c) 072 151 1194
18. Jacques Claassen	Resident	vaal@mostotpestcontrol.co.za	N/A	(t) 016 423 1650 (c) 082 372 5061
19. Charline Middleditch	Resident	charline@andycab.co.za	N/A	(t) 011 392 4155 (c) 082 552 9558
20. Celeste Steyn	Resident	celeststeyn@live.co.za	N/A	(c) 082 873 0829
21. V.H. Thompson	Resident	vict9099@yahoo.com	N/A	(c) 081 208 1236
22. Gerald v Jansveld	Resident	gerald.cuctainrails@gmail.com	N/A	(c) 082 907 6586
23. Odett v Jansveld	Resident	odettvj@gmail.com	N/A	(c) 083 253 4718
24. Tanya Lelothwane	Resident	tanya@telecompabx.co.za	N/A	(c) 082 469 2006
25. William Lelothwane	Resident	N/A	N/A	N/A

26. Shaun Cilliers	Resident	N/A	N/A	(c) 071 551 3206
27. Maxine Currie	Resident	budger@alpec.co.za	N/A	(c) 082 772 6057
28. Graham Currie	Resident	N/A	N/A	N/A
29. Mekki Shanders	Resident	N/A	N/A	(c) 082 447 0829
30. L. Bertolletti	Resident	N/A	N/A	(c) 078 459 5118
31. C. Bertolletti	Resident	pbertolletti@worldonlive.co.za	N/A	(c) 078 800 877 (incomplete)
32. George Pieterse	Resident	pietersevikigmail.com	N/A	(c) 076 698 7749 (c) 082 624 0015
33. J.S. Swart	Resident		N/A	(c) 083 444 7521
34. Rolene Swart	Resident	luluswart@yahoo.com	N/A	(c) 083 670 0449
35. Dewald Viljoen	Resident	dewaldv@mabundaine.co.za	N/A	(c) 082 850 4974
36. Annalize Steenkamp	Resident	annalize@boltworld.co.za	N/A	(c) 083 459 2088
37. Mr Mlipha	Resident	mliphag@webmail.co.za	N/A	(c) 083 420 4856
38. Mrs. Mlipha	Resident	tibusele@ovi.com	N/A	(c) 083 420 4856

Appendix E10 – Comments from I&APS on the application

The application forms were submitted for public comment from 15th January until 15th February 2013. Any comments and /or concerns will be addressed in the Final BAR.

Appendix E11 – Other

Not applicable

Appendix F – Water Use License authorisation, SAHRA information, service letters from municipalities, water supply information

Not Applicable.

Appendix G – Specialist Reports

Attached below.

Heritage Impact Assessment Report

HERITAGE IMPACT ASSESSMENT FOR THE
PROPOSED WALKER FRUITS FARMS POULTRY
DEVELOPMENT



PREPARED BY:
G&A HERITAGE

PREPARED FOR:



CREDIT SHEET

Project Director

STEPHAN GAIGHER (BA Hons, Archaeology, UP)

Principal Investigator for G&A Heritage

Member of ASAPA (Site Director Status)

SAHRA Accredited Heritage Practitioner

Tel.: (015) 516 1561

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E-mail: stephan@gaheritage.co.za

Website: www.gaheritage.co.za

Report Author

STEPHAN GAIGHER

Disclaimer: Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. G&A Heritage and its personnel will not be held liable for such oversights or for costs incurred as a result of such oversights.

MANAGEMENT SUMMARY



Site name and location: Walker Fruit Farms Poultry Project.

Municipal Area: Sedibeng District Municipality.

Developer: Ann Naicker

Consultant: G&A Heritage, PO Box 522, Louis Trichardt, 0920, South Africa. 38A Voster Str. Louis Trichardt, 0920

Date of Report: 07 November 2012

The purpose of the management summary is to distil the information contained in the report into a format that can be used to give specific results quickly and facilitate management decisions. It is not the purpose of the management summary to repeat in shortened format all the information contained in the report, but rather to give a statement of results for decision making purposes.

The Walker Fruit Farms is located on Erf 255 of Walker Agricultural Holdings in the Vereeniging area.

The purpose of this heritage impact assessment is to outline the cultural heritage sensitivity of the proposed development area and to advise on mitigation should any heritage sites or landscapes be affected.

Findings

No sites of cultural significance could be identified.

No culturally sensitive landscape types could be identified within the study area.

Recommendations

No further recommendations were found necessary.

Fatal Flaws

No fatal flaws were identified.

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LIST OF ABBREVIATIONS

Bp.....	Before Present
COHWHS.....	Cradle of Humankind World Heritage Site
EIA	Early Iron Age
ESA.....	Early Stone Age
Fm.....	Femtometre (10^{-15} m)
GPS	Geographic Positioning System
HIA	Heritage Impact Assessment
LIA.....	Late Iron Age
LSA	Late Stone Age
MYA	Million Years Ago
MSA	Middle Stone Age
NHRA	National Heritage Resources Act no 22 of 1999
SAHRA	South African Heritage Resource Agency
S&EIR.....	Scoping & Environmental Impact Reporting
Um	Micrometre (10^{-6} m)
WGS 84.....	World Geodetic System for 1984

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HERITAGE IMPACT REPORT

HERITAGE IMPACT ASSESSMENT REPORT FOR THE PROPOSED WALKER FRUIT FARMS POULTRY PROJECT.

INTRODUCTION

Legislation and methodology

G&A Heritage was appointed by Envirokey to undertake a first phase heritage impact assessment for the proposed Walker Fruits Poultry Project. Section 27(1) of the South African Heritage Resources Act (25 of 1999) requires that a heritage impact assessment is undertaken for:

- (a) construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
- (b) construction of a bridge or similar structure exceeding 50 m in length; and
- (c) any development, or other activity which will change the character of an area of land, or water –
 - (1) exceeding 10 000 m² in extent;
 - (2) involving three or more existing erven or subdivisions thereof; or
 - (3) involving three or more erven, or subdivisions thereof, which have been consolidated within the past five years; or
- (d) the costs of which will exceed a sum set in terms of regulations; or
- (e) any other category of development provided for in regulations.

A heritage impact assessment is not limited to archaeological artefacts, historical buildings and graves. It is far more encompassing and includes intangible and invisible resources such as places, oral traditions and rituals. A heritage resource is defined as any place or object of cultural significance i.e. of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This includes the following:

- (a) places, buildings, structures and equipment;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and paleontological sites;
- (g) graves and burial grounds, including –
 - (1) ancestral graves,
 - (2) royal graves and graves of traditional leaders,
 - (3) graves of victims of conflict (iv) graves of important individuals,
 - (4) historical graves and cemeteries older than 60 years, and
 - (5) other human remains which are not covered under the Human Tissues Act, 1983 (Act No.65 of 1983 as amended);
- (h) movable objects, including ;
 - (1) objects recovered from the soil or waters of South Africa including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (2) ethnographic art and objects;
 - (3) military objects;
 - (4) objects of decorative art;
 - (5) objects of fine art;
 - (6) objects of scientific or technological interest;
 - (7) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings; and
 - (8) any other prescribed categories, but excluding any object made by a living person;

- (i) battlefields;
- (j) traditional building techniques.

A **'place'** is defined as:

- (a) A site, area or region;
- (b) A building or other structure (which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure);
- (c) a group of buildings or other structures (which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures); and (d) an open space, including a public square, street or park; and in relation to the management of a place, includes the immediate surroundings of a place.

'Structures' means any building, works, device, or other facility made by people and which is fixed to land and any fixtures, fittings and equipment associated therewith older than 60 years.

'Archaeological' means:

- (a) material remains resulting from human activity which are in a state of disuse and are in or on land and are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
- (b) rock art, being a form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and is older than 100 years including any area within 10 m of such representation; and
- (c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land or in the maritime cultural zone referred to in section 5 of the Maritime Zones Act 1994 (Act 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which are older than 60 years or which in terms of national legislation are considered to be worthy of conservation;
- (d) features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found.

'Paleontological' means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

'Grave' means a place of interment and includes the contents, headstone or other marker of and any other structures on or associated with such place. The South African Heritage Resources Agency (SAHRA) will only issue a permit for the alteration of a grave if it is satisfied that every reasonable effort has been made to contact and obtain permission from the families concerned.

The removal of graves is subject to the following procedures as outlined by the SAHRA:

- Notification of the impending removals (using English, Afrikaans and local language media and notices at the grave site);
- Consultation with individuals or communities related or known to the deceased;
- Satisfactory arrangements for the curation of human remains and / or headstones in a museum, where applicable;
- Procurement of a permit from the SAHRA;
- Appropriate arrangements for the exhumation (preferably by a suitably trained archaeologist) and re-interment (sometimes by a registered undertaker, in a formally proclaimed cemetery);
- Observation of rituals or ceremonies required by the families.

Table 1. Impacts on the NHRA Sections

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

	37	Protection of public monuments	None	None
	38	Does activity trigger a HIA?	Yes	HIA

Table 2. NHRA Triggers

Action Trigger	Yes/No	Description
Construction of a road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length.	Yes	Access roads
Construction of a bridge or similar structure exceeding 50m in length.	No	N/A
Development exceeding 5000 m ²	Yes	Poultry Farm
Development involving more than 3 erven or sub divisions	No	N/A
Development involving more than 3 erven or sub divisions that have been consolidated in the past 5 years	No	N/A
Re-zoning of site exceeding 10 000 m ²	No	N/A
Any other development category, public open space, squares, parks or recreational grounds	No	N/A

BACKGROUND INFORMATION

PROPOSED WALKER FRUIT FARMS POULTRY PROJECT

PROJECT DESCRIPTION AND LOCATION

The land for the proposed development is a 10ha vacant land, which is intended to be developed into a Poultry Farm and housing units (one for the family and another for the workers). It is located on Erf 255 of the Walkersville agricultural area, in Meyerton Road, north of the De Deur shopping center in Meyerton. It is planned that the poultry Farm will have a full capacity to house 360 000 chicken on a 6-week cycle. Initially 120 000 chickens will be raised and then expand to its full envisaged capacity inside a 5-year period. Fully automated scoops will be used for the chickens. The contractor and a dedicated vet will supply chicken feed and vaccinations.

Eskom will provide electricity while the Midvaal Local Municipality will provide household water. There is an existing borehole on site for the Poultry Farm.

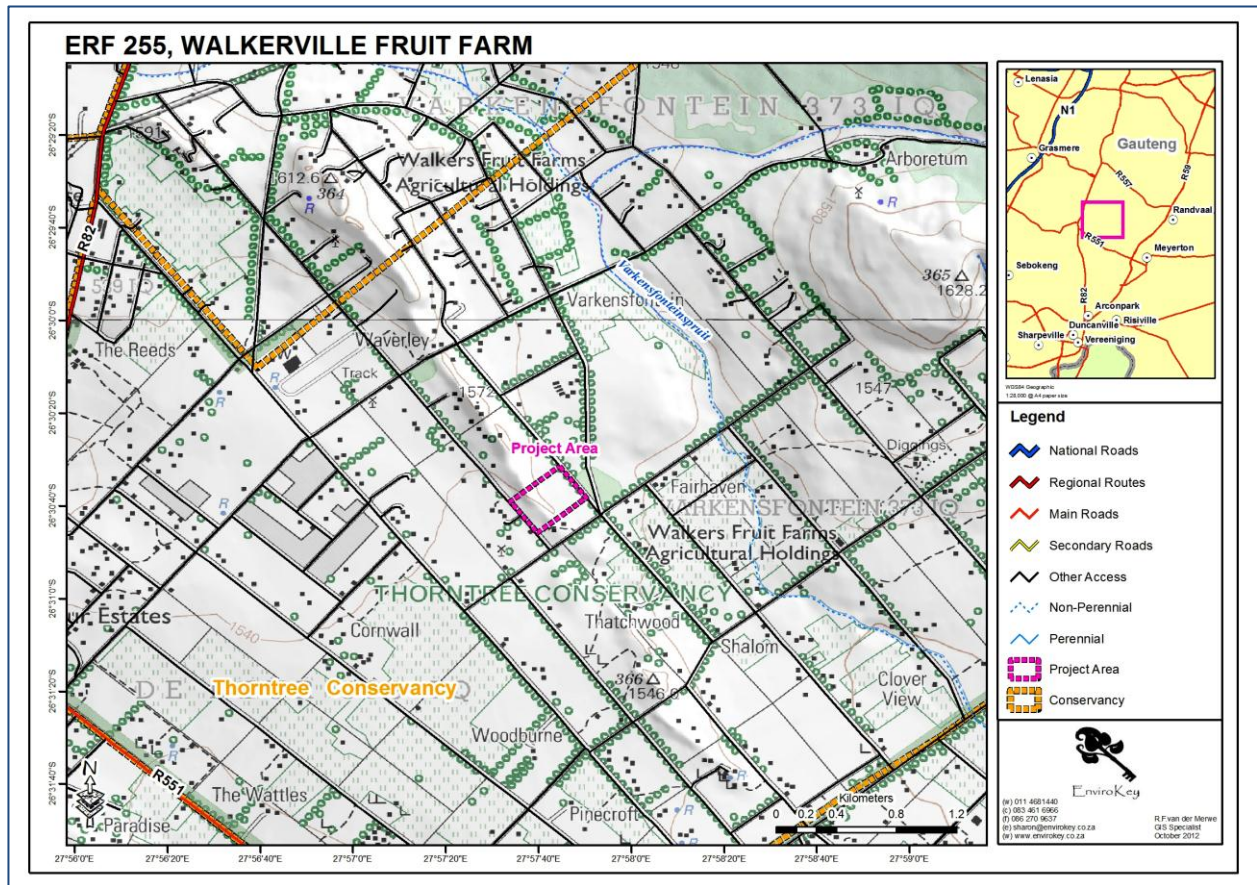


Figure 1. Location Map

ALTERNATIVES CONSIDERED

One alternative was considered

- No-go option where no development takes place.

METHODOLOGY

This study defines the heritage component of the S&EIR process being undertaken for the Walker Fruit Farms Poultry Project. It is described as a first phase (HIA). This report attempts to evaluate both the accumulated heritage knowledge of the area as well as information derived from direct physical observations.

EVALUATING HERITAGE IMPACTS

A combination of document research as well as the determination of the geographic suitability of areas and the evaluation of aerial photographs determined which areas could and should be accessed.

After plotting of the site on a GPS the area was accessed on foot. A combination of a Bluetooth GPS synced with a notebook running Google Earth Pro in Live Tracking Mode was used to ensure that the correct area is surveyed.

Sites were documented by digital photography and geo-located with GPS readings using the WGS 84 datum.

Further techniques (where possible) included interviews with local inhabitants, visiting local museums and information centers and discussions with local experts. All this information was combined with information from an extensive literature study as well as the result of archival studies based on the SAHRA provincial databases.

Geological maps guided investigations into the paleontological riches of the area.

ASSESSING VISUAL IMPACT

Visual impacts of developments result when sites that are culturally celebrated are visually affected by a development. The exact parameters for the determination of visual impacts have not yet been rigidly defined and are still mostly open to interpretation. CNdV Architects and The Department of Environmental Affairs and Development Planning (2006) have developed some guidelines for the management of the visual impacts of wind turbines in the Western Cape, although these have not yet been formalised. In these guidelines they recommend a buffer zone of 1km around significant heritage sites to minimise the visual impact.

ASSUMPTIONS AND RESTRICTIONS

- It is assumed that the SAHRA database locations are correct
- It is assumed that the social impact assessment and public participation process of the S&EIR will result in the identification of any intangible sites of heritage potential.
- It is assumed that the information received from Envirokey is comprehensive and accurate.

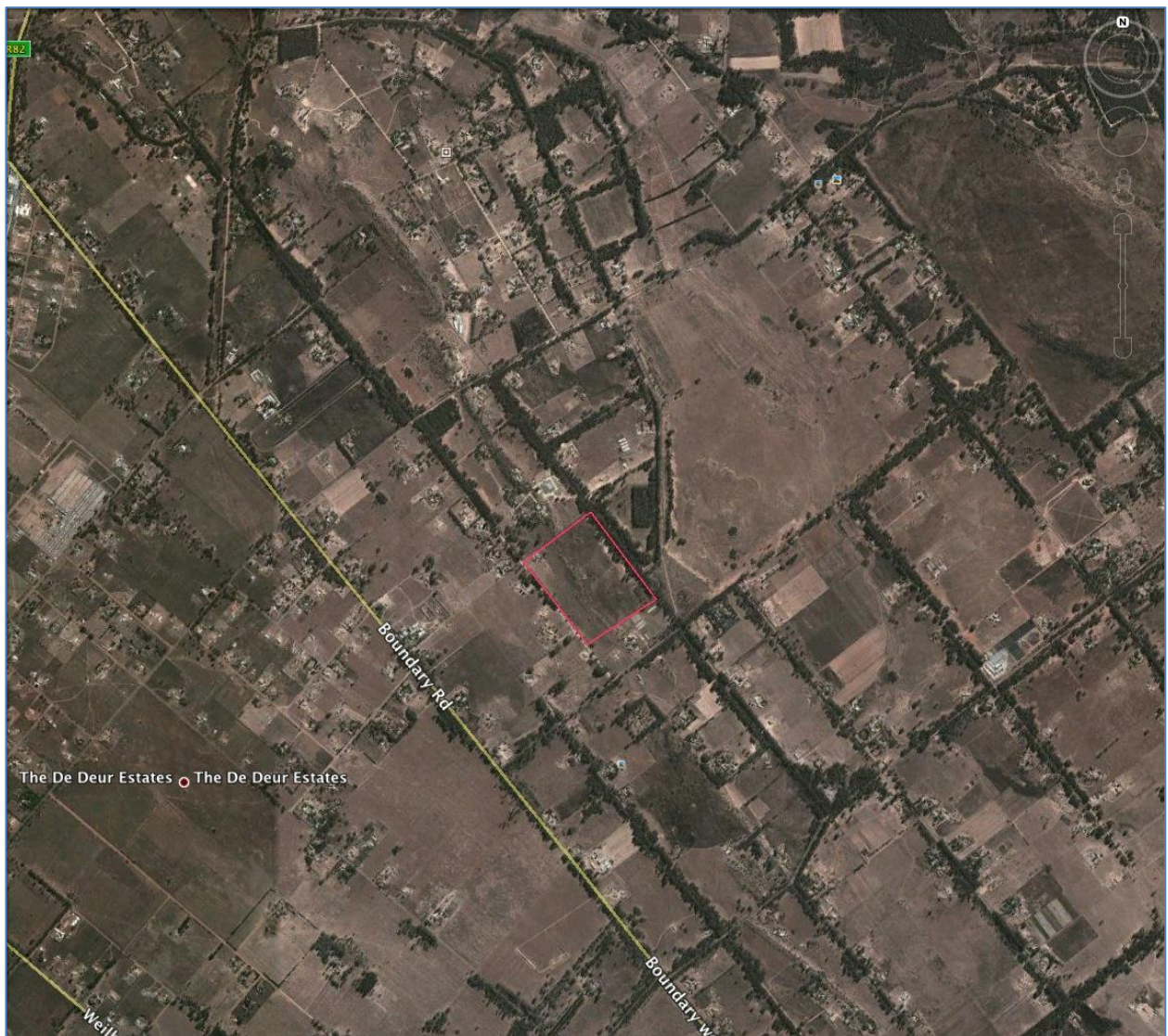


Figure 2. Aerial image of study area

HERITAGE INDICATORS WITHIN THE RECEIVING ENVIRONMENT

REGIONAL CULTURAL CONTEXT

PALEONTOLOGY

It is not anticipated that bedrock will be affected by this development. For this reason no further investigations were made into the paleontology of the area.

STONE AGE

The Stone Age of Southern Gauteng suffers from the same lack of research as the Palaeontology of the area. Due to the regional homogenous nature of the Stone Age it can be assumed that the industries associated with the Western Gauteng sites can also be applied to this area. As with the Iron Age in this area, Prof Revil Mason was responsible for the bulk of early research here.

The oldest stone tools and most primitive stone tool technology, the Oldowan industry, are named after Olduvai Gorge in Tanzania, where tools of this type were first discovered. Sterkfontein has produced the oldest stone tools in Southern Africa – cores and flakes of the Oldowan industry dating to nearly 2-million years ago. These tools were probably made by *Homo habilis* (“Handy man”). The manufacture of stone tools marks the first unique trait of the genus *Homo*. Other primates remain unable to independently create these tools.

Leading on from the Oldowan, the Early Acheulean saw the appearance of handaxes (shaped to a point) and cleavers (shaped to a sharp, cutting edge). Manuports (rocks carried to a site for future use) occurred in larger numbers than before and showed a greater reliance on using stone for tools. Manuports have been found in East and South African sites (especially at Sterkfontein and Swartkrans).

Hundreds of early Acheulean cores, flakes and manuports (tools carried from elsewhere), as well as a smaller number of choppers, handaxes and cleavers, have been recovered from Sterkfontein and Cradle of Humankind sites. Such larger, core-based tools were made mainly from quartzite, which flakes in a predictable way.

The nearest Early Stone Age site to the development is at Klipplaatdrift approximately 10km south. This possibly early Acheulean site was excavated by Mason in 1960 and Partridge in the 1985 (Mason 1961, 1962; Partridge 1985).

Another area with extensive Stone Age deposits is located 10km to the east of the study area within the Vaal- and Klip River valleys. Van Riet Lowe and Van der Elst excavated the original site at Klip River Quarry in the 1940's. During 1947 – 1948 two more sites located at Henley-on-Klip and Badfontein, both relatively close to the study area were identified and superficially excavated. At that stage these sites were attributed to the Stellenbosch Stage I phase or otherwise referred to as the African Chelles-Acheul. Some of these deposits have since been classified as Fauresmith.

A further MSA site with underlying Acheulean deposits was discovered in the Taaibosspuit more recently.

No sensitive LSA sites are located within 10km radius of this development.

IRON AGE

A considerable number of Late Iron Age, stone walled sites, dating from the 18th and the 19th centuries (some of which may have been occupied as early as the 16th century), occur along and on top of the rocky ridges here. These settlements and features in these sites, such as huts,

were built with dry stone, reed and clay available from the mountain and the Klip River (Mason 1968, 1986).

The Late Iron Age sites within Southern Gauteng is a 'spill-over' from a larger concentration which are located further towards the west, while large concentrations of stone walled sites are also located directly to the east of Vereeniging, in the mountainous area around the Suikerbosrand in Heidelberg. The stone walled settlements are concentrated in clusters of sites and sometimes are dispersed over large areas making them vulnerable to developments of various kinds. A site consists of a circular or elliptical outer wall that is composed of a number of scalloped walls facing inwards towards one or more enclosures. Whilst the outer scalloped walls served as dwelling quarters for various family groups, cattle, sheep and goat were stock in the centrally located enclosures. Huts with clay walls and floors were built inside the dwelling units. Pottery and metal items are common on the sites. However, iron and copper were not produced locally on these sites.

The majority of significant Iron Age site are found towards Heidelberg and Suikerbosrand in the east. Towards the west, most of the sites are associated with the Sotho-Tswana ethnic group and occur from the Bankeveld west.

The only local Iron Age site that has been described is from the Vaal Barrage and could be classified as Mason's Uitkomst Iron Age Culture. This site was excavated in 1971.

THE HISTORIC ERA

When gold was discovered in the area in 1886, Johannesburg sprang up from the veld as a rowdy mining camp. Not much more than 100 years ago, what is now the economic and industrial centre of South Africa was then an endless untouched savannah. When the first gold was found, the news spread like wildfire and the area experienced an unprecedented gold rush. The government sent two deputies, who founded a little settlement and named it after the first name they both had in common, Johannesburg. Three years later the place was the biggest town in the country. By 1875, almost 100 000 people lived in Johannesburg and the mines employed more than 75 000 workers. Black people from the homelands were brought in to work in the mines, for at least a year at a time. During this time they were separated from their wives and children and were living under inhumane conditions in the so-called 'hostels'. To stay emotionally in contact with their home and their culture, many of the men started to practise their traditional dances. In the course of the years these performances of the mine dancers also became part of the weekend entertainment for many whites in Johannesburg (<http://www.southafricatransel.net/north/a1johb01.htm>).

Major building developments took place in the 1930s, after South Africa went off the gold standard. In the late 1940s and early 1950s, Hillbrow went high-rise. In the 1950s and early 1960s, the apartheid government constructed the massive agglomeration of townships that became known as Soweto (SOuth WEstern TOwnships). New freeways encouraged massive suburban sprawl to the north of the city. In the late 1960s and early 1970s, great American-style tower blocks (including the Carlton Centre) filled the skyline of the central business district. The central area of the city underwent something of a decline in the 1980s and 1990s when property speculators directed large amounts of capital into suburban shopping malls, decentralised office parks, and entertainment centres. Sandton City was opened in 1973, followed by Rosebank Mall in 1976, and Eastgate in 1979.

The history of Vereeniging is closely related to the history of steel production in the area as well as the development of Vanderbijlpark.

CULTURAL LANDSCAPE

The main cultural landscape type associated with this area is one of limited agricultural activities that are slowly being absorbed by retail, industrial and to a lesser extent, occupational activities. For this reason the cultural identity of the area is not well defined.

PREVIOUS STUDIES

The study area lies within the Thorntree Conservancy in Vereeniging. Currently two other EIA processes are underway within the conservancy;

- Walker/DeDeur Landfill Site EIA
- Tyre Pyrolysis Plant at Plot 110 Walker Fruit Farms

Both these studies refer briefly to the need to conserve heritage sites in the area, however no local sensitivities are described. No HIA studies could be found for these processes.

The area has been the focus of several archaeological studies over the last century, due to its Stone Age deposits;

- Excavations at Henley-On-Klip and Badfontein by C. van Riet Lowe and W. van der Elst in 1947 – 1948.
- Vaal River Bridge MSA site excavated by S.F. le Roux in 1949.
- Excavations at the Klip River Terraces by S.F. le Roux in 1972.
- Excavations at Taaibosspruit near Vereeniging by S.F. le Roux in 1951

These excavations indicated the significance of Stone Age sites within the study area. These sites were however all located within the Klip River and Taaibosspruit valleys. There is however no riverbed running through the study area.



Figure 3. General Landscape

MEASURING AND EVALUATING THE CULTURAL SENSITIVITY OF THE STUDY AREA

In 2003 the SAHRA compiled the following guidelines to evaluate the cultural significance of individual heritage resources:

TYPE OF RESOURCE

- Place
- Archaeological Site
- Structure
- Grave
- Paleontological Feature
- Geological Feature

TYPE OF SIGNIFICANCE

1. HISTORIC VALUE

It is important in the community, or pattern of history

- Important in the evolution of cultural landscapes and settlement patterns
- Important in exhibiting density, richness or diversity of cultural features illustrating the human occupation and evolution of the nation, province, region or locality.
- Important for association with events, developments or cultural phases that have had a significant role in the human occupation and evolution of the nation, province, region or community.
- Important as an example for technical, creative, design or artistic excellence, innovation or achievement in a particular period.

It has strong or special association with the life or work of a person, group or organisation of importance in history

- Importance for close associations with individuals, groups or organisations whose life, works or activities have been significant within the history of the nation, province, region or community.

It has significance relating to the history of slavery

- Importance for a direct link to the history of slavery in South Africa.

2. AESTHETIC VALUE

It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

- Important to a community for aesthetic characteristics held in high esteem or otherwise valued by the community.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.
- In the case of an historic precinct, importance for the aesthetic character created by the individual components which collectively form a significant streetscape, townscape or cultural environment.

3. SCIENTIFIC VALUE

It has potential to yield information that will contribute to an understanding of natural or cultural heritage

- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.
- Importance for information contributing to a wider understanding of the origin of the universe or of the development of the earth.
- Importance for information contributing to a wider understanding of the origin of life; the development of plant or animal species, or the biological or cultural development of hominid or human species.
- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the nation, Province, region or locality.
- It is important in demonstrating a high degree of creative or technical achievement at a particular period
- Importance for its technical innovation or achievement.

4. SOCIAL VALUE

- It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
- Importance as a place highly valued by a community or cultural group for reasons of social, cultural, religious, spiritual, symbolic, aesthetic or educational associations.
- Importance in contributing to a community's sense of place.

DEGREES OF SIGNIFICANCE

1. RARITY

It possesses uncommon, rare or endangered aspects of natural or cultural heritage.

- Importance for rare, endangered or uncommon structures, landscapes or phenomena.

2. REPRESENTIVITY

- It is important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects.
- Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.
- Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.

The table below illustrates how a site's heritage significance is determined

Spheres of Significance	High	Medium	Low
International			
National			
Provincial			
Regional			
Local			
Specific Community			

What other similar sites may be compared to this site?

ASSESSMENT OF IMPACTS

ACTIVITIES THAT WILL AFFECT THE HERITAGE ENVIRONMENT

IMPACT STATEMENT

PALEONTOLOGICAL SITES

No paleontological sites of high value could be identified. Paleontological sites could be affected if bedrock was to be disturbed during the trenching activities.

Mitigation

Paleontological monitoring during excavation activities where bedrock is to be disturbed.

ARCHEOLOGICAL SITES

No Archaeological sites were identified.

Mitigation

No further mitigation is necessary, provided sub-surface sites are not uncovered during construction activities.

BUILT ENVIRONMENT

Some modern structures were identified on the property adjacent to the site these include;

- Un-surfaced roads (modern)
- Footpaths
- Concrete Reservoir
- Stone walled building

The stone walled building (pictured below), could easily be interpreted as a historic structure due to its construction method and style. The building consists of a cemented stone construction.



Figure 4. Stone walled building

Several indicators, however signals that this building was quite recently constructed;

- The building was never inhabited or even completed as no roofing was placed on it. Rafter supports would have been constructed had this been the case.
- The most obvious indication of the building's recent nature is the inclusion of factory made concrete lintels in its construction. The earliest manufacturer of pre-stressed concrete lintels in the Gauteng area started operations in 1968 in Meyerton (*Stresso Pre-Stressed Concrete*). It is therefore impossible that the building could be older than this date, placing it well outside of the 60-year cut-off date for preservation by the NHRA of 1999.

Mitigation

No further mitigation is necessary.

CULTURAL LANDSCAPE

The following landscape types were identified during the study.

Landscape Type	Description	Occurrence still possible?	Identified on site?
1 Paleontological	Mostly fossil remains. Remains include microbial fossils such as found in Baberton Greenstones	Yes, sub-surface	No
2 Archaeological	Evidence of human occupation associated with the following phases – Early-, Middle-, Late Stone Age, Early-, Late Iron Age, Pre-Contact Sites, Post-Contact Sites	Yes, sub-surface	No
3 Historic Built Environment	- Historical townscapes/streetscapes - Historical structures; i.e. older than 60 years - Formal public spaces - Formally declared urban conservation areas - Places associated with social identity/displacement	Yes	Yes. Thorntree Conservancy
4 Historic Farmland	These possess distinctive patterns of settlement and historical features such as: - Historical farm yards - Historical farm workers villages/settlements - Irrigation furrows - Tree alignments and groupings - Historical routes and pathways - Distinctive types of planting - Distinctive architecture of cultivation e.g. planting blocks, trellising, terracing, ornamental planting.	No	No
5 Historic rural town	- Historic mission settlements - Historic townscapes	No	No
6 Pristine natural landscape	- Historical patterns of access to a natural amenity - Formally proclaimed nature reserves - Evidence of pre-colonial occupation - Scenic resources, e.g. view corridors, viewing sites, visual edges, visual linkages - Historical structures/settlements older than 60 years - Pre-colonial or historical burial sites - Geological sites of cultural significance.	No	No
7 Relic Landscape	- Past farming settlements - Past industrial sites	No	No

	- Places of isolation related to attitudes to medical treatment - Battle sites - Sites of displacement,		
8 Burial grounds and grave sites	- Pre-colonial burials (marked or unmarked, known or unknown) - Historical graves (marked or unmarked, known or unknown) - Graves of victims of conflict - Human remains (older than 100 years) - Associated burial goods (older than 100 years) - Burial architecture (older than 60 years)	No	No
9 Associated Landscapes	- Sites associated with living heritage e.g. initiation sites, harvesting of natural resources for traditional medicinal purposes - Sites associated with displacement & contestation - Sites of political conflict/struggle - Sites associated with an historic event/person - Sites associated with public memory	No	No
10 Historical Farmyard	- Setting of the yard and its context - Composition of structures - Historical/architectural value of individual structures - Tree alignments - Views to and from - Axial relationships - System of enclosure, e.g. defining walls - Systems of water reticulation and irrigation, e.g. furrows - Sites associated with slavery and farm labour - Colonial period archaeology	No	No
11 Historic institutions	- Historical prisons - Hospital sites - Historical school/reformatory sites - Military bases	No	No
12 Scenic visual	- Scenic routes	No	No
13 Amenity landscape	- View sheds - View points - Views to and from - Gateway conditions - Distinctive representative landscape conditions - Scenic corridors	No	No

Mitigation

It is recommended that the development designs take into account the positive and negative characteristics of the existing cultural landscape type and that they endeavor to promote the positive aspects while at the same time mitigating the negative aspects

IMPACT ASSESSMENT MATRIX

No sites were identified.

RESOURCE MANAGEMENT RECOMMENDATIONS

Although unlikely, sub-surface remains of heritage sites could still be encountered during the construction activities associated with the project. Such sites would offer no surface indication of their presence due to the sites high state of alteration. The following indicators of unmarked sub-surface sites could be encountered:

- Ash deposits (unnaturally grey appearance of soil compared to the surrounding substrate);
- Bone concentrations, either animal or human;
- Ceramic fragments such as pottery shards either historic or pre-contact;
- Stone concentrations of any formal nature.

The following recommendations are given should any sub-surface remains of heritage sites be identified as indicated above:

- All operators of excavation equipment should be made aware of the possibility of the occurrence of sub-surface heritage features and the following procedures should they be encountered.
- All construction in the immediate vicinity (50m radius of the site) should cease.
- The heritage practitioner should be informed as soon as possible.
- In the event of obvious human remains the South African Police Services (SAPS) should be notified.
- Mitigation measures (such as refilling etc.) should not be attempted.
- The area in a 50m radius of the find should be cordoned off with hazard tape.
- Public access should be limited.
- The area should be placed under guard.
- No media statements should be released until such time as the heritage practitioner has had sufficient time to analyze the finds.

CONCLUSION

The area investigated shows some signs of human activities. None of these however have any cultural heritage significance at this stage. No further mitigation is needed at this stage. It is recommended that should bedrock be affected during trenching activities that a palaeontologist be appointed to compile a paleontological desktop study.

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APPENDIX A

GENERAL METHODOLOGY

METHODOLOGY

INVENTORY

Inventory studies involve the in-field survey and recording of archaeological resources within a proposed development area. The nature and scope of this type of study is defined primarily by the results of the overview study. In the case of site-specific developments, direct implementation of an inventory study may preclude the need for an overview.

There are a number of different methodological approaches to conducting inventory studies. Therefore, the proponent, in collaboration with the archaeological consultant, must develop an inventory plan for review and approval by the SAHRA prior to implementation (*Dincause, Dena F., H. Martin Wobst, Robert J. Hasenstab and David M. Lacy 1984*).

SITE SURVEYING

Site surveying is the process by which archaeological sites are located and identified on the ground. Archaeological site surveys often involve both surface inspection and subsurface testing. For the purposes of heritage investigations, *archaeological sites* refer to any site with heritage potential (i.e. historic sites, cultural sites, rock art sites etc.).

A systematic surface inspection involves a foot traverse along pre-defined linear transects which are spaced at systematic intervals across the survey area. This approach is designed to achieve representative area coverage. Alternatively, an archaeological site survey may involve a non-systematic or random walk across the survey area. Subsurface testing is an integral part of archaeological site survey. The purpose of subsurface testing, commonly called "shovel testing", is to:

- (a) assist in the location of archaeological sites which are buried or obscured from the surveyor's view, and
- (b) help determine the horizontal and vertical dimensions and internal structure of a site.

In this respect, subsurface testing should not be confused with evaluative testing, which is a considerably more intensive method of assessing site significance (*King, Thomas F., 1978*).

Once a site is located, subsurface testing is conducted to record horizontal extent, depth of the cultural matrix, and degree of internal stratification. Because subsurface testing, like any form of site excavation, is destructive it should be conducted only when necessary and in moderation.

Subsurface testing is usually accomplished by shovel, although augers and core samplers are also used where conditions are suitable. Shovel test units averaging 40 square cm are generally appropriate, and are excavated to a sterile stratum (i.e. C Horizon, alluvial till, etc.).

Depending on the site survey strategy, subsurface testing is conducted systematically or randomly across the survey area. Other considerations such as test unit location, frequency, depth and interval spacing will also depend on the survey design as well as various biophysical factors. (*Lightfoot, Keng G. 1989*).

SURVEY SAMPLING

Site survey involves the complete or partial inspection of a proposed project area for the purpose of locating archaeological or other heritage sites. Since there are many possible approaches to field survey, it is important to consider the biophysical conditions and archaeological site potential of the survey area in designing the survey strategy.

Ideally, the archaeological site inventory should be based on intensive survey of every portion of the impact area, as maximum area coverage will provide the most comprehensive understanding of archaeological and other heritage resource density and distribution. However, in many cases the size of the project area may render a complete survey impractical because of time and cost considerations.

In some situations it may be practical to intensively survey only a sample of the entire project area. Sample selection is approached systematically, based on accepted statistical sampling procedures, or judgementally, relying primarily on subjective criteria (*Butler, W., 1984*).

SYSTEMATIC SURVEY SAMPLING

A systematic sample survey is designed to locate a representative sample of archaeological or heritage resources within the project area. A statistically valid sample will allow predictions to be made regarding total resource density, distribution and variability. In systematic sample surveys it may be necessary to exempt certain areas from intensive inspection owing to excessive slope, water bodies, landslides, land ownership, land use or other factors. These areas must be explicitly defined. Areas characterized by an absence of road access or dense vegetation should not be exempted. (*Dunnell, R.C., Dancey W.S. 1983*).

JUDGEMENTAL SURVEY SAMPLING

Under certain circumstances, it is appropriate to survey a sample of the project area based entirely on professional judgement regarding the location of sites. Only those areas which can reasonably be expected to contain archaeological or heritage sites are surveyed.

However, a sufficient understanding of the cultural and biophysical factors which influenced or accounted for the distribution of these sites over the landscape is essential. Careful consideration must be given to ethnographic patterns of settlement, land use and resource exploitation; the kinds and distribution of aboriginal food sources; and restrictions on site location imposed by physical terrain, climatic regimes, soil chemistry or other factors. A judgemental sample survey is not desirable if statistically valid estimates of total heritage resource density and variability are required (*McManamon F.P. 1984*).

ASSESSMENT

Assessment studies are only required where conflicts have been identified between heritage resources and a proposed development. These studies require an evaluation of the heritage resource to be impacted, as well as an assessment of project impacts. The purpose of the assessment is to provide recommendations as to the most appropriate manner in which the resource may be managed in light of the identified impacts. Management options may include alteration of proposed development plans to avoid resource impact, mitigative studies directed at retrieving resource values prior to impact, or compensation for the unavoidable loss of resource values.

It is especially important to utilize specialists at this stage of assessment. The evaluation of any archaeological resource should be performed by professionally qualified individuals.

SITE EVALUATION

Techniques utilized in evaluating the significance of a heritage site include systematic surface collecting and evaluative testing. Systematic surface collection is employed wherever archaeological remains are evident on the ground surface. However, where these sites contain buried deposits, some degree of evaluative testing is also required.

Systematic surface collection from archaeological sites should be limited, insofar as possible, to a representative sample of materials. Unless a site is exceptionally small and limited to the surface, no attempt should be made at this stage to collect all or even a major portion of the materials. Intensive surface collecting should be reserved for full scale data recovery if mitigative studies are required.

Site significance is determined following an analysis of the surface collected and/or excavated materials (*Miller, C.L. II, 1989*).

SIGNIFICANCE CRITERIA

There are several kinds of significance, including scientific, public, ethnic, historic and economic, that need to be taken into account when evaluating heritage resources. For any site, explicit criteria are used to measure these values. Checklists of criteria for evaluating pre-contact and post-contact archaeological sites are provided in Appendix B and Appendix C. These checklists are not intended to be exhaustive or inflexible. Innovative approaches to site evaluation which emphasize quantitative analysis and objectivity are encouraged. The process used to derive a measure of relative site

significance must be rigorously documented, particularly the system for ranking or weighting various evaluated criteria.

Site integrity, or the degree to which a heritage site has been impaired or disturbed as a result of past land alteration, is an important consideration in evaluating site significance. In this regard, it is important to recognize that although an archaeological site has been disturbed, it may still contain important scientific information.

Heritage resources may be of scientific value in two respects. The potential to yield information which, if properly recovered, will enhance understanding of Southern African human history is one appropriate measure of scientific significance. In this respect, archaeological sites should be evaluated in terms of their potential to resolve current archaeological research problems. Scientific significance also refers to the potential for relevant contributions to other academic disciplines or to industry.

Public significance refers to the potential a site has for enhancing the public's understanding and appreciation of the past. The interpretive, educational and recreational potential of a site are valid indications of public value. Public significance criteria such as ease of access, land ownership, or scenic setting are often external to the site itself. The relevance of heritage resource data to private industry may also be interpreted as a particular kind of public significance.

Ethnic significance applies to heritage sites which have value to an ethnically distinct community or group of people. Determining the ethnic significance of an archaeological site may require consultation with persons having special knowledge of a particular site. It is essential that ethnic significance be assessed by someone properly trained in obtaining and evaluating such data.

Historic archaeological sites may relate to individuals or events that made an important, lasting contribution to the development of a particular locality or the province. Historically important sites also reflect or commemorate the historic socioeconomic character of an area. Sites having high historical value will also usually have high public value.

The economic or monetary value of a heritage site, where calculable, is also an important indication of significance. In some cases, it may be possible to project monetary benefits derived from the public's use of a heritage site as an educational or recreational facility. This may be accomplished by employing established economic evaluation methods; most of which have been developed for valuating outdoor recreation. The objective is to determine the willingness of users, including local residents and tourists, to pay for the experiences or services the site provides even though no payment is presently being made. Calculation of user benefits will normally require some study of the visitor population (*Smith, L.D. 1977*).

ASSESSING IMPACTS

A heritage resource impact may be broadly defined as the net change between the integrity of a heritage site with and without the proposed development. This change may be either beneficial or adverse.

Beneficial impacts occur wherever a proposed development actively protects, preserves or enhances a heritage resource. For example, development may have a beneficial effect by preventing or lessening natural site erosion. Similarly, an action may serve to preserve a site for future investigation by covering it with a protective layer of fill. In other cases, the public or economic significance of an archaeological site may be enhanced by actions which facilitate non-destructive public use. Although beneficial impacts are unlikely to occur frequently, they should be included in the assessment.

More commonly, the effects of a project on heritage sites are of an adverse nature. Adverse impacts occur under conditions that include:

- (a) destruction or alteration of all or part of a heritage site;
- (b) isolation of a site from its natural setting; and
- (c) introduction of physical, chemical or visual elements that are out-of-character with the heritage resource and its setting.

Adverse effects can be more specifically defined as direct or indirect impacts. Direct impacts are the immediately demonstrable effects of a project which can be attributed to particular land modifying actions. They are directly caused by a project or its ancillary facilities and occur at the same time and place. The immediate consequences of a project action, such as slope failure following reservoir inundation, are also considered direct impacts.

Indirect impacts result from activities other than actual project actions. Nevertheless, they are clearly induced by a project and would not occur without it. For example, project development may induce changes in land use or population density, such as increased urban and recreational development, which may indirectly impact upon heritage sites. Increased vandalism of heritage sites, resulting from improved or newly introduced access, is also considered an indirect impact. Indirect impacts are much more difficult to assess and quantify than impacts of a direct nature.

Once all project related impacts are identified, it is necessary to determine their individual level-of-effect on heritage resources. This assessment is aimed at determining the extent or degree to which future opportunities for scientific research, preservation, or public appreciation are foreclosed or otherwise adversely affected by a proposed action. Therefore, the assessment provides a reasonable indication of the relative significance or importance of a particular impact. Normally, the assessment should follow site evaluation since it is important to know what heritage values may be adversely affected.

The assessment should include careful consideration of the following level-of-effect indicators, which are defined in Appendix D:

- magnitude
- severity
- duration
- range
- frequency
- diversity
- cumulative effect
- rate of change

The level-of-effect assessment should be conducted and reported in a quantitative and objective fashion. The methodological approach, particularly the system of ranking level-of-effect indicators, must be rigorously documented and recommendations should be made with respect to managing uncertainties in the assessment. (Zubrow, Ezra B.A., 1984).

The study area was surveyed using standard archaeological surveying methods. The area was surveyed using directional parameters supplied by the GPS and surveyed by foot. This technique has proven to result in the maximum coverage of an area. This action is defined as;

'an archaeologist being present in the course of the carrying-out of the development works (which may include conservation works), so as to identify and protect archaeological deposits, features or objects which may be uncovered or otherwise affected by the works' (DAHGI 1999a, 28).

Standard archaeological documentation formats were employed in the description of sites. Using standard site documentation forms as comparable medium, it enabled the surveyors to evaluate the relative importance of sites found. Furthermore GPS (Global Positioning System) readings of all finds and sites were taken. This information was then plotted using a **Garmin Colorado** GPS (WGS 84- datum).

Indicators such as surface finds, plant growth anomalies, local information and topography were used in identifying sites of possible archaeological importance. Test probes were done at intervals to determine sub-surface occurrence of archaeological material. The importance of sites was assessed by comparisons with published information as well as comparative collections.

Test excavation is that form of archaeological excavation where the purpose is to establish the nature and extent of archaeological deposits and features present in a location which it is proposed to develop (though not normally to fully investigate those deposits or features) and allow an assessment to be made of the archaeological impact of the proposed development. It may also be referred to as archaeological testing' (DAHGI 1999a, 27).

'Test excavation should not be confused with, or referred to as, archaeological assessment which is the overall process of assessing the archaeological impact of development. Test excavation is one of the techniques in carrying out archaeological assessment which may also include, as appropriate, documentary research, field walking, examination of upstanding or visible features or structures,

examination of aerial photographs, satellite or other remote sensing imagery, geophysical survey, and topographical assessment' (DAHGI 1999b, 18).

Scientific Significance

(a) Does the site contain evidence which may substantively enhance understanding of culture history, culture process, and other aspects of local and regional prehistory?

- internal stratification and depth
- chronologically sensitive cultural items
- materials for absolute dating
- association with ancient landforms
- quantity and variety of tool type
- distinct intra-site activity areas
- tool types indicative of specific socio-economic or religious activity
- cultural features such as burials, dwellings, hearths, etc.
- diagnostic faunal and floral remains
- exotic cultural items and materials
- uniqueness or representativeness of the site
- integrity of the site

(b) Does the site contain evidence which may be used for experimentation aimed at improving archaeological methods and techniques?

- monitoring impacts from artificial or natural agents
- site preservation or conservation experiments
- data recovery experiments
- sampling experiments
- intra-site spatial analysis

(c) Does the site contain evidence which can make important contributions to paleoenvironmental studies?

- topographical, geomorphological context
- depositional character
- diagnostic faunal, floral data

(d) Does the site contain evidence which can contribute to other scientific disciplines such as hydrology, geomorphology, pedology, meteorology, zoology, botany, forensic medicine, and environmental hazards research, or to industry including forestry and commercial fisheries?

Public Significance

(a) Does the site have potential for public use in an interpretive, educational or recreational capacity?

integrity of the site

technical and economic feasibility of restoration and development for public use

visibility of cultural features and their ability to be easily interpreted

accessibility to the public

opportunities for protection against vandalism

representativeness and uniqueness of the site

aesthetics of the local setting

proximity to established recreation areas

present and potential land use

land ownership and administration

legal and jurisdictional status

local community attitude toward development

(b) Does the site receive visitation or use by tourists, local residents or school groups?

Ethnic Significance

(a) Does the site presently have traditional, social or religious importance to a particular group or community?

ethnographic or ethno-historic reference

documented local community recognition or, and concern for, the site

Economic Significance

(a) What value of user-benefits may be placed on the site?

visitors' willingness-to-pay

visitors' travel costs

Scientific Significance

(a) Does the site contain evidence which may substantively enhance understanding of historic patterns of settlement and land use in a particular locality, regional or larger area?

(b) Does the site contain evidence which can make important contributions to other scientific disciplines or industry?

Historic Significance

(a) Is the site associated with the early exploration, settlement, land use, or other aspect of southern Africa's cultural development?

(b) Is the site associated with the life or activities of a particular historic figure, group, organization, or institution that has made a significant contribution to, or impact on, the community, province or nation?

(c) Is the site associated with a particular historic event whether cultural, economic, military, religious, social or political that has made a significant contribution to, or impact on, the community, province or nation?

(d) Is the site associated with a traditional recurring event in the history of the community, province, or nation, such as an annual celebration?

Public Significance

(a) Does the site have potential for public use in an interpretive, educational or recreational capacity?

visibility and accessibility to the public

ability of the site to be easily interpreted

opportunities for protection against vandalism

economic and engineering feasibility of reconstruction, restoration and maintenance

representativeness and uniqueness of the site

proximity to established recreation areas

compatibility with surrounding zoning regulations or land use

land ownership and administration

local community attitude toward site preservation, development or destruction

present use of site

(b) Does the site receive visitation or use by tourists, local residents or school groups?

Ethnic Significance

(a) Does the site presently have traditional, social or religious importance to a particular group or community?

Economic Significance

(a) What value of user-benefits may be placed on the site?

visitors' willingness-to-pay

visitors' travel costs

Integrity and Condition

(a) Does the site occupy its original location?

(b) Has the site undergone structural alterations? If so, to what degree has the site maintained its original structure?

(c) Does the original site retain most of its original materials?

(d) Has the site been disturbed by either natural or artificial means?

Other

(a) Is the site a commonly acknowledged landmark?

(b) Does, or could, the site contribute to a sense of continuity or identity either alone or in conjunction with similar sites in the vicinity?

(c) Is the site a good typical example of an early structure or device commonly used for a specific purpose throughout an area or period of time?

(d) Is the site representative of a particular architectural style or pattern?

Indicators of Impact Severity

Magnitude

The amount of physical alteration or destruction which can be expected. The resultant loss of heritage value is measured either in amount or degree of disturbance.

Severity

The irreversibility of an impact. Adverse impacts which result in a totally irreversible and irretrievable loss of heritage value are of the highest severity.

Duration

The length of time an adverse impact persists. Impacts may have short-term or temporary effects, or conversely, more persistent, long-term effects on heritage sites.

Range

The spatial distribution, whether widespread or site-specific, of an adverse impact.

Frequency

The number of times an impact can be expected. For example, an adverse impact of variable magnitude and severity may occur only once. An impact such as that resulting from cultivation may be of recurring or on-going nature.

Diversity

The number of different kinds of project-related actions expected to affect a heritage site.

Cumulative Effect

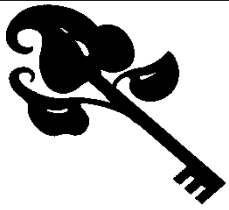
A progressive alteration or destruction of a site owing to the repetitive nature of one or more impacts.

Rate of Change

The rate at which an impact will effectively alter the integrity or physical condition of a heritage site. Although an important level-of-effect indicator, it is often difficult to estimate. Rate of change is normally assessed during or following project construction.

Appendix H - EMPR

Attached below.



Envirokey Management Services cc

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT
FOR THE PROPOSED POULTRY FARM ON ERF 255 OF WALKERS
FRUIT FARM AH (WALKERVILLE), MIDVAAL

PROJECT REF. NO.: GAUT 002/12-13/E0164

Submitted to the Gauteng Department of Agriculture and Rural Development

January 2013

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This report was compiled by Moses Mathebula from Envirokey Management Services cc. Documents and reports employed in the compilation of this report are referenced in the text or as footnotes.

Executive Summary

This Draft Environmental Management Programme Report (EMPR) provides a link between the impacts predicted and the mitigation measures specified within the Basic Assessment Report (BAR), and the activities of the project, by highlighting the key environmental issues and identifying appropriate mechanisms to deal with these issues (i.e. describing the methods and procedures that will be implemented to ensure that all the potential impacts resulting from the activities of the project are managed and/or mitigated where necessary).

A brief description of the activities of the project along with a summary of the impacts associated with the activity is provided. This document, furthermore, describes the objectives, management actions and implementation schedule for the mitigation of the identified potential impacts. The document also identifies the persons responsible for the various management actions.

The EMPR is a flexible document and should be amended accordingly once authorization has been obtained to ensure that all the conditions stipulated in the Environmental Authorisation are included within the EMPR and can be integrated into the management plan.

Compliance monitoring is required to ensure the implementation of the mitigation and management measures specified within this EMPR, as well as allowing for the early detection of environmental impacts and thus allowing for timeous mitigation or remedial action to be implemented.

Any additional issues and concerns raised during the public participation process will be taken into consideration and will be incorporated within this EMPR where appropriate.

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List of Abbreviations & Symbols

BAR	Basic Assessment Report
DEAT	Department of Environmental Affairs and Tourism
DWA	Department of Water Affairs
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPR	Environmental Management Programme Report
GDARD	Gauteng Department of Agriculture and Rural Development
HIA	Heritage Impact Assessment
IAIA	International Association of Impact Assessors
PPE	Personal Protection Equipment
SAHRA	South African Heritage Resources Agency

1. Introduction

An Environmental Management Programme Report (EMPR) is a tool that has developed to demonstrate that potential project impacts can be monitored and managed. The EMPR can provide assurance that the project proponent has made suitable provisions for the required management and mitigation measures of potential impacts associated with the proposed development (DEAT, 2004). The EMP Report provides a link between the impacts predicted and the mitigation measures specified within the Basic Assessment Report (BAR), and the activities of the project, by describing the methods and procedures that will be implemented to ensure that all the potential impacts resulting from the activities project are managed and/or mitigated where necessary.

The Department of Environmental Affairs defines an EMPR as follows:

“An EMP is an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of the construction and operation, and decommissioning of a project are prevented; and that the positive benefits of the project are enhanced” (DEAT, 2004).

This document will include environmental objectives and targets which the project proponent needs to achieve in order to reduce or eliminate negative impacts; as well as to enhance potential positive impacts.

An EMPR document adopts a holistic approach and can be applied to the entire project life cycle, providing management measures for all phases of the project, from construction and operation phases to the potential decommissioning of the project.

This EMP Report will outline the **environmental impacts**, the **mitigation measures**, **roles and responsibilities**, as well as the estimated **timescales** for the implementation of the stipulated management measures. This EMPR should be used in the spirit of continual improvement, to assist in promoting best practice in environmental management in a manner that is practical, efficient and cost-effective.

1.1 Objectives of the EMPR

The objectives of this EMPR document are to:

- Identify the possible environmental impacts of the activity;
- Develop measures to minimize, mitigate and manage these impacts;
- Ensure legal compliance (compliance with regulatory authority stipulations and guidelines);
- Ensure sufficient allocation of resources on the project budget so that the scale of EMPR-related activities is consistent with the significance of project impacts; and
- Facilitate the prevention of environmental degradation.

In order for the EMPR document to be effective, it is essential that the document form part of the developer's routine daily operations. Commitment from all levels of management and the workforce is an important element for the success of this EMPR. It is recommended that the environmental

requirements outlined in this document are integrated into the management plans for maximum effectiveness.

1.2 Legal Framework and Components of the EMPR

The requirements in terms of the contents of an EMPR are outlined in Section 33 of EIA Regulations 543 (2010). In order to comply with this legislation, an Environmental Management Programme Report should include the following components:

- i. Summary of potential negative environmental impacts for which mitigation is required.
- ii. Summary of potential positive environmental impacts which can be enhanced through the implementation of appropriate management measures.
- iii. Description of feasible and cost-effective mitigation measures to reduce significant environmental impacts to acceptable and legal levels.
- iv. Description of a monitoring programme to ensure that the required mitigation measures are implemented.
- v. Identify key role players and define responsibilities for the identified monitoring and mitigation actions.
- vi. Implementation schedule and reporting procedures.
- vii. Statement of commitment from the Project Proponent regarding their commitment to implementing the management actions.

The EMPR is a flexible document and should be amended accordingly once licensing has been obtained to ensure that all the conditions stipulated in the Waste Management License are included within the EMPR and can be integrated into the management plan.

1.3 Compliance Monitoring

Effective implementation of the management and mitigation measures is key to obtaining the environmental goals and targets outlined in this EMPR. For this reason, compliance monitoring is vital to ensure that the stipulated environmental requirements described in this EMPR are implemented on site. In addition, compliance monitoring allows for ongoing impacts to be tracked so that the effectiveness of the mitigation can be measured. Environmental monitoring also allows for the early detection of environmental impacts and allows for timeous intervention or remedial action to be implemented accordingly.

Compliance monitoring should incorporate regular audits to ensure that procedures are appropriate and that environmental objectives and targets are being achieved. Regular environmental audits will assist in identifying existing and/or potential problems affecting the environment, and can assist to determine what actions are required to comply with legal and internal requirements.

1.4 Details of the Applicant and Landowner

The applicant and registered landowner, Estman Properties cc, have applied for environmental authorisation for the activity on behalf of proposed poultry farm. Contact details for the applicant and landowner (one and the same entity) are provided in Table 1 below.

Table 1: Contact details for the applicant and landowner, Wales Holdings (Pty) Ltd.

Name of Applicant:	Ms A.A.Naicker
Postal Address:	P.O. Box 11745, Vorna Valley, MIDRAND, 1686
Contact Person:	Ann Naicker
Contact details:	(t) 072 650 1177 / (e) ann.naicker@vodacom.co.za

1.5. Details of the EAP

Envirokey Management Services cc is the independent environmental consultancy appointed to undertake the Environmental Authorisation and Basic Assessment Process for the temporary storage of waste for the proposed poultry farm on Erf 255 of the Walkers Fruit Farm, Walkerville. The contact details and experience of the Environmental Assessment Practitioner (EAP) are provided in Table 2 below:

Table 2: Contact details of EAP.

Name of EAP:	Moses Mathebula
Company:	Envirokey Management Services cc
Qualifications:	BA Honours in Geography
Associations:	International Association for Impact Assessments (IAIA)
Postal Address:	PO Box 11101, Vorna Valley, Midrand, 1686
Contact number:	011 468 1440
Contact email:	moses@envirokey.co.za

Moses Mathebula is an environmental consultant working for Envirokey Management Services cc and has undertaken the Environmental Authorisation and related Basic Assessment Process for the activities of the proposed poultry farm. Mr Mathebula has a one year working experience in the field of environmental consulting and is a member of the International Association for Impact Assessments (IAIA). Mr Mathebula has an BA Honours (Geography) from the University of Limpopo. Moses Mathebula is working under the supervision of an experienced EAP, Ms Sharon Meyer. Ms Meyer has 12 years of experience and affiliations to IAIA. Ms Meyer has a BSc Honours (Geography & Environmental Management) and an MSc (Zoology) and is registered as a professional natural scientist with the South African Council for Natural Scientific Professionals, (*Pr. Sci. Nat.* 400293/05).

2. Overview of the activity

2.1. Property Description

The proposed poultry farm activity will be located on Erf 255 of the Walkers Fruit Farm AH in Walkersville Gauteng. The property falls within the Midvaal Local Municipality administrative area. A map illustrating the locality of the site is provided in Figure 1. The entire extent of the property is approximately 10 hectares. The site is located in a Conservancy area and currently zoned as agricultural. Surrounding land uses include mostly agricultural smallholdings and low- to medium-density residential. The land uses on these properties vary from vacant to rural residential uses with some light industrial activities. The underlying rock around the area is quartzite and less likely to be hazardous with respect to the existing foundry operations.

2.2. Activity Description

The Environmental Authorisation application that has been submitted is for the proposed development of a Poultry Farm to be situated on Erf 255 of the Walkers Fruit farm AH in Walkersville. The construction of facilities and infrastructure for the concentration of more than 1 000 poultry per facility situated outside an urban area, including chicks younger than 20 days, construction of a hatchery or agri-industrial infrastructure outside industrial complexes where the development footprint covers an area of 2 000 square metres or more, and the transformation of undeveloped, vacant and derelict land to residential, retail, commercial, industrial, or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectares but less than 20 hectares requires environmental authorisation in terms of the National Environmental management Act (Act No. 107 of 1998) and the NEMA Regulations (Reg. 544).

The development activity proposed is a Poultry Farm and a residential unit on a 10ha land at ERF 255 of the Walkersville agricultural area near Vereeniging. The land for the proposed development is currently vacant land and will be developed into a Poultry Farm with a residential unit to house a family. The poultry facility will initially house 120 000 chickens per cycle and will gradually be built up to have the capacity to handle 360 000 chickens per cycle (six-week per cycle). The chickens will be supplied to a contractor who will be contracted to the activity.

Poultry Farming:

Six coops with all the amenities conducive to raising chickens will be built on the property for poultry farming. The whole house (coop) is heated and brooder rings are placed around each brooder (heating) unit. These rings create a microclimate relative to the rest of the room to prevent drafts and keep the birds near each other and near the feed and water. The nipple or cup waterers in each pen will be fully functional and supplemental jug waterers in the brooder rings will be kept filled.

Acquiring Stock:

The proposed Poultry Farm will acquire its stock by buying chicks. Buying chicks is more economic and safe. The proponent will make sure that the chicks have hatched from eggs laid by clean stock (with no diseases).

When the birds arrive at the farm, they will be placed into the rings and introduced to the waterers and feed. Feed will be placed in the feeders and on paper placed on the floor of the pen to encourage young birds to eat. The broilers are brooded in a portion of the house until a certain age before being given access to the entire barn. These facilities or houses generally have litter floors.

Selecting the Right Breed:

The proposed Poultry Farm will be raising chickens for meat production. The most preferable breed for the development is Ross and this type of breed matures in just 6 weeks.

Housing:

Six chicken coops will be used to house the chickens. Sizable coops (120m X 15m) will be enough to accommodate the birds and provide optimum conditions for growth. The six coops will be enough to house the chickens and will also cater for their needs for adequate space to exercise and rest. The coops will also be fully automated (computerized) to protect the chickens from wind, rain and other extreme environmental conditions. A fence will be installed to protect the entire property.

Temperature, Environment and Cleanliness:

The temperatures of the coops will be automated (refer to housing above). The coops will be cleaned regularly so that the chickens do not catch any diseases due to poor hygiene.

Food and Vaccinations:

Food and water will be placed throughout the coops in feeders and waterers. Birds' feed will be supplied and regulated by the contractor. Troughs will be built to avoid feed wastage and automatic fountains for providing freshwater at all times may be considered. A dedicated Vet will be assigned for vaccination purposes on site.

Lack of immunity can be induced by poor nutrition, overcrowding and dirty environmental conditions. Good nutrition and vaccination of the stocks will be used to counter this problem. Maintaining hygiene in the coops will also keep diseases away.

Residential unit:

A standard home will be built on the property to house the family.

Services:

The proposed activity does not require new expansion in terms of infrastructure to be installed as most of the services exist in the area. There is already an existing network of services provided by the local authority in the vicinity of the property where this proposed activity will take place. Access roads to the property are available and serviced by the Midvaal Local Municipality.

Water – There is an existing borehole on the property with the capacity to pump 5 000 litres of water per hour. The proposed activity requires 25 000 litres of water per day for the poultry farm. This water will be sourced from the existing borehole available on the property. A Water Use Licence (WUL) application process has been initiated which runs in parallel to the Basic Assessment application. The Midvaal Local Municipality will provide water for household consumption.

Electricity – Eskom will provide electricity for household and commercial (farm related) consumption.

Sewerage services – The Midvaal Local Municipality will be approached to connect the household and farm sewerage facilities to the existing sewer system in the Walkersville area.

3. Summary of the impacts associated with the activity

An impact assessment was undertaken, the results of which are presented in the Basic Assessment Report compiled as part of the application for Waste Management License approval and/or authorisation process. The potential impacts of the existing activities were assessed on the following environmental aspects: habitat and biodiversity; fauna; flora; noise disturbance; water; soil; air; property values; surface water management; loss of land for farming; traffic; safety; hydrocarbon spills; services; socio-economic factors; and visual impacts; among others.

Generally, the identified negative impacts were rated as being of low to moderate significance before the implementation of mitigation measures. No potential impacts of high significance were identified. Negative impacts are associated with the potential air pollution, noise disturbance, visual impact and potential water pollution. In addition, some temporary noise disturbance may be generated during the construction phase. The impact assessment also identified several positive impacts which can be enhanced if managed properly, such as socio-economic impact and the climate. Measures are provided within this EMPR to manage or mitigate the identified potential impacts. After the implementation of the proposed management and mitigation measures all the potential negative impacts were rated as being of very low to low significance.

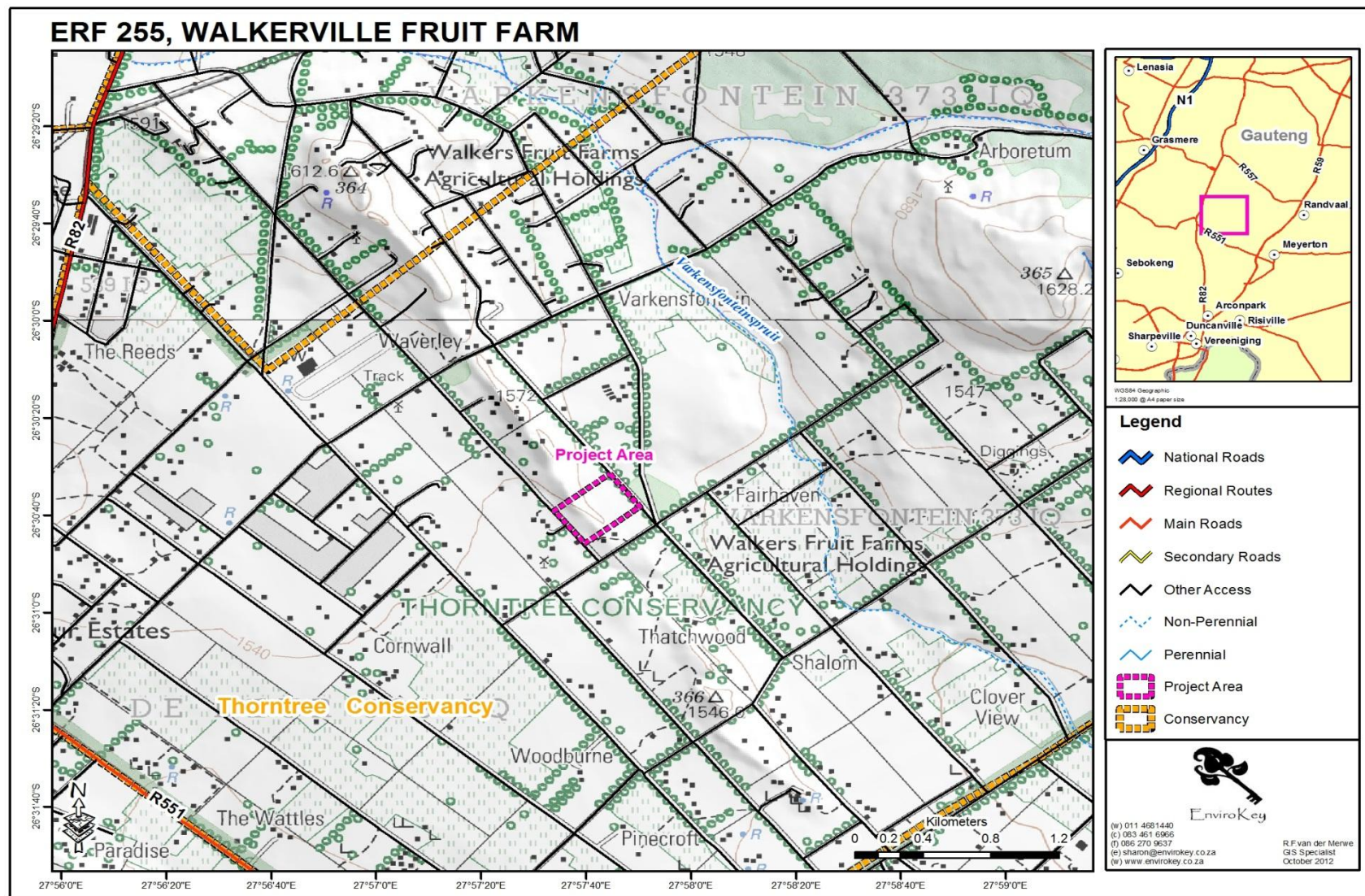


Figure 1: Map illustrating the locality of the foundry activity for Viking Foundry (Source: Envirocam, 2012).

4. Management Actions

The Environmental Management Programme presents management actions that need to be implemented in order to mitigate the negative impacts and enhance the benefits (positive impacts) of the project. Associated responsibilities, monitoring criteria and timeframes are also specified.

Management actions are described as actions that are feasible, practical and cost effective, and need to be implemented in order to achieve the objectives of the EMPR. These actions are based on the mitigation and enhancement actions identified in the BAR, together with additional recommendations identified in the EMPR. The objectives of the management actions are aimed at eliminating or reducing the adverse impacts. Means in which this can be accomplished are listed below:

- **Avoidance:** Avoiding projects or activities that could result in adverse impacts; avoiding certain types of resources or areas considered to be environmentally sensitive. This approach is most effective when applied in the earliest stages of project planning.
- **Prevention:** Measures aimed at preventing the occurrence of negative environmental impacts and/or preventing such an occurrence having harmful environmental and social impacts.
- **Preservation:** Preventing any future actions that might adversely affect an environmental resource.
- **Minimisation:** Limiting or reducing the degree, extent, magnitude or duration of adverse impacts. This can be achieved by scaling down, relocating, or redesigning elements of a project.
- **Rehabilitation:** Repairing or enhancing affected resources, such as natural habitats or water sources, particularly when previous activity has resulted in significant resource degradation.
- **Restoration:** Restoring affected resources to an earlier (and possibly more stable and productive) state, typically a 'pristine' condition.
- **Compensation:** Creation, enhancement, or protection of the same type of resource at another suitable and acceptable location, compensating for lost resources. It should be noted that compensation may be a suitable mitigation measure for certain impacts of certain projects, but is often not a sustainable measure to implement.

5. Implementation of the EMPR

The implementation of the management and mitigation measures stipulated in the EMPR must be monitored. Environmental monitoring should be scheduled and conducted by competent persons (the Environmental Control Officer) and should be properly recorded. The monitoring programme should ensure that environmental objectives and targets are being met and that the stipulated management and mitigation measures in the EMPR are being implemented.

The suitably qualified Environmental Control Officer (ECO) will conduct regular site visits to ensure the successful implementation of the EMPR. The ECO will, therefore, need to:

- Know the contents and implications of the EMPR and monitor its implementation;
- Act as a guide, advisor and consultant to the contractor and client on environmental issues during the construction, operation, decommissioning and rehabilitation of the site (to be achieved by continuous auditing of the project and identification of problem areas and provisioning of action plans to avoid costly delays and/or environmental damage);



- Ensure that a line of communication exists for reporting incidents and rapidly resolving any problems that may arise; and
- Update the EMPR as necessary and inform the relevant parties of the changes.

In addition, a Record of Environmental Incidents (spills, impacts, legal transgressions, etc.) must be maintained along with records of corrective and preventative actions that were taken. A Public Complaints Register must also be maintained in which all complaints and actions taken are recorded.

The identified mitigation and management measures for the construction, operation and decommissioning of the proposed poultry farm project to be located on Erf 255 of Walkers Fruit Farm in Walkersville, Gauteng are provided below.

5.1. Environmental Management Programme – Construction Phase

Table 3: EMPR for the construction phase of the proposed activities.

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
CONSTRUCTION PHASE – PRE-INITIATION					
1.	Meeting to discuss EMPR.	A meeting will be held with the client to discuss and highlight the requirements of the EMPR for the construction phase of the proposed solar energy facility.	Client and ECO	N/A	Before submission of the Draft EMPR to the Competent Authority
2.	Compliance with conditions set out in this EMPR.	This EMPR document, once approved by the Competent Authority, is a legally binding document.	Client/ Contractor/ Site Manager and ECO	N/A	Once off – prior to the initiation of the construction activities.
		The applicant must sign the agreement included in the EMPR (Section 8) indicating that they are willing and able to conform to the environmental management conditions set out in this EMPR.			
		All persons employed by the Contractor or his Sub-Contractors shall abide by the requirements of this EMPR. The responsibility of enforcing this EMPR rests with the Client and Contractor.	Client/ Contractor		
3.	Update Draft EMPR with conditions stipulated in the Environmental Authorisation.	Include stipulations/ conditions of the Environmental Authorisation and Record of Decision in the Final EMPR.	ECO	N/A	Once off – prior to the signing of the agreement.
4.	Maintain community relations.	Open liaison channels should be identified and developed to ensure that all queries and complaints from affected stakeholders may be addressed with the shortest possible delay. A phone number and e-mail address should be provided for this purpose and should be made available to the ECO.	Applicant/ Site Manager	N/A	Before the initiation of construction activities
		A “Complaints Register” shall be kept on site. The register shall contain all the contact details of the person who made the complaint, and information regarding the complaint itself. The Register should also include a description of the management actions implemented to address	Contractor		
				ECO will check complaints register on a regular basis. Subsequent ECO visits will assess the actions taken to	To be implemented before initiation of the construction activities and to be maintained throughout completion of activities

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		complaints or queries. An example is provided in Table 9 in Appendix B.		address any complaints.	
5.	Implement site division, demarcation and “no-go” areas so as to minimise the potential impact on the receiving environment.	Construction areas should be identified and demarcated prior to construction activities being undertaken. Storage of the required machinery or equipment (temporary storage and lay down area) must be identified and fenced off.	Site Manager/ Contractor and ECO	ECO to be consulted for site division and present at site demarcation.	Before implementation of construction activities.
		The boundaries of the proposed working areas and site are to be indicated on a map. All these areas must be pegged prior to the initiation of construction activities.	Site Manager/ Contractor and ECO	ECO to be present for pegging/ demarcation of site	Before implementation of construction activities.
		“No-go” areas shall be indicated on a map and be fenced off by means of pegs, danger tape or plastic fencing.	Site Manager/ Contractor and ECO	ECO to be present for pegging/ demarcation of “no-go” areas.	Before implementation of construction activities.
		All construction activities, materials, equipment and personnel shall be confined to within the specified work areas.	Site Manager/ Contractor	ECO to monitor during site visits.	Ongoing with weekly inspections
		Any excavations or trenching should only remain open for the minimum period of time required and during this time the excavations or trenches must be clearly demarcated so as to prevent the accidental ingress of people, animals or vehicles.			
CONSTRUCTION PHASE – GENERAL CONSIDERATIONS					
6.	Promote safe handling, use and storage of hazardous materials.	If any potentially hazardous chemical substances are to be used during the construction period, then they must be stored in secondary containers to avoid potential leaks and spills.	Site Manager/ Contractor	To be monitored during scheduled site inspections	If and when any hazardous chemical substances are present on site.
		The relevant Material Safety Data Sheets (MSDS) must be available on site.	Site Manager/ Contractor	To be monitored during scheduled site inspections	Whenever hazardous chemical materials on site.
		Procedures detailed in the MSD Sheets shall be followed in the event of an emergency situation.			In the event of emergency situation

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		Any potentially hazardous substances stored on site require a Method Statement detailing the substances to be used, together with the storage, handling and disposal procedures of these materials.			Ongoing
7.	Ensure safe handling, use and storage of fuel and oil (for machinery or equipment).	In the event that fuel will be stored on site, a designated re-fuelling area must be identified. The surface under the temporary refuelling area must be protected against pollution to the reasonable satisfaction of the ECO prior to any refuelling activities. If refuelling takes place on site, it should take place on an impervious and bunded surface.	Site Manager/ Contractor and ECO	To be monitored during scheduled site inspections	Prior to initiation of construction activities.
	Ensure safe handling, use and storage of fuel and oil (for machinery or equipment) continued.	Ensure that there is always a supply of absorbent material (not saw dust) readily available to absorb/breakdown and where possible is designed to encapsulate minor hydrocarbon spillage.	Site Manager/ Contractor	To be monitored during scheduled site inspections	Ongoing
		Symbolic safety signs depicting “no smoking”, “no naked lights”, and “danger” conforming to the requirements of SABS 1186 are to be prominently displayed in and around the fuel storage area.			
		There shall be adequate fire-fighting equipment at the fuel storage and dispensing area or areas.	Site Manager/ Contractor	To be monitored during scheduled site inspections	Ongoing
		Fuel shall be kept under lock and key at all times.			
		Adequate precautions shall be provided to prevent spillage during the dispensing of fuel or oil.			
		Only empty and externally clean tanks may be stored on the bare ground. All empty and externally dirty tanks shall be stored on a protected surface.			
8.	Maintain sanitary ablution facilities.	Temporary sanitation facilities (e.g. chemical toilets) are to be provided for use by employees on the site for the duration of the construction activities. Toilet facilities supplied shall occur at a maximum ratio of 1 toilet per 20 workers (preferred 1:15).	Site Manager / Contractor	To be monitored during scheduled site inspections	Implemented before initiation of construction activities.
		All temporary/ portable toilets shall be secured to the ground to prevent them from toppling due to wind or			

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		any other cause.			
	Maintain sanitary ablution facilities (continued).	Ablution facilities should be screened from general view. These facilities shall be maintained in a hygienic state and serviced regularly. Toilet paper shall be provided. Discharge of waste from toilets into the environment and burial of waste is strictly prohibited.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
9.	Designate an eating area.	An eating area for employees will be designated and shall be clearly demarcated. Sufficient bins with lids shall be provided in the eating area. Any cooking on site shall be done on well-maintained gas cookers with fire extinguishers present. Open fires are not allowed on site.	Site Manager / Contractor	To be monitored during scheduled site inspections	Eating area to be designated at the initiation of the construction activities and to be implemented on an ongoing basis.
10.	Promote effective solid waste management.	The site shall be kept neat and clean at all times. Littering is prohibited. No on-site burying or dumping of any waste materials, vegetation, litter or refuse shall occur. Bins should not be allowed to become overfull and shall be emptied regularly, at least once a week. All solid waste generated during construction, other than natural materials such as soil and rock, shall be disposed of off-site at an approved landfill site (disposal certificates should be kept on site). Burning or burying of waste is not allowed. No dumping of foreign material on the site and into the drainage lines is allowed.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
11.	Reduce the potential for contamination of soils and surface water bodies. Promote environmental best practice when undertaking cement or concrete batching (applicable should Alternative 1 be approved).	Cement mixing and batching is to be undertaken on a lined, impermeable surface. No cement mixing is to occur on bare soil. The batching area should be bunded to avoid contamination of surface water runoff. No mixing of cement should be allowed outside the designated areas.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
	Reduce the potential for contamination of soils and surface water bodies. Promote environmental best practice when undertaking cement or concrete batching (applicable should Alternative 1 be approved).	The cement / concrete batching works must be kept neat and clean at all times.			
		All runoff from the batching area must be strictly controlled and cement-contaminated water must be collected, stored and disposed of at an approved site.			
		Unused cement bags are to be stored in weather-proof containers to prevent windblown cement dust and water contamination. Used bags must be disposed of on a regular basis via the solid waste management system, and shall not be used for any other purpose.			
		Cleaning of equipment and flushing of mixers must not result in pollution of the surrounding environment. Care must be taken to collect contaminated wash water from cleaning activities and dispose of it in an approved manner. All visible remains of excess concrete must be physically removed on completion and disposed of. Washing off the remains into the ground is not acceptable.			
		Cement spills must be cleaned immediately and the contaminated soil removed from the site and disposed of at a registered disposal facility.			
12.	Minimise potential dust generation.	The contractor shall take all reasonable measures to minimize the generation of dust as a result of the construction activities.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
		Where possible, soil stockpiles shall be located in sheltered areas where they are not exposed to the erosive effects of the wind. Where erosion of stockpiles becomes a problem, erosion control measures shall be implemented.			
		No soil stockpiles should be present on site at the completion of the construction activities.		To be inspected at completion of project	Before closure certificate can be issued

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
	Minimise potential dust generation (cont.).	Appropriate dust suppression measures shall be used when dust generation is unavoidable. Such measures shall include the use of temporary stabilizing measures (e.g. straw, brush packs, chipping, etc).	Site Manager / Contractor	To be monitored during scheduled site inspections	As and when required
13.	Minimise potential noise disturbance.	The Contractor shall limit noise levels (e.g. install and maintain standard sound retarding devices on machinery). Construction activities should be confined to the hours 08:00 to 17:00 Mondays to Fridays, and between 08:00 and 13:00 on Saturdays. No construction activities should be permitted on Sundays or public holidays. Should the contractor need to work outside of normal working hours, the surrounding communities shall be informed prior to the work taking place. Any noise complaints received should be recorded in the Complaints Register.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
14.	Rehabilitate access routes.	On the site, the contractor shall control the movement of all vehicles so that they remain on the designated routes. Access to the work area shall utilize existing tracks or roads where possible. All temporary access routes built for the construction phase shall be rehabilitated at the end of the contract.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
15.	Promote fire control.	The contractor shall take all reasonable and active steps to avoid increasing the risk of fire through their activities on site. The Contractor shall appoint a Fire Officer who shall be responsible for ensuring immediate and appropriate actions in the event of a fire.	Site Manager / Contractor / Fire Officer	To be monitored during scheduled site inspections	Ongoing
		Basic fire-fighting equipment must be available on site at all times.	Site Manager / Contractor / Fire Officer	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
16.	Prevent the loss of topsoil	At the beginning of the construction phase, topsoil removed for vegetation clearance must be stripped to a minimum depth of 150mm, or that soil which contains organic material. Stockpiled topsoil must not be compacted and should be replaced as the final soil layer. Stockpiled soil must be protected by erosion control berms if exposed for a period of greater than 14 days during the wet season.	Contractor / Site Manager	To be monitored during scheduled site inspections.	Ongoing
17.	Implement erosion and sedimentation control	Disturbed areas should be kept to a minimum and standard erosion control measures must be implemented. Susceptible soil surfaces must be protected by planting indigenous grasses that will bind the soil surface. Any runnels or erosion channels present on site or developed during the construction and vegetation re-establishment period shall be backfilled and compacted, and the areas restored to a proper condition.	Contractor/ Site Manager	To be monitored during scheduled site inspections	Continuously throughout the lifespan of the activity.
18.	Protect "No-Go" Areas	The contractor shall ensure that all "no-go" areas are demarcated accordingly. No unauthorized entry, stockpiling, dumping or storage of equipment or materials shall be allowed within the demarcated "no-go" areas. Demarcation shall remain in place for the duration of the construction works on site. If damaged, demarcation shall be repaired or replaced immediately.	Applicant / Site Manager / Contractor	To be monitored during scheduled site inspections	Demarcation of no-go areas to take place before commencement of construction activities.
19.	Protect fauna and flora	Except to the extent necessary for the carrying out of the construction works, flora or fauna shall not be removed, damaged or disturbed.	Applicant / Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		Construction must not continue before the medicinal plants identified on site are rescued.			
		Trapping, poisoning and/or shooting of animals is strictly forbidden.			
		Excavations left open during construction should be checked daily for animals that may have fallen in.			
20.	Ensure safety and security of the site, employees and the surrounding public.	Notification signs must be posted around the site warning residents and visitors about the hazards around the construction site.	Applicant / Site Manager / Contractor	To be monitored daily by site manager and during scheduled site inspections by ECO	Ongoing throughout construction phase
		Strict site control and the control of construction workers must be kept by the project managers during the entire construction phase.			
		No on-site accommodation must be available to construction workers, besides the security watchmen.			
		Clear sign boards should be erected at the entrance to the site to indicate that a construction site is being entered and that certain safety precautions should be followed.			
21.	Protection of potential heritage sites.	If remains or artefacts are discovered on site during the construction works, work shall cease immediately and the contractor shall notify the ECO and contact the relevant authority (i.e. SAHRA). The following recommendations (provided in the HIA Report) should be adhered to. All operators of excavation equipment should be made aware of the possibility of the occurrence of sub-surface heritage features and that the following procedures should then be followed: • All construction in the immediate vicinity (50m radius) should cease; • The heritage practitioner should be informed as soon as possible; • In the event of obvious human remains the SAPS should be notified;	Applicant / Site Manager / ECO in consultation with Heritage Assessor	To be monitored during scheduled site inspections, possibly once a week.	Continuously throughout the lifespan of the proposed activities.

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		- Mitigation measures (such as refilling) should not be attempted; - The area in a 50m radius should be cordoned off with hazard tape; - Public access should be limited; - The area should be placed under guard; and - No media statements should be released until such time as the heritage practitioner has had sufficient time to analyse the finds.			
22.	General Considerations	Free surface runoff of rainwater must be ensured. Rainwater should not be allowed to pool on the site. Personal Protective Equipment (PPE) must be provided to all employees to prevent personal injury during the implementation of the proposed construction activities. This includes equipment such as protective eyewear, masks and protective clothing where necessary.	Applicant/ Contractor/ Site Manager	To be monitored during scheduled site inspections	Continuously throughout the lifespan of the proposed activities.
CONSTRUCTION PHASE – REHABILITATION					
23.	Rehabilitation must be undertaken once construction activities are complete.	When all major construction activities are completed, the site must be inspected to determine appropriate site-specific rehabilitation measures.	Contractor / Site Manager / ECO	To be monitored during scheduled site inspections during rehabilitation phase.	After completion of construction activities and before commencement of rehabilitation activities.
24.	Rehabilitate polluted soils	Areas of bare soil should be inspected for hydrocarbon spills. Should the soils show any signs of hydrocarbon spills, the site will be treated and the must be soil removed.	Site Manager / Contractor	To be monitored during scheduled site inspections, possibly once a week.	Continuously throughout the lifespan of the proposed activities.
25.	Preparation of soil for re-vegetation	Bare patches of soil resulting from construction activities may require disking to loosen the soil surface in preparation for seeding.	Site Manager / Contractor	To be monitored during scheduled site inspections, possibly once a week.	To be undertaken during late October, early November
26.	Introduction of indigenous vegetation	The spreading of seed should be done manually after disking is complete. A selection of indigenous seeds as identified in Appendix A can be used to spread throughout the identified rehabilitation areas.	Site Manager / Contractor	To be monitored during scheduled site inspections, possibly once a week.	Early November (at the start of the rain season)



	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
	Introduction of indigenous vegetation (continued)	Organic compost can be spread on the reseeded surfaces to provide nutrients for optimal growth of seeds.	Site Manager / Contractor		Early November (at the start of the rain season)
		No equipment, vehicles or unauthorized personnel shall be allowed onto areas that have been vegetated.	Site Manager / Contractor	To be monitored during scheduled site inspections.	Ongoing
27.	Eradication of alien and invasive vegetation	An effort should be made to manage and remove identified alien and invasive species at the site.	Site Manager / Contractor	To be monitored during scheduled site inspections, possibly once a week.	Immediate eradication and ongoing monitoring
		Clearing of alien and invasive vegetation shall take place across the entire study site.			

5.2. Environmental Management Programme – Operational Phase

Table 4: EMPR for the operational phase of the proposed poultry farm.

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
OPERATIONAL PHASE – GENERAL ADMINISTRATION					
28.	Maintain community relations.	Continue to maintain open liaison channels with affected stakeholders as prescribed in Objective 4 under the Construction Phase EMPR.	Applicant / Site Manager	N/A	Ongoing – for the life of the operation.
29.	Establish a rehabilitation fund.	The site manager and client must establish a rehabilitation fund, indicating annual contributions to the fund. The rehabilitation fund will need to support the following activities: • Concurrent rehabilitation activities; • Decommissioning and final rehabilitation activities; and • Monitoring and Maintenance activities.	Client / Site Manager	ECO must monitor rehabilitation activities to ensure that rehabilitation commitments are being met.	Rehabilitation fund must be established immediately and reviewed annually.
OPERATIONAL PHASE – EMERGENCY AND SAFETY PROCEDURES					
30.	Ensure that all employees are familiar with the stipulated emergency procedures - FIRE .	The site manager must advise the relevant authority of a fire as soon as one starts and must not wait until he can no longer control it. The site manager must ensure that his employees are aware of the procedure to follow in event of a fire.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
31.	Ensure that all employees are familiar with the stipulated emergency procedures – ACCIDENTAL LEAKS AND SPILLAGES .	The site manager must ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the ECO and the relevant local authorities.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
	Ensure that all employees are familiar with the stipulated emergency procedures – ACCIDENTAL LEAKS AND SPILLAGES (continued).	The site manager must ensure that the necessary materials and equipment for dealing with spills and leaks is available on site at all times. Treatment and remediation of the spill area shall be undertaken to the satisfaction of the ECO. In the event of a hydrocarbon spill, the source of the spillage must be isolated and the spillage contained. The area shall be cordoned off and secured.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
33.	Enforce safety procedures.	Telephone numbers of emergency services, including the local fire-fighting service, must be posted conspicuously in the site manager's office near the telephone. No unauthorized firearms are permitted on site. Personal Protective Equipment (PPE) must be provided to all employees to prevent personal injury during the undertaking of activities. This includes equipment such as protective eyewear, masks and protective clothing where necessary.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
OPERATIONAL PHASE – GENERAL CONSIDERATIONS					
34.	Maintain sanitary ablution facilities.	Sanitation facilities (whether waterborne or chemical toilets) are to be provided for use by employees on the site for the duration of the operational and decommissioning activities. Toilet facilities supplied shall occur at a maximum ratio of 1 toilet per 15 workers (preferred ratio is 1:10).	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
	Maintain ablution facilities (cont.).	These facilities must be maintained in a hygienic state and serviced regularly. Toilet paper must be provided.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
	Maintain ablution facilities (cont.).	Discharge of waste from toilets into the environment and burial of waste is strictly prohibited. Washing, whether of the person or of personal effects, and acts of excretion and urination are strictly prohibited other than at the facilities provided.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
35.	Designate an eating area	An eating area for employees will be designated and must be clearly demarcated. Sufficient litter bins must be provided in the eating area. Any cooking on site must be done within the designated eating area on well-maintained gas cookers with fire extinguishers present.	Site Manager / Contractor	To be monitored during scheduled site inspections	Eating area to be designated at the initiation of the activities and identified activities to be implemented on an ongoing basis.
36.	Promote effective solid waste management.	Ensure compliance with applicable local, national and international regulations. The site must be kept neat and clean at all times. Littering is prohibited. No on-site burying or dumping of any waste materials, litter or refuse shall occur. In addition to this, no waste will be used for fills on the site. Domestic waste should be collected by the local service provider (Midvaal Local Municipality). It is the site manager's responsibility to ensure that domestic waste is cleared away. Waste bins must be provided in order for employees to make use of these bins. Bins should not be allowed to become overfull and must be emptied regularly, at least once a week. Waste bins must be managed in such a way that waste is not blown to the surrounding area. Where possible, tight-lids must be provided.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
	Promote effective solid waste management (cont.).	Waste should be stored in a manner that prevents the commingling or contact between incompatible wastes and should allow for inspection between storage containers. Provide adequate ventilation where volatile waste is stored.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		All types of waste generated during operation, must be disposed of off-site at an approved disposal site for such waste. A proof of waste disposal at an approved disposal site must be provided by responsible parties for the collection of waste. Copies of these disposal certificates must be kept on file on site.			
37.	Promote recycling within the solid waste management plan.	Containers for glass, paper, metals and plastics must be provided. Office and designated eating areas are particularly suited to this form of recycling process. Where possible and practical recyclable waste should be sorted according to the following recycling categories: i. Paper/cardboard ii. Plastic iii. Aluminium / Other Metals iv. Organic waste v. Glass	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
	Promote recycling within the solid waste management plan (cont.)	- Evaluate waste production processes and identify potential recyclable materials - Identify and recycle products that can be reintroduced into the activities of the proposed poultry farm on-site - Investigate external markets for recycling by other industrial process operations located in the neighbourhood or region (e.g waste exchange) - Establish recycling objectives and formal tracking of waste generation and recycling rates, and - Provide training and incentives to employees in order to meet objectives.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
	Promote recycling within the solid waste management plan (cont.)	Maximise the reuse and/or recycling of manure within the facility. Various options are available for recycling of manure and include: Investigate the external re-use of manure for composting.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
38.	Promote water conservation techniques as well as energy saving measures.	Rainwater falling on site can be harvested (rain tank) and used to dampen roads for dust control. Maximise the efficiency of the process water recycling in order to minimise the volume of clean water required to undertake the wash process.	Site Manager/ECO	To be monitored during scheduled site visits	Ongoing
		Install water efficient toilets where possible.			
		Use indigenous vegetation for landscaping in order to reduce the amount of water required for irrigating open spaces.			
		Use energy efficient lights for all lights used for non-security purposes. An example is compact fluorescent lights (CFL).			
39.	Minimise potential contamination of water resources.	Potential pollutants of any kind and in any form must be kept, stored and used in such a manner that any escape can be contained and the water table not endangered.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
		Water containing such pollutants as chemicals and fuels must be discharged into a conservancy tank for removal from the site to a licensed disposal facility. This applies particularly to water emanating from runoff from fuel depots/workshops to truck washing areas.			
		Wash down areas must be placed and constructed in such a manner so as to ensure that the surrounding			

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		areas are not polluted. Should contaminated water be released into the environment, specifically into a watercourse, rehabilitation of the contaminated area must be undertaken and monitoring thereof must follow in accordance to the National Water Act (Act 36 of 1998). Divert dirty water (water used to clean broilers and containers) to a septic tank on site and nowhere else. This water must not be allowed to seep into the soil or <i>run towards the non-perennial watercourse further east of the site of the proposed development.</i> Store chicken carcasses in a lined or sealed container prior to the removal and disposal of the carcasses. Do not bury the carcasses on site. Broiler facilities must be lined and bunded to avoid any run-offs of polluted water onto unprotected soil. The site manager must notify the ECO immediately of any pollution incidents on site.			
40.	Minimise potential dust generation.	The site manager must be responsible for the control of dust arising from the operations. The site manager must take all reasonable measures to minimize the generation of dust from the activities of the proposed project and from roads. Where possible, material stockpiles must be located in sheltered areas where they are not exposed to the erosive effects of the wind. Where erosion of stockpiles becomes a problem, erosion control measures must be implemented. This is particularly	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		necessary for manure stockpiles stored temporarily pending removal for composting. Appropriate dust suppression measures must be used when dust generation is unavoidable. Material stockpiles may be dampened with water; however, excessive watering must be avoided to prevent ingress of water into the ground. Alternative dust suppression measures on the stockpiles such as the use of tarps, hessian or other stabilizing measures, etc may also be used. Handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present. This is particularly necessary for spent foundry sand. Transport of chicken manure should ideally take place in covered vehicles to avoid pollution to site and neighbouring areas.			
41.	Minimise the visual impact of the proposed development on surrounding land users.	All site establishment components (as well as equipment) should be positioned in such a manner as to limit visual intrusion on neighbours. Plant indigenous trees at the site for the proposed development screen infrastructure to neighbours. The indigenous trees should extend from the ridge “koppie” on either side of the property towards Meyerton Road. In addition to this, use shade clothe as a visual screen to minimise glare from the reflective materials used for the infrastructure.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
	Minimise the visual impact of the foundry on surrounding land users (cont.).	The site manager must ensure that any lighting installed on the site for his activities does not interfere with road traffic or cause a reasonably avoidable disturbance to the surrounding community or other users of the area. Lighting installed must, as far as practically possible, be energy efficient. Lighting used on site must be turned off when not in use. Maintenance of all infrastructure will contribute to a low visual intrusion to surrounding land users.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
42.	Minimise potential odours (air emissions) from broiler activities.	Ensured that cages are cleaned to avoid foul smell that can bother neighbours. Food stocks should be kept dry when stored and must be in airtight containers. Divert water used to clean structures to a septic tank. Keep chicken carcasses in a lined and sealed container and these containers must be removed from site daily.	Site Manager/ Contractor/ ECO	To be monitored during scheduled site inspections	Ongoing
43.	Minimise potential noise disturbance.	The site manager must limit noise levels (e.g. install and maintain standard sound retarding devices on machinery). Provincial noise regulations must be complied with at all times. Noise must not constitute a nuisance to the neighbourhood during the operational phase of the project. Any noise complaints received must be recorded in the Complaints Register. Should continuous complaints regarding excessive noise be received, it may be necessary to implement a noise monitoring programme.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
44.	Minimise the spread of diseases to neighbouring farms.	Monitor and control diseases on a daily basis. Inform neighbours when serious problems arise at the proposed development and the mitigation measures thereof. In addition to this, the neighbours must inform you of the measures they can apply to minimise losses on their properties. Apply a vigorous disease measure and/or a bio security policy that include: Basic Broiler Vaccination Programme: ○ Day old: Infectious Bronchitis/Newcastle Disease Avinew/Vitapest (Eyedrop or course spray) ○ Day 14: Infectious Bursal Disease Gumboro (Drinking water) ○ Day 16-18: Newcastle Disease Avinew (Drinking water) ○ Day 18: Infectious Bursal Disease Gumboro (Drinking water) ○ Day 28: Newcastle Disease (if birds are kept longer than 42 days) Lasota type (Fine spray, atomist or other)	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
45.	Prevent potential pollution from vehicle workshop / equipment maintenance areas.	Where practical, all maintenance of equipment and vehicles on site must be performed in a designated area. The contractor must ensure that there is no contamination of the soil, vegetation or water sources resulting from the workshop area.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		The designated “workshop” area must have a smooth impermeable floor either constructed of concrete or thick plastic covered with sufficient sand to protect the plastic from damage. The floor must be bunded and sloped towards an oil trap or sump to contain any spillages of substances (e.g. oil). When servicing equipment, drip trays must also be used to collect the waste oil and other lubricants. Drip trays must also be utilised for stationary plant (such as compressors) and for “parked” plant (such as scrapers, loaders, vehicles).			
	Prevent potential pollution from vehicle workshop / equipment maintenance areas (cont).	Drip trays, sumps and bunds must be emptied regularly, especially before a known rain event and after a rain event, and the contents disposed of at a licensed disposal facility. All vehicles and equipment must be kept in good working order and serviced regularly. Leaking equipment must be repaired immediately or removed from the site. All washing of equipment must be undertaken in the designated “workshop” area or maintenance area and these areas must be equipped with suitable impermeable floor and sump/oil trap.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
	Prevent potential pollution from vehicle workshop / equipment maintenance areas (cont).	All runoff from the batching area must be strictly controlled and cement-contaminated water must be collected, stored and disposed of at an approved site. Dagga boards, mixing trays and impermeable sumps shall be used at all mixing and supply points. Contaminated water shall be disposed at a registered waste disposal site.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
	Prevent potential pollution from vehicle workshop / equipment maintenance areas (cont).	Cleaning of equipment and flushing of mixers must not result in pollution of the surrounding environment. Care must be taken to collect contaminated wash water from cleaning activities and dispose of it in an approved manner. All visible remains of excess concrete must be physically removed on completion and disposed of. Washing off the remains into the ground is not acceptable.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
46.	Monitor all activities associated with the management of hazardous and non-hazardous waste.	Maintain a regular inspection of all waste collection and storage areas for evidence of accidental releases and verify that wastes are stored and labelled properly.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
47.	Traffic should be restricted to the designated access roads and haul roads to avoid impact on the surrounding environment.	On the site the manager must control the movement of all vehicles including that of his suppliers so that they remain on designated routes. All public roads must be kept clear of mud and sand. Mud and sand that has been deposited as a result of on-site activities must be cleared regularly.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
48.	Promote effective fire control.	The site manager must take all reasonable and active steps to avoid increasing the risk of fire through their activities on site.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
	Promote effective fire control (cont).	Smoking must not be permitted in those areas where it is a fire hazard. Such areas include the workshop and fuel storage areas and any areas where the vegetation or other material is such as to make liable the rapid spread of an initial flame. In terms of the National Environmental Management: Air Quality Act and Community Fire	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		Safety Bylaw, burning is not permitted as a disposal method. The site manager must appoint a Fire Officer who will be responsible for ensuring immediate and appropriate actions in the event of a fire and shall ensure that employees are aware of the procedure to be followed. The site manager must ensure that there is basic fire-fighting equipment available on site at all times. The fire-fighting equipment must be to the satisfaction of the Local Fire Services. The site manager must take precautions when working with welding and grinding equipment near potential sources of combustion. Such precautions include having a suitable, tested and approved fire extinguisher immediately at hand and the use of welding curtains.			
OPERATIONAL PHASE – MONITORING					
49.	Ensure monitoring of all processes of the activity. (NB: monitoring was dealt with broad in all aspects above).	Maintain regular visual inspection of all facilities of the proposed development for evidence of accidental releases of wastes and verify that wastes are properly labelled and stored. Waste segregation and collection practices should be audited regularly. When significant quantities of hazardous wastes are generated and stored on site: i) Inspect vessels for leaks, drips or other indications of loss ii) Identify cracks, corrosion, or damage to tanks, protective equipment, or floors	Site Manager / Contractor /ECO	To be monitored during site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		iii) Verify that locks, emergency valves, and other safety devices are operational (lubricate if required and employ the practice of keeping locks and safety equipment on standby position when the area is not occupied) iv) Check the operability of emergency systems v) Document results of testing for integrity, emissions, or monitoring stations (air, soil vapour, or groundwater) vi) Document any changes to the storage facility, and any significant changes in the quantity of materials in storage. Track waste generation trends by type and amount of waste generated, preferably by facility departments. Characterize waste at the beginning of generation of a new waste stream, and document the characteristics periodically. Keep manifests or other records that document the amount of waste generated and its destination. Audit of third party treatment and disposal services periodically including re-use and recycling facilities when significant quantities of hazardous wastes are managed by third parties. Whenever possible, audits should include site visits to the treatment storage and disposal location. Also conduct audits at the facilities that will compost organic waste from the proposed development. Monitor groundwater quality in cases of Hazardous Waste on site storage and/or pre-treatment and disposal.			

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
OPERATIONAL PHASE – CONCURRENT REHABILITATION					
50.	Reduce the loss of vegetation footprint (waste, etc).	Prepare a plan of action to process and reduce the footprint (e.g. so that a smaller, more controlled area is used for this waste streams).	Site Manager	ECO to measure progress on a quarterly basis.	Material stockpile footprint to be reworked within 12 to 18 months
	Reduce the material stockpiles footprint (cont.).	The footprint of the removed vegetation and material stockpiles must be rehabilitated, with all traces of the proposed development being removed and indigenous grass being seeded in the area.	Site Manager	ECO to measure progress on a quarterly basis.	Material stockpile footprint to be reworked and rehabilitated within 24 months
OPERATIONAL PHASE – EMERGENCY AND SAFETY PROCEDURES					
51.	Ensure that all employees are familiar with the stipulated emergency procedures - FIRE .	The site manager must advise the relevant authority of a fire as soon as one starts and must not wait until he can no longer control it. The site manager must ensure that his employees are aware of the procedure to follow in event of a fire.	Site Manager / Contractor	To be monitored during site inspections	Ongoing
52.	Ensure that all employees are familiar with the stipulated emergency procedures – ACCIDENTAL LEAKS AND SPILLAGES .	The site manager must ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the ECO and the relevant local authorities. The site manager must ensure that the necessary materials and equipment for dealing with spills and leaks is available on site at all times. Treatment and remediation of the spill area shall be undertaken to the satisfaction of the ECO. In the event of a hydrocarbon spill, the source of the spillage must be isolated and the spillage contained. The area shall be cordoned off and secured. The site manager must ensure that there is always a supply of absorbent material readily available to	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		absorb/breakdown and where possible is designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 litres of hydrocarbon liquid spill. Examples of such products include Spill-sorb, Drizzat Pads, and Enretech Powder and/or Green Stuff Absorbent.			
53.	Enforce safety procedures.	Telephone numbers of emergency services, including the local fire-fighting service, must be posted conspicuously in the site manager's office near the telephone. No unauthorized firearms are permitted on site. The site manager must ensure that access to the site and associated infrastructure and equipment is off-limits to the public at all times during operation. Personal Protective Equipment (PPE) must be provided to all employees to prevent personal injury during the undertaking of activities. This includes equipment such as hard hats, protective eyewear, masks and protective clothing where necessary.	Site Manager / Contractor	To be monitored during scheduled site inspections	Ongoing
54.	Implement stipulated management measures in event of temporary site closure.	In the event of temporary site closure the site manager's safety officers must check the site, ensure that the following conditions pertain and report on compliance with this clause: 1) Fuels/ flammables/ hazardous materials stores a. Fuel stores are as low as practicable; b. There are no leaks; c. The outlet is secured and locked; and d. The bund is empty. 2) Fire extinguishers are serviced and accessible. 3) Emergency and contact numbers are available and	Site Manager / Contractor	To be monitored during scheduled site inspections	In event of temporary site closure

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		displayed. 4) Hazardous fuel stores are secured. 5) Cement and materials stores are secured. 6) Toilets are empty and secured. 7) Refuse bins are empty and secured. 8) Drip trays are empty and secured.			
DECOMMISSIONING PHASE – REHABILITATION					
55.	Implement rehabilitation at the end of the operational life of the proposed development.	Prior to the final vegetation / rehabilitation of the site, the site manager must remove all remnants of building materials, concrete foundations, timber, material stockpiles and other foreign debris from the site. Before replacing topsoil, the site manager must remove all visible weeds from the placement area and from the topsoil. The site manager must not begin planting work until all decommissioning activities in the area to be vegetated have been completed.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing
	Implement rehabilitation at the end of the operational life of the proposed development (cont.).	No equipment, vehicles or unauthorized personnel shall be allowed onto areas that have been vegetated. Establishment will consist of maintaining the surface to the required slopes and levels without erosion or sedimentation, watering, weeding, disease and insect pest control, pruning and any other procedure consistent with good horticultural practice necessary to ensure normal, vigorous and healthy growth of the plant material on site.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Prior to initiation of rehabilitation activities

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		Establishment must commence immediately after planting and to continue until satisfactory cover has been achieved.			
56.	Leveling of the site	Identified areas for rehabilitation are to be levelled and remaining soil stockpiles to be flattened. Ensure that areas that are not evenly sloped are reshaped in order to minimise pooling and erosion.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	During rehabilitation phase During rehabilitation phase
57.	Preparation of soil for re-vegetation	Bare patches of soil will require disking to loosen the soil surface in preparation for seeding. Upon completion of activities, the access road will also be disked for rehabilitation purposes.	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	To be undertaken at the completion of the rehabilitation activities
	Introduction of indigenous vegetation	The spreading of seed will be done manually after disking is complete. A selection of grass seeds as identified in Table 5 of Appendix A are to be spread throughout the identified rehabilitation areas. Moreover, suitable vegetation is provided in Table 6. Compost should be spread on the reseeded surfaces to provide nutrients for optimal growth of seeds. The use of environmentally friendly fertilizers and pesticides/herbicides is recommended during the maintenance of the above areas. In the event that herbicides will be used for the eradication of weeds, staff should be appropriately trained in the application thereof and staff should be provided with the necessary PPE.	Site Manager / Contractor	To be monitored during scheduled site inspections	Early November (at the start of the rain season)
58.	Monitoring and maintenance	The following aspects must be monitored on a regularly: - Integrity of vegetative cover / drainage - Erosion	Site Manager / Contractor/ECO	To be monitored during scheduled site inspections	Ongoing on a monthly basis

	Objectives	Management Actions	Responsible Persons	Monitoring	Implementation schedule
		- Spread of alien and invasive vegetation - Control of fires			
DECOMMISSIONING PHASE – MAINTENANCE AND MONITORING					
59.	Integrity of cover, drainage and erosion control	The rehabilitated areas must be inspected on a regular basis after vegetation has been planted. Areas where vegetation has failed to establish must be identified and replanted with indigenous grass species. Establishment will consist of weeding, disease and insect pest control, pruning and any other procedure consistent with good horticultural practice necessary to ensure normal, vigorous and healthy growth of the plant material on site. Establishment must commence immediately after planting and will continue until satisfactory cover has been achieved. During site inspections, monitoring must take place for any signs of erosion. Should any erosion be observed, the necessary control measures must be implemented to repair the identified areas.	Site Manager / Contractor / ECO	To be monitored during scheduled site inspections	Monthly

8. AGREEMENT TO THE EMP

I, Adolinda Ann Naicker, acting in the capacity of Proponent for the Proposed Poultry Farm development on Erf 255 of the Walkers Fruit Farm AH (Walkerville), have read and understand the contents of the site-specific Environmental Management Plan (EMP) prepared by Envirokey Management Services cc. Further, I am able and shall comply with all legislation pertaining to the nature of the work to be done and all things incidental thereto.

Signed:

_____ (signature)

_____ (date)

I, _____, the Environmental Control Officer for the Proposed Poultry Farm development on Erf 255 of the Walkers Fruit Farm AH (Walkerville) have read and understand the contents of the site-specific Environmental Management Plan (EMP) prepared by Envirokey Management Services cc. Further, I am able and shall comply with the requirements of GDARD as stipulated in letter dated _____ in as far as the implementation of the EMP.

Signed:

_____ (signature)

_____ (date)





Table 3: Incident and Environmental Log

INCIDENT AND ENVIRONMENTAL LOG				
Date	Environmental Condition	Comments (include any possible explanations and possible responsible parties)	Corrective Action Taken (give details and attach documentation as far as possible)	Name & Signature



Table 4: Environmental Complaints Register

Complaints Record Sheet		Date:
Complaints raised by:		
Capacity of complainant:		
Complaint recorded by:		
Complaint		
Proposed remedial action		
ECO:	Date:	
Notes by ECO:		
ECO:	Date:	Site manager:

APPENDIX A

INDIGENOUS VEGETATION

FOR

THE PROPOSED

**Proposed Poultry Farm development on
Erf 255 of the Walkers Fruit Farm AH
(Walkerville)**

December 2012

Indigenous vegetation for landscaping for the proposed Poultry Farm development on Erf 255 of the Walkers Fruit Farm AH (Walkerville)

Few trees occur naturally in the Highveld area. It is best when landscaping a garden to choose adaptable plants able to tolerate the prevailing climate. The types of plants that can be grown will depend on both location and temperature. Over time various trees have adapted to highveld conditions and tolerate both cold and drought. It is recommended that hardy groundcovers are used and lawn is kept to a minimum.

All plants listed are indigenous plants. The advantages of this are that they are hardy, fairly drought resistant plants, which use less water than exotic species. They also attract a far greater diversity of birds and wildlife than exotic species, thus are strongly recommended.

Along with the common name and scientific name of the plant the list also includes where it should be planted.

		Embankments	Shade	Semi-shade	Sun	Stormwater runoff
Trees	Scientific Name					
Wild Olive	<i>Olea europaea subsp. africana</i>	✓			✓	
Karee	<i>Rhus lancea</i>	✓		✓	✓	✓
Firethorn	<i>Rhus pyroides</i>	✓			✓	✓
Buffalo-thorn	<i>Ziziphus mucronata</i>	✓			✓	✓
Bluebush	<i>Diospyros lycoides</i>					
Blue Guarri	<i>Euclea crispa</i>	✓			✓	✓
Common Spike Thorn	<i>Gymnosporia buxifolia</i>	✓			✓	✓
Puzzle Bush	<i>Ehretia rigida</i>	✓	✓	✓	✓	✓
White Stinkwood	<i>Celtis africana</i>	✓		✓	✓	✓
Sweet Thorn	<i>Acacia karoo</i>	✓		✓	✓	✓
Scented Thorn	<i>Acacia nilotica</i>	✓			✓	✓
Ankle Thorn	<i>Acacia robusta</i>	✓			✓	✓

Transvaal Gardenia	<i>Gardenia volkensii</i>	✓	✓	✓	✓	✓
Wild Peach	<i>Kiggelaria africana</i>	✓	✓	✓	✓	✓
Hook Thorn	<i>Acacia caffra</i>	✓			✓	✓
Jacket-plum	<i>Pappea capensis</i>	✓	✓	✓	✓	✓
Kiepersol	<i>Cussonia paniculata</i>			✓	✓	
Weeping Wattle	<i>Peltophorum africanum</i>			✓	✓	✓
Cheesewood	<i>Pittosporum</i>	✓		✓	✓	✓
Ouhout	<i>Leucosidea sericea</i>	✓		✓	✓	
River Bushwillow	<i>Combretum erthyrophyllum</i>	✓	✓	✓	✓	✓
Tree Fuchsia	<i>Halleria lucida</i>			✓	✓	✓
Shrubs	Scientific Name					
Cape Myrtle	<i>Myrsine africana</i>			✓	✓	✓
Wild Dagga	<i>Leonotis leonurus</i>				✓	
River Resin Bush	<i>Euryops virgineus</i>	✓		✓	✓	✓
Geelblomblos	<i>Phymaspermum acerosum</i>			✓	✓	✓
Bush Violet	<i>Barleria obtusa</i>		✓	✓	✓	✓
Nana-berry	<i>Rhus dentata</i>	✓	✓	✓	✓	✓
Sagewood	<i>Buddleja salvifolia</i>	✓	✓	✓	✓	✓
Small-leaved Plane	<i>Ochna serrulata</i>	✓	✓	✓	✓	✓
Camphor Bush	<i>Tarchonanthus camphoratus</i>	✓	✓	✓	✓	✓
Cape Leadwort	<i>Plumbago auriculata</i>	✓	✓	✓	✓	✓
Holly Cassinopsis	<i>Cassinopsis ilicifolia</i>	✓	✓	✓	✓	✓
Weeping Sage	<i>Buddleja auriculata</i>	✓	✓	✓	✓	✓
Purple Broom	<i>Polygala virgata</i>			✓	✓	✓
	<i>Polygala myrtifolia</i>				✓	✓
	<i>Gymnosporia polyacantha</i>				✓	✓
Ploegbreker	<i>Erythrina zeyheri</i>				✓	
Groundcovers	Scientific Name					
Othonna	<i>Othonna carnosa</i>	✓			✓	✓

Starry Wild Jasmine	<i>Jasminum multipartitum</i>	✓	✓	✓	✓	✓
Forest Spurflower	<i>Plectranthus fruticosus</i>	✓	✓	✓	✓	✓
Creeping Foxglove	<i>Asystasia gangetica</i>		✓	✓	✓	✓
Stalked bulbine	<i>Bulbine frutescens</i>	✓	✓	✓	✓	✓
River Stars	<i>Gomphostigma virgatum</i>	✓	✓	✓	✓	✓
Orange River Lily	<i>Crinum bulbispermum</i>	✓	✓	✓	✓	✓
Scarlet River Lily	<i>Hesperantha coccinea</i>	✓	✓	✓	✓	✓
Scented Grass Bulbine	<i>Bulbine capitata</i>	✓	✓	✓	✓	✓
Pineapple Flower	<i>Eucomis autumnalis</i>	✓	✓	✓	✓	✓
White Arum Lily	<i>Zantedeschia aethiopica</i>	✓	✓	✓	✓	✓
River Lily	<i>Crinum macowanii</i>	✓	✓	✓	✓	✓
Vygies		✓	✓	✓	✓	✓
Paintbrush	<i>Scadoxus puniceus</i>	✓	✓	✓	✓	✓
Agapanthus africanus	<i>Dwarf agapanthus</i>	✓	✓	✓	✓	✓
Gazania	<i>Gazania krebsiana</i>	✓	✓	✓	✓	✓
Fairy Iris	<i>Dietes grandiflora</i>	✓	✓	✓	✓	✓
Yellow Wild Iris	<i>Dietes bicolor</i>	✓	✓	✓	✓	✓
Veld Aloe	<i>Aloe greatheadii</i>	✓			✓	✓
	<i>Aloe parvibracteata</i>	✓			✓	✓
Cape Weed	<i>Arctotheca calendula</i>	✓			✓	✓
Mother-in-laws Tongue	<i>Sanserviera hyacinthoides</i>	✓		✓	✓	✓
Grasses	Scientific Name					
Kweek	<i>Cynodon dactylon</i>	✓	✓	✓	✓	✓
Buffalo Grass	<i>Stenotaphrum secundatum</i>	✓	✓	✓	✓	✓

References

Joffe, P. 2003: Creative Gardening with Indigenous Plants: A South African Guide. Briza: Arcadia

Appendix I – Additional information

- Application Forms
- GIS mapping of the local environment



Gauteng Department of Agriculture and Rural Development

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010 (Version1)

Kindly note that:

1. This application form is to be completed for both the Basic Assessment process and the Scoping & EIA process.
2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. It is in the form of a table that can extend itself as each space is filled with typing.
4. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
5. Incomplete applications 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. Three copies of this form and the attachments must be handed in at the offices of the relevant competent authority as detailed below.
8. No faxed or e-mailed applications shall be accepted. Only hand delivered or posted applications will be accepted.
9. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/Environmental Assessment Practitioner (EAP) must provide any Interested and Affected Party (I&AP's) with the information contained in this application on request, during any stage of the application process.
10. Attachments, where applicable, to this document are to be ordered in the following prescribed manner

Annexure - A	Locality map
Annexure - B	a) Proof of notification to the Land owner b) Proof of receipt of such notice by the owner
Annexure - C	List of all organs of state and State Departments of where the draft report will be submitted, their full contact details and contact person

Annexure -D	Property description list
Annexure -E	Current land use zonings list
Addendum-A	Declaration of Independence by EAP to be submitted with the report if the application form was submitted by applicant -

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
 Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
 P.O. Box 8769
 Johannesburg
 2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
 18th floor Glen Cairn Building
 73 Market Street, Johannesburg

Administrative Unit telephone number: (011) 355 1345
 Department central telephone number: (011) 355 1900

APPLICATION FORM [REGULATION 12 (1)&(2)(A)(B)(I)(II)]

(For official use only)

File Reference

Number:

Application Number:

Date Received:

1. NATURE OF THE ACTIVITY

--

Select the appropriate box with regards to the application form submission

An application for conducting a basic assessment (as defined in the regulations)?

X

A resubmission of an application for conducting a basic assessment (as defined in the regulations)?

An application for conducting a Scoping & EIA process (as defined in the regulations)

A resubmission of an application for conducting a SR & EIA process (as defined in the regulations)

--

If this is a class application, has a copy of approval letter to undertake such an application been attached as such application may/shall not be undertaken without an approval from this Department

NO

Has this project or a substantial similar project which has been previously submitted by the applicant been denied authorisation by the relevant authority in the last three (3) years

YES	NO
YES	NO

If yes will the application contain new or additional material not submitted previously

To be noted that Regulation 68 of EIA Regulations, 2010 states that no applicant may resubmit an application which is substantially similar to an application previously denied authorisation by the relevant authority unless 3 years has lapsed since the refusal or new material is to be presented

2. PROJECT DETAILS

Project title:

Application for a Basic Assessment for a Proposed Poultry Farm on Walkers Fruit Farm

To be noted that the project will be registered under this title and this title must be duplicated through the application life of the project

Local authority(ies) in whose jurisdiction the proposed application will fall

Midvaal Local Municipality

3. ACTIVITY POSITION

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

Alternative:

Latitude (S):

Longitude (E):

26°30'39.013"S

27°57'41.89"E

In the case of linear activities:

Alternative:

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

Latitude (S):

Longitude (E):

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

Property description:

ERF 255, Walkers Fruit Farm

(Farm name, portion etc.) Where a large number of properties (including alternatives) are involved (e.g. linear activities), please attach a list of the property descriptions to this application.

4. ACTIVITIES APPLIED FOR

Describe the activity and associated infrastructure, which is being applied for, in detail

The development activity proposed is a Poultry Farm and a residential unit on a 10ha land at ERF 255 of the Walkersville agricultural area near Vereeniging. The land for the proposed development is currently vacant land and will be developed into a Poultry Farm with a residential unit to house a family. The poultry facility will initially house 120 000 chickens per cycle and will gradually be built up to have the capacity to handle 360 000 chickens per cycle (six-week per cycle). The chickens will be supplied to a contractor who will be contracted to the activity.

Poultry Farming:

Six coops with all the amenities conducive to raising chickens will be built on the property for poultry farming. The whole house (coop) is heated and brooder rings are placed around each brooder (heating) unit. These rings create a microclimate relative to the rest of the room to prevent drafts and keep the birds near each other and near the feed and water. The nipple or cup waterers in each pen will be fully functional and supplemental jug waterers in the brooder rings will be kept filled.

Acquiring Stock:

The proposed Poultry Farm will acquire its stock through buying chicks. Buying chicks is more economic and safe. The proponent will make sure that the chicks have hatched from eggs laid by clean stock (with no diseases).

When the birds arrive at the farm, they will be placed into the rings and introduced to the waterers and feed. Feed is placed in the feeders and on paper placed on the floor of the pen to encourage young birds to eat. Generally, broilers are brooded in a portion of the house until a certain age before being given access to the entire barn. These facilities or houses generally have litter floors.

Selecting the Right Breed:

The proposed Poultry Farm will be raising chickens for meat production. The most preferable breed for the development is Ross and this type of breed mature in just 6 weeks.

Housing:

Six chicken coops will be used to house the chickens. Sizable coops (120m X 15m) will be enough to accommodate the birds and provide optimum conditions for growth. The six coops will be enough to house the chickens and will also cater for their needs for adequate space to exercise and rest. The coops will also be fully automated (computerized) protect the chickens from wind, rain and other extreme environmental conditions. A fence will be installed to protect the entire property.

Temperature, Environment and Cleanliness:

The temperatures will of the coops will be automated (refer to housing above). The coops will be cleaned regularly so that the chickens do not catch any diseases due to poor hygiene.

Food and Vaccinations:

Food and water will be placed throughout the coop in feeders and waterers. Birds feed will be supplied and regulated by the contractor. Troughs will be built to avoid feed wastage and automatic fountains for providing freshwater at all times may be considered. A dedicated Vet will be assigned for vaccination purposes on site.

Lack of immunity can be induced by poor nutrition, overcrowding and dirty environmental conditions. Good nutrition and vaccination of the stocks will be used to counter this problem. Maintaining hygiene in the coops will also keep diseases away.

APPLICATION FORM [REGULATION 12 (1)&(2)(A)(B)(I)(II)]

Residential unit:

A standard home will be built on the property to house the family.

Services:

The proposed activity does not require new expansion in terms of infrastructure to be installed as most of the services exist in the area. There is already an existing network of services provided by the local authority in the vicinity of the property where this proposed activity will take place. Access roads to the property are available and serviced by the Midvaal Local Municipality.

Water – There is an existing borehole on the property with the capacity to pump 5 000 litres of water per hour. The proposed activity requires 10 000 litres of water per day for the poultry farm. This water will be sourced from the existing borehole available on the property. A Water Use Licence (WUL) application process has been initiated which runs in parallel to the Basic Assessment application. The Midvaal Local Municipality will provide water for household consumption.

Electricity – Eskom will provide electricity for household and commercial (farm related) consumption.

Sewerage services – The Midvaal Local Municipality will be approached to connect the household and farm sewerage facilities to the existing sewer system in the Walkersville area.

Which Listing Notice is the activity(ies) listed under?

Listing Notice 1

☒

Listing Notice 2

☐

Listing Notice 3

☐

If "or also" listed under Listing Notice 3, describe the Geographical Area triggering the activity and its regional, provincial, national & international significance

N/A

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed.

Indicate the number and date of the relevant Government Notice:

Activity No (s) (in terms of the relevant notice): e.g. Listing notices 1, 2 or 3

Describe each listed activity as per the wording in the relevant listing notice:

GN R.544, 18 June 2010	5	Construction of facilities and infrastructure for the concentration of: (i) more than 1 000 poultry per facility situated outside an urban area, including chicks younger than 20 days
GN R.544 18 June 2010	8	The construction of a hatchery or agri-industrial infrastructure outside industrial complexes where the development footprint covers an area of 2 000 square metres or more
GN R.544 18 June 2010	23	The transformation of undeveloped, vacant and derelict land to – (i) Residential, retail, commercial, industrial, or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectares but less than 20 hectares.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

5. OTHER AUTHORISATIONS REQUIRED**5.1 DO YOU NEED ANY AUTHORISATIONS IN TERMS OF ANY OF THE FOLLOWING LAWS?**

4.1.1 National Environmental Management: Waste Act	Yes/No
4.1.2 National Environmental Management: Air Quality Act	Yes/No
4.1.3 National Environmental Management: Protected Areas Act	Yes/No
4.1.4 National Environmental Management: Biodiversity Act	Yes/No
4.1.5 Mineral Petroleum Development Resources Act	Yes/No
4.1.6 National Water Act	Yes/No
4.1.7 National Heritage Resources Act	Yes/No
4.1.8 Other (please specify)	Yes/No
4.2 Have such applications been lodged already?	Yes/No

6. BACKGROUND INFORMATION

Project applicant:	Adolinda Ann Naicker		
Trading name (if any):	N/A		
Contact person:	Miss Adolinda Ann Naicker		
Physical address:	139 Craneflower Road, Savannah Hills Estate, Midrand, 1686		
Postal address:	P O Box 11745, Vorna Valley, MIDRAND		
Postal code:	1686	Cell:	072 650 1177
Telephone:	N/A	Fax:	N/A
E-mail:	ann.naicker@vodacom.co.za		

Project Environmental Assessment Practitioner:	Moses Mathebula		
Contact person:	Moses Mathebula		
Postal address:	122/2 Lourens Drive, Beaulieu, MIDRAND		
Postal code:		Cell:	071 875 9437
Telephone:		Fax:	086 270 9637
E-mail:	moses@envirokey.co.za		
EAP qualifications & relevant experience	BA Hons (Geography); 9 years of experience in the academic sector in Environmental Management and Environmental Impacts Assessment processes.		
Professional affiliation(s) (if any)	International Association for Impact Assessment (South Africa) (IAIA)		

Landowner:	Adolinda Ann Naicker		
Contact person:	Ann Naicker		
Postal address:	P O Box 11745, Vorna Valley, MIDRAND		
Postal code:	1686	Cell:	072 650 1177
Telephone:	N/A	Fax:	N/A
E-mail:	ann.naicker@vodacom.co.za		

In instances where there is more than one landowner (including for alternative sites), please attach a list of landowners with their contact details to this application.

In instances where the landowner is not the applicant –attach proof of notification of the landowner and a proof of receipt of such notice by the owner, manager or person in control of the land.

List of the land owner is attached	N/A
Landowner notification proof is attached	N/A
Landowner proof of receipt of such notification is attached	N/A

Local authority in whose jurisdiction the proposed activity will fall:	Midvaal Local Municipality		
Contact person:	Mr Jako Verster		
Postal address:	P O Box 9, Meyerton		
Postal code:	1960	Cell:	082 783 0057
Telephone:	016 360 5860	Fax:	016 590 1008
E-mail:	jakov@midvaal.gov.za		

APPLICATION FORM [REGULATION 12 (1)&(2)(A)(B)(I)(II)]

In instances where there is more than one local authority involved (including for alternative sites), please attach a list of local authorities with their contact details to this application.

List of local authorities is attached

List of properties is attached

Town(s) or district(s):
Street/Physical address:

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

List of towns or districts is attached

State Departments administering a law affecting the environment:

Contact person:

Postal address:

Postal code:

Telephone:

E-mail:

Department of Water Affairs			
Mrs Sebina Phochana			
The Regional Director, Private Bag X995, Pretoria			
0001	Cell:	071 3250 2010	
012 392 1374	Fax:	012 3921359	
phochanas@dwa.gov.za			

In instances where there is more than one State Department involved, please attach a list of all State Departments with their contact details.

Current land-use zoning:

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

List of current land use zonings is attached

Locality map:

A locality map(s) (including alternatives) must be attached to the back of this document, as Annexure A. The scale of the locality map must be between 1:10 000 and 1:50 000. The scale must be indicated on the map. The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road 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;
- all rivers within a 1km radius of the site or alternative sites; and
- a north arrow.

7. COMPLIANCE WITH CONDITIONS

Have you ever been in non-compliance with a condition of an authorisation or exemption issued by this Department or any other provincial or national environmental department in terms of the Environment Conservation Act (No 73 of 1989) or the National Environmental Management Act (No 107 of 1998) as amended?

YES	NO

If yes, indicate details of non-compliance together with reasons for non-compliance:

Attach all relevant documentation e.g. compliance audit reports, pre-directives, directives, compliance notices

8. ACTIVITY INFORMATION

Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R
18 000 000.00

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

R
5 000 000.00

Will the activity contribute to service infrastructure?

YES	NO
-----	----

Will the activity contribute to a public amenity?

YES	NO
-----	----

Total number of new employment opportunities to be created in the development phase of this activity.

30

Of these opportunities how many are:

Women

50%

People with disabilities

Female

10%

Male

50%

Youth

Female

80%

Male

80%

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

R1 000 000.00

What percentage of this will accrue to previously disadvantaged individuals?

100%

Total number of new employment opportunities to be created in the operational phase of this activity.

100%

Of these opportunities how many are:

Women

50%

People with disabilities

Female

10%

Male

5%

5%

Youth

Female

50%

Male

50%

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

R
10 000 000.00

What percentage of this will accrue to previously disadvantaged individuals?

100%

Need and desirability of the activity

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

The poultry industry is not just the most important component of the food value chain in South Africa, it is an essential one. The industry is the biggest single supplier of protein to the South African consumers and is also the single largest component of the agricultural sector in South Africa by turnover. More chicken meat and eggs are consumed per capita than all other animal protein sources combined. It is for these reasons that the South African food security and the industry are closely intertwined.

Local poultry production has increased significantly over the last 20 years, but has not been able to meet the massive increase in local demand for white meat, and chicken is now one of South Africa's largest agricultural imports. There is currently high demand for chicken products within South Africa that the local producers do not meet.

It is envisaged that the proposed development and transformation of the Walkers Fruit Farm into a poultry farm will have a positive input in the local production of poultry products within South Africa. The activity will produce 360 000 chickens per cycle on a 10ha farm to reduce the amount of white meat (poultry) that South Africa imports.

Under the National Environmental Management Act (Act 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010, Walkers Fruit Farm would like to now apply for a Basic Assessment (BA) authorisation in order to comply with environmental legislation requirements. In complying with the NEMA and EIA regulations, the proposed

APPLICATION FORM [REGULATION 12 (1)&(2)(A)(B)(I)(II)]

Poultry Farm will need to align its proposed operation with the Environmental Management Programme Report (EMPR) that will be compiled and submitted to GDARD for approval. Compliance with the EMPR will improve the environmental management of the Poultry Farm on site. This is a good motivation for authorizing a Basic Assessment for the site, in order to determine the potential significant impacts on the environment, and improved environmental management will further minimize environmental risks associated with the poultry farm.

Indicate any benefits that the activity will have for society in general:

Walkers Fruit Farm will like to transform the current vacant land into a productive Poultry Farm within the Midvaal Local Municipality. The Poultry Farm will contribute significantly in decreasing the gap between the demand and supply of chicken products by local farmers. By producing poultry locally, the proposed Poultry Farm will ensure that there will be financial injection into the national economy. In addition, the Poultry Farm will provide employment and training opportunities for the local economy and improve the social well-being of local people.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

The local economy will be supported by the proposed Poultry Farm in terms of employment opportunities, apprenticeships and training. This allows for an improvement in local skills and provides income to households working for the farm.

9. DECLARATIONS

The Applicant

I, **Adolinda Ann Naicker**, declare that I -

- am¹, the applicant in this application for **“Application for a Basic Assessment for a Proposed Poultry Farm on ERF 255, Walkers Fruit Farm”**
- have appointed an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2010, including but not limited to –
 - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
 - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
 - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
 - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
 - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and
- I am aware that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the applicant²/ Signature on behalf of the applicant:

Name of company (if applicable):

Date:

Signature of the Commissioner of Oaths:

Date:

Designation:

Commissioner of Oaths Official stamp (below)

ADDENDUM A

¹ If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.

² If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.

10. DECLARATIONS³

The Environmental Assessment Practitioner;

- I, **Moses Mathebula** declare under oath that I –
- I act as the independent environmental practitioner for this “**Application for a Basic Assessment for a Proposed Poultry Farm on ERF 255, Walkers Fruit Farm**”
 - I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
 - I declare that there are no circumstances that may compromise my objectivity in performing such work;
 - I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
 - I will comply with the Act, regulations and all other applicable legislation;
 - I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
 - I have no, and will not engage in, conflicting interests in the undertaking of the activity;
 - I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
 - I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
 - I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
 - I will keep a register of all interested and affected parties that participated in a public participation process; and
 - I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
 - all the particulars furnished by me in this form are true and correct;
 - will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
 - I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

For Basic Assessment applications I further declare under oath that:

- I will fix the site notice(s) in a conspicuous place, on the property(ies) where it is intended to undertake the activity(ies)
- I will place a notice in the required newspaper(s)
- I will provide the following with all the project information and give I&AP's an opportunity to register as an I&AP
 - landowners and occupiers of adjacent land
 - landowners and occupiers of land within 100 metres of the boundary of the property
 - the ward councillor
 - any organisation that represents the community in the area of the application
 - the municipality which has jurisdiction over the area in which the proposed activity will be undertaken
 - any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- I will include on the register all persons as required per Regulation 55 (1) (c)
- The Reports as submitted will contain the same information (including layout, project design and mitigation) as provided to the registered I&APs for comment
- All issues raised by the I&APs during the public participation process will be included in the Comments and Response Report as attached

Signature of the Environmental Assessment Practitioner:

Name of company:

Date:

³ Addendum A must be completed and submitted with the report if application form was done and submitted by the applicant.

APPLICATION FORM [REGULATION 12 (1)&(2)(A)(B)(I)(II)]

Signature of the Commissioner of Oaths:

Date:

Designation:

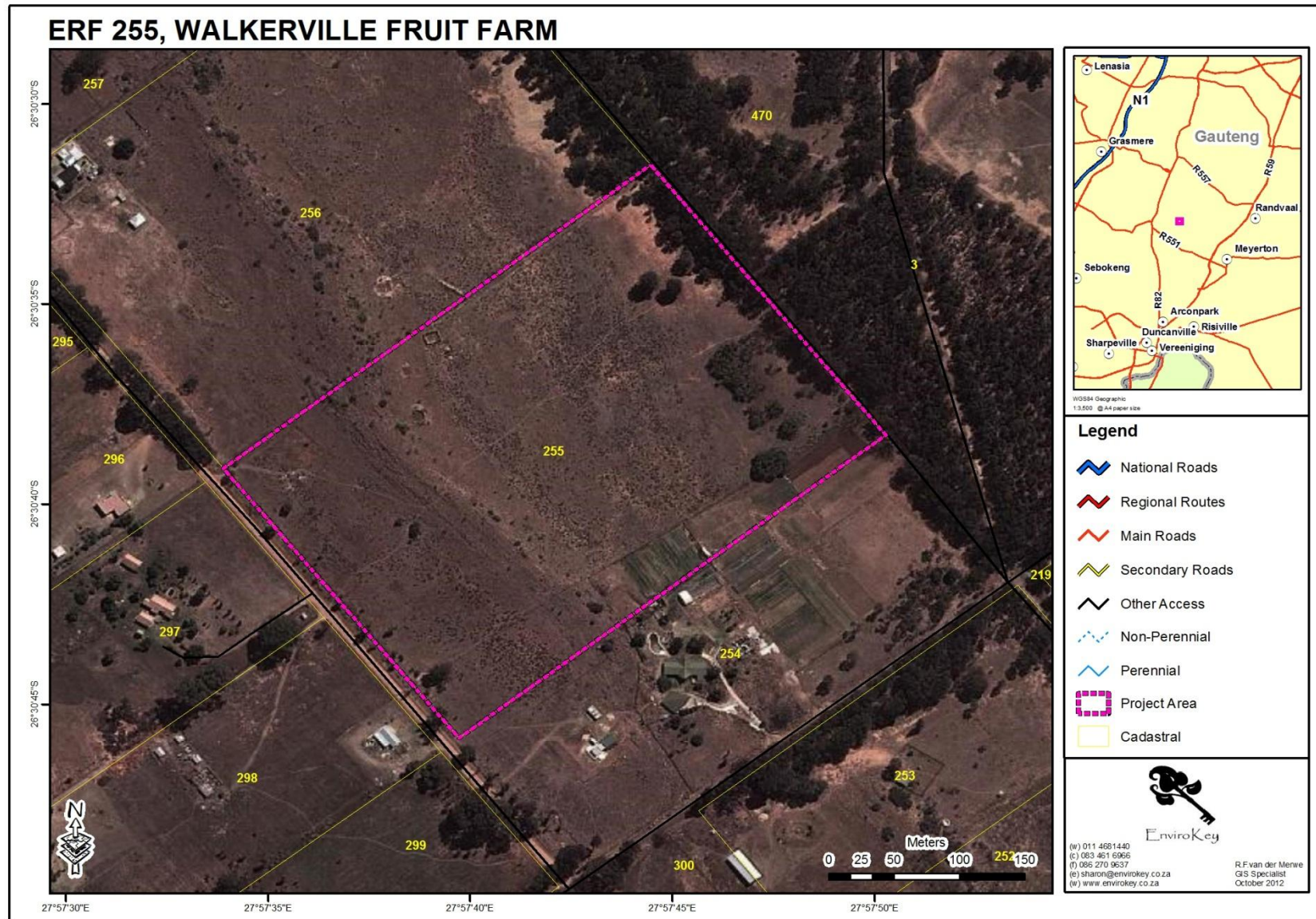
Commissioner of Oaths Official stamp (below)

11. CHECKLIST

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

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed; and
- The form has been signed by the applicant, by the EAP or both.

APPENDIX A



APPENDIX B

